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Medical Times and Gazette.

A

JOURNAL OF MEDICAL SCIENCE,

LITERATURE, CRITICISM, AND NEWS.

VOLUME II. FOR 1882.

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LONDON:
PUBLISHED BY J. & A. CHURCHILL, 11, NEW BURLINGTON STREET;
AND SOLD BY ALL BOOKSELLERS.

MDCCCLXXXII.

LONDON:
PARDON AND SONS, PRINTERS,
PATERNOSTER ROW.

PRESIDENT'S ADDRESS

AT THE OPENING OF THE

THIRTY-THIRD SESSION OF THE

GENERAL MEDICAL COUNCIL.

At the close of the last session of the Council two questions of detail in administration were raised, which fully deserved the attention they then received: first, whether there should not be a fixed time for the annual meeting of the Council: and second, whether it would not be expedient, at all events in the present year, to meet at Easter. These questions are now alluded to, because I desire at once to draw the attention of the Council to certain subjects of importance connected with them. They weighed with me in not promoting in either direction the expressed wishes of several members of the Council.

Firstly. At a time when a Royal Commission was sitting to inquire into the working of the Medical Acts, with, as was well known, the certainty of strong pressure being put on the Commission to recommend the reconstitution of the Council, it seemed improper, and possibly also futile, to attempt to fix a date for the future meetings of a body which might perhaps no longer exist.

Secondly. It seemed to me that it would be to trespass needlessly on the time of members of the Council to summon them before they had received the Report of the Visitors appointed, in July, 1880, to visit the several medical and surgical corporations in England, Scotland, and Ireland, during the year 1881.

Thirdly. It was clearly desirable that the meeting of the Council during this year should be fixed for such a time as would probably enable it to be cognisant of the Report of the Royal Commission on the Medical Acts. By a general agreement among the members, the present has seemed to be the most suitable time for our reassembling in the thirty-third session.

The first business, then, of the Council relates to the Visitors' Report, which will to-day be formally submitted to you, together with remarks thereon by the various bodies visited.

It would not become me to express any detailed opinion as to the manner in which Mr. Teale, Professor Gairdner, and Mr. Stokes have fulfilled the task which they undertook. The Report and the remarks thereupon were forwarded to the members of the Council individually, as soon as they were printed, in order that when they were laid before the Council they might, if it were so desired, be at once discussed with full previous knowledge. On one point it is my duty to speak, and I do so with confidence. It is of my knowledge that the pains which have been taken by your visitors were such as could hardly have been required at the hands of any professional men; the sacrifices, to which they have voluntarily submitted, having been such as nothing but a keen appreciation of the importance of their new and special task would have induced them to undergo. They acted on public grounds for the following public objects:—

First. That an official record of the condition of the examinations, as conducted by the corporations, after over twenty years of the existence of the Medical Council, might be thereby obtained. This record has been made by the same reporters, with the experience of the former reports, which, be it observed, were made by visitors who had not been enabled to survey the examinations as a whole, or to compare them with one another, since each had visited only a certain portion of the bodies.

Secondly. That when the visitors had made their observations on the several bodies, and had then, with considerable labour, compared them one with the other, they might be enabled to frame a common report, so that the impressions they had themselves received might be subjected to the criticism equally of the individual bodies, of the General Council assembled, of the medical teachers, and of the profession generally.

There were special reasons at the time why this task was one from which less sincere men might even without blame have shrunk. One was, that the appointment of the Royal Commission would at first sight make the work seem of little value; and another, that the bodies themselves, for that reason, might not view the new inquiry with favour. But both of these plausible reasons had no weight with the visitors. You had, by a resolution of July 16, 1880, specially directed them to inquire into the causes of the rejections. Time was, and that not long since, when the chief allegation against the licensing bodies was that many men passed who passed only in order to fill the coffers of the body they joined. A new question had now arisen, which, in the opinion of persons so eminent as Professor Humphry and the late Professor Rolleston, demanded your attention, "why so many were rejected." To many minds this charge and counter-charge indicated difficulties in education and examination, into the nature of which it was a public duty to search without delay. It was felt that whether the present executive continued to exist, or whether it was to be changed by Parliament, the interests of student, teachers, examiners, and the public, showed that delay in this inquiry was much to be deplored. The visitors have laboured for you in this important matter without stint. Their conclusions are now laid before you for consideration.

I do not presume to discuss the remarks made by the several corporations on the Report. They will all, according to the Standing Orders, be laid, with the Report itself, on the table of the Council. The remarks are interesting for their variety, and for the different views which they take of the position of the education and examination question as described by the visitors.

Upon the whole, it cannot be reasonably doubted that these several documents will materially aid thoughtful persons in coming to conclusions as to whether it is, or is not, desirable to continue to press for a diminution of the number of the licensing bodies; as to whether there should be a combined board or boards to represent the existing authorities; as to whether there should be one or more central State examinations; as to whether the present freedom of the existing local bodies should continue, combined or not combined with a system of coadjutor examiners, or of visitation, and of a power to report on them by a central authority, however constituted; as to whether the central authority should control in any sense the methods of teaching in the schools; and as to whether there should be any central regulations regarding the conferring honours for attainments above the minimum standard of medical knowledge required by the State. These and other questions have yet to be answered. None of the corporations enter upon these topics in their remarks.

It is not therefore to be supposed that this Report can be final. From its very nature it touches only part of the subject. It has already, indeed, given rise to many valuable remarks (such as those of the Royal College of Surgeons of England) on what is, according to the experience of that and other bodies, the best method for carrying out the object of examinations, namely, the guiding of the studies, and ascertaining, with reasonable certainty, the practical fruit which they have borne. The Report hardly gives any new clue to the solution of the difficulty how so to combine local freedom of teaching with central control of examinations, or how to reduce the amount of "cram," and evoke the powers of observation and reflection in our youth.

In relation to the Report of the Royal Commission, which has just been made public, and for copies of which we have to thank the Royal Commissioners, I venture a very few observations. For now eleven years the Council has laboured under an abiding difficulty which it was powerless to remove. Parliament had in 1858 enabled all the licensing authorities of our profession to send to a common Council a representative. The authorities in England, Scotland, and Ireland at that time had in many respects conflicting interests. These had to be fought out in the Council, in continuation of contests which had resulted in the passing of the Act of 1858. Notwithstanding these difficulties the Council, in a very few years, produced a complete Register of the profession; exercised discipline which had never before existed; put an end to animosities between institutions; digested a national Pharmacopœia; created the efficient conduct of a central office, which was gradually collecting and diffusing information of educational value to the whole medical profession and to the country at large; and brought about a marked improvement in education,

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general and professional. This is well illustrated by the fact that the Royal College of Surgeons of England has relinquished its examination in Arts for examinations to be conducted by the national educational bodies in compliance with the strongly expressed desire of the Council, that the same tests of general education as belong to the higher education of the country should be also applied to all medical students; and at the same time one of the older universities agreed to establish special local examinations at the period of the year most suited to the circumstances of youths about to enter the profession of medicine.

Among other things which the Council advocated and would have carried out in some form, under the pressure, no doubt, of Lord Ripon's Bill, in 1871, was a fusion of the licensing bodies for examination purposes. But suddenly all progress was blocked by discussions on the constitution of the Council, carried on within the profession so persistently that I acknowledge with deep regret that, justly or unjustly, a doubt has been thrown on the wisdom of Parliament in having entrusted the education of our profession to the representatives of our old institutions, though it is by them that medical education and medical science have been raised to their present condition in Great Britain. Had Lord Ripon's Bill passed, we should for the last ten years have been working a combined-examination system of some description. No one would have been placed in the Medical Register who had not had a complete medical, surgical, and obstetrical education. Our whole force would have been harmoniously expended on perfecting that education, and on solving the various problems which, in consequence of the vast progress of knowledge, year by year present themselves. As it is, we have necessarily been distracted by collateral discussions on Parliamentary Bills which have failed to pass, and we have been, without ceasing, impeded by the doubts and uncertainty attending deferred legislation.

Yet, even as it is, no one who attends dispassionately to the state of medicine in this country, can but be aware of the progress in the knowledge and character of our medical students, or can fail to know the patience, energy, and skill of our younger teachers, the improvement in our institutions, and the increasingly philosophic, as well as benevolent, tone which generally pervades the hard-working masses of our profession. We want now in its education chiefly united effort, with reasonable freedom. For my own part, I cannot convince myself, after many years' observation and experience, that the principle on which the Legislature constructed the Council in 1858 was erroneous. Yet I would devote my utmost energies to bring about at the earliest moment the formation of any Council which could be left undisturbed to use the powers which the Legislature might accord to it, and to work for the common purpose of promoting the steady growth of medical knowledge, as distinguished from medical politics, which belong to voluntary organisations, and not to a responsible Council of Education.

Whether the Council which the Royal Commission recommends is the best that can be devised, and whether Parliament will adopt the recommendations of the Commission, which are not unanimous, are propositions into which, together with other topics arising from the Report of that Commission, I feel precluded from entering on this occasion. The Council is much indebted to the Earl of Camperdown and the other Royal Commissioners, with Mr. White, their secretary, for the manner in which they have forwarded their Report at the first possible moment to the Council, so that it might be in your hands this day. Of the care, ability, and courtesy with which the Commission has carried on that which it designates an intricate and laborious inquiry, the Council will, I am sure, entertain but one opinion. It will rest with the Council to say whether it will take now any step with regard to the Commissioners' Report, or whether it will wait until a Bill founded upon it is brought into Parliament, and is submitted to it.

It remains for me only to name certain topics of a more restricted kind.

The Lord President has forwarded, for the consideration of the Council, a draft Bill for the Regulation and Registration of Midwives. This important Bill will be laid before you

Since the last meeting a case involving certain legal questions has occurred, which may be thought worthy of consideration by a special committee.

A registered practitioner assumed a title which he did not possess. The body whose title he assumed felt itself unable or unwilling to restrain him or remove his name from its roll. What course should the General Council pursue in any such case? There has been always an indisposition on the part of the Council to act as public prosecutor. But manifestly, the duty to keep the Register free from improper persons implies also the duty to take steps to bring professional irregularities under the cognisance of the law, if not so brought by other agencies. When once a legal conviction has been obtained, the course of the Council is clear under Section 29 of the Medical Act. In other cases that come under the same section, the Council has to decide as to what implies infamous conduct in a professional respect. It has been decided that the whole Council, and the whole Council alone, can remove a name from the Register, and that the power to do so cannot be delegated. But the machinery of a large Council meeting annually is for this purpose both cumbrous and slow. The subject has been considered before, and may have to be brought before you again. The case of Mr. Murdoch in relation to certificates may serve to raise this question also in a practical form.

The legal points arising out of the vexed question of who are *bonâ fide* dentists, and what names ought to have been or ought to be removed from the Dentists' Register, cannot be left unnoticed.

The costliness of the visitation of the corporations has attracted observation. It is well to observe that the visitors were assured by your President that whatever clerical or other help they needed to lighten their personal labour, and whatever assistance could be given by the Council's printers, were to be at their disposal. In this instruction I feel sure of your concurrence. You will be glad to know that, notwithstanding this unusual expenditure, the treasurers of the English Branch Council have been able to invest this year £4000, making a total capital now invested by the English Branch Council of £29,000.

The work of the office, under the assiduous care of the Registrar, will, I doubt not, meet with your approval. It was my privilege on your behalf to explain in this office, together with some other members of the Council and your Registrar, to several foreigners of distinction, at the time of the meeting of the International Medical Congress in August last, the working of the British Medical Acts, the system of registration, and the nature of the Council's recommendations and powers in relation to education. It is not too much to say that they were greatly interested by the inspection of the various books, registration forms, reports, and minutes of the Council.

The several matters of formal business, and the notices of motion which have been submitted to you, need not, of course, be named.

I conclude this brief address—should a new Bill pass, the last I may be called upon to give to you—with only one further remark. There remain now only three members of the Council who first undertook the duties which Parliament assigned to it. They have shared their work, from 1858 till now, with some of the most honourable and most patriotic of men, among whom I may name, for instance, Brodie, Christison, Syme, Green, Sharpey, Parkes, Begbie, Stokes, Rolleston. I name but some of the dead. Would I might also speak of the living who, from various causes, have ceased to be with us. I will dare to speak for the whole Council when I say, in the spirit of all these men, that should Parliament, by any changes, relieve us from the work which Parliament laid upon us, we shall surely rejoice. If, by so relieving us, the care of conducting medical education for the public good be lightened, none will hail a new Council, which shall fulfil that condition, with more hearty goodwill than the old. Till the day when that relief come, we shall continue to discharge our duties to the best of our ability, and to the utmost extent of our knowledge, and to the full extent of our powers.

THE "JOHNS HOPKINS" HOSPITAL.—A correspondent writing from Baltimore to the *Boston Medical Journal* (April 27) states that, although the building of this magnificent edifice was begun five or six years ago, and about fifteen million bricks have been laid, half of the twenty wards and separate buildings only have been finished; another six years will be required before patients can be admitted. When completed, however, it is likely to prove the most perfect edifice of the kind in the civilised world.

THE HARVEIAN ORATION.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS, *June* 24, 1882.

By GEORGE JOHNSON, M.D., F.R.C.P., F.R.S.,

Professor of Clinical Medicine in King's College, Senior Physician to King's College Hospital.

MR. PRESIDENT AND GENTLEMEN,—After accepting the invitation with which you, Sir, honoured me, to undertake the arduous and responsible duty of Harveian Orator, my first intention was to take as the main subject of my address the additions to our knowledge of the vascular system, with its nerve supply, which have been made within the last thirty years, and thus to continue the history of this interesting subject from the point at which, for want of time, it was left by Dr. Sanderson in the learned oration which he delivered here four years ago. On further consideration, however, it appeared to me that my attention should, by preference, be directed to the systematic attempts which have recently been made in Italy to rob our illustrious Harvey of the honour which for two centuries and a half has by almost universal consent been conceded to him, and to claim for the Italian Cesalpino (Latin, Cæsalpinus) the credit of having anticipated Harvey in the discovery and demonstration of the circulation of the blood. These attempts to exalt Cesalpino at the expense of Harvey have been referred to and refuted by the late Dr. R. Willis, in his admirable volume entitled "William Harvey," London, 1878. But the subject is so important and so full of interest for this College that it may well occupy all the time at my disposal to-day.

It will be remembered that Dr. Sieveking, in his interesting oration delivered in 1877, referred to the fact that a monument in honour of Cesalpino had recently been unveiled in Rome. I am indebted to the kindness of Dr. Pantaleoni, the eminent Roman physician and senator, for a copy of the two orations(a) which, at the inauguration of that monument, were delivered in the presence of a large assembly of learned professors and other eminent and representative men of Italy. The orators were Professors Scalzi and Maggiorani. The former spoke of Cesalpino as an eminent anatomist, botanist, and mineralogist; while the latter referred to him as a distinguished philosopher. Both these learned professors in the course of their addresses mentioned in terms of praise a work by Dr. Ceradini,(b) Professor of Physiology in the University of Genoa, the second edition of which had been recently published.

In this volume of three hundred royal octavo pages the author professes to give a true history of the discovery of the circulation of the blood. Professor Scalzi declares this work to be a "publication of the highest interest for physiological science and the history of medicine;"(c) and Professor Maggiorani,(d) at the conclusion of his address, expresses gratitude to "Professor Ceradini, who on this festive occasion has presented to the Academy his learned volume, wherein that which heretofore had been only more or less a belief as to Cesalpino's discovery, has become, by means of new arguments, a scientific demonstration." Professor Ceradini's volume, therefore, is a work of authority and influence—at any rate among his fellow-countrymen,—and as such I have deemed it worthy of a careful study and analysis, with results which I will presently endeavour to set before you. A critical examination of this imposing volume is rendered more necessary by the fact that Cesalpino's published writings being very scarce, and to be found only in large libraries, Dr. Ceradini's version of their physiological teaching will be accepted as trustworthy by all who have not both the opportunity and the inclination to compare his statements with the original treatises.

In the preface to his book Dr. Ceradini suggests, with an evident feeling of satisfaction, that the determination of the Royal Medical Academy of Rome to place within the walls of the University an engraved tablet declaring Cesalpino to be the discoverer of the circulation of the blood, may have been influenced by the more complete demonstration of Cesalpino's claims which he had been able to give in the first edition of his historical treatise.

I now proceed to quote, as fully as time permits, the chief statements and arguments upon which Dr. Ceradini relies to establish his position that the Italian Cesalpino was, and that our English Harvey was not, the actual discoverer of the circulation of the blood, and I will endeavour to estimate at its true value the judgment of Harvey's critic and accuser. Dr. Ceradini's statement with regard to Harvey is to this effect—that during the four years from 1598 to 1602, which Harvey spent as a student at Padua, he must have become acquainted with Cesalpino's writings,(e) some of which had been published about thirty years before; that in these writings Harvey must have seen that the true doctrine of the circulation of the blood was clearly set forth and completely demonstrated; that Harvey designedly delayed the publication of his work "De Motu Cordis et Sanguinis" until 1628, twenty-five years after the death of Cesalpino, and nine years after the death of Fabricius, when his adversaries could adduce no proof that his affected ignorance of the discovery of Cesalpino was a mere pretence (page 172). Ceradini quotes the well-known passage in which Harvey expresses his fear lest, through the novelty of his discovery, he should have all mankind for his enemies (Coll. Ed., page 47: Dr. Willis's trans., page 45); and on this he makes the following comment: "No one can doubt that by these subterfuges the Englishman designed to usurp for himself the glory of a discoverer."(f)

Harvey's adverse critic asserts that his doctrine of the general circulation was based almost exclusively on the presence of valves in the veins (page 275), which had been first discovered, or at any rate more fully demonstrated and described, by Harvey's anatomical master, Fabricius; and Ceradini affirms that this evidence in support of the doctrine of the circulation is all that Harvey could add to Cesalpino's prior and complete demonstration. Referring to the life of Harvey prefixed to the Latin edition of his works which was published by the Royal College of Physicians in 1766, Dr. Ceradini says: "It lacked the foundation of truth, and therefore, notwithstanding the efforts of the biographer and of his natural allies, the whole College of Physicians, the defence of Harvey was so void of reason, so audaciously partial, so utterly valueless."(g)

The author admits with regret that some eminent physiologists had pronounced in favour of the claims of Harvey to be the real discoverer of the circulation of the blood; but this perversity of judgment he attributes either to ignorance or to bad faith. In particular he declares his belief that the illustrious Haller (h) and two of Cesalpino's own countrymen, Malpighi and Baglivi (page 205), had their judgments perverted by the lamentable fact that they had been elected Fellows of the Royal Society of London.

Ceradini allows, as an excuse for Harvey's pretensions, that, inasmuch as he had contributed somewhat to the complete demonstration of his predecessor's doctrine, and had undergone great labour in his endeavour to make it known

(a) Inaugurazione della lapide ad Andrea Cesalpino; due discorsi letti in questa occasione dai Prof. F. Scalzi e C. Maggiorani. Roma, 1876.

(b) "La Scoperta della Circolazione del Sangue," del Dott. G. Ceradini, Prof. di Fisiologia all' Università di Genova. Milano, 1876.

(c) "Pubblicazione di sommo interesse per la scienza fisiologica e per la storia della medicina" (page 23, note).

(d) "Giustizia vuole che in tal momento si esprime un senso di riconoscenza al Prof. Giulio Ceradini che si fece occasione di questa festa col dono fatto alla nostra Accademia del suo dotto volume, ove quel che dianzi non era stata che voce più o meno accreditata intorno alla scoperta di Cesalpino, divenne per i nuovi argomenti una dimostrazione scientifica" (page 62).

(e) Ceradini, page 171, etc.

(f) "Nessun dubio che con questi sotterfugi l'Inglese mirasse ad usurpare il vanto di scopritore" (page 175). It is interesting to note that Harvey's fears were not without reason. "John Aubrey tells us he had heard him (Harvey) say that after his book on the 'Circulation of the Blood' came out, he fell mightily in his practice; 'twas believed by the vulgar that he was cracked-brained, and all the physicians were against him" (Dr. R. Willis's "William Harvey," page 265).

(g) "Mancava però al biografo il fondamento della verità, ed ecco perchè malgrado gli sforzi suoi e quelli dei naturali suoi alleati, i colleghi tutti del Collegio Medico di Londra, la difesa di Harvey riesciva così vuota di ragioni, così sfacciatamente parziale, così nulla" (page 275).

(h) Haller's judgment was as follows: "Aliqui non Cesalpino, ob paucas aliquas et obscuri sensus voces sed Harveio, numerosi simorum experimentorum laborioso auctori, gravique scriptori argumentorum omnium quæ ex ævo proferri poterant immortalem gloriam inventi circuitus sanguinis debent." "Elementa Physiologiæ," L. III. sect. 3, § 32. Upon this Dr. Ceradini remarks: "Singolare giudizio davvero, ma che sarebbe anche più singolare, se Haller non si fosse trovato nella stessa difficile condizione di Malpighi e Baglivi, nella condizione cioè di membro della Reale Accademia di Londra" (page 266).

and to overcome the infinite prejudices by which it was opposed, he may at length have persuaded himself that Cesalpino's discovery was actually his own. But he proceeds to say that these considerations, while they in part justify Harvey's conduct, avail not to excuse that of his fellow-countrymen, who to this day, in spite of truth and justice, believe, or feign to believe, him to be the discoverer of the circulation of the blood—perhaps, he sarcastically adds, in order not to deprive themselves of the pretext for an annual celebration of his memory *inter pocula*.(i)

I will venture to say that if Dr. Ceradini had been a contemporary of Harvey he would have received from the object of his attack no other notice than that contained in the following sentence:—"Detractors, censurers (momos), and writers defiled with abuse, as I have resolved with myself never to read them, satisfied that nothing solid or excellent, nothing but malediction, was to be expected from them, so have I held them still less worthy of an answer" (Coll. Ed., page 109; Dr. Willis's trans., page 109).

In my endeavour to refute these monstrous charges against the greatest ornament of our College, and one of the greatest benefactors of the human race, I shall make no attempt to emulate the quite inimitable good taste and style of the Genoese Professor; but I shall endeavour, and I trust successfully, to show that, however diligent may have been Harvey's study of Cesalpino's writings, he could never have obtained from them that which is not to be found therein—viz., a knowledge of the circulation of the blood; and that those who pretend to find in these writings the true doctrine of the circulation, endeavour to establish their position by giving to some chance expressions a meaning which the context shows could never have been in the mind of their author: while interpreting Cesalpino's vague and contradictory statements by the light of Harvey's researches, they ungratefully turn upon the real discoverer and accuse him of conscious plagiarism. This surely is very like an attempt to pierce the breast of an eagle with an arrow feathered by a plume plucked from his own wing.

If Cesalpino's discovery and demonstration of the course of the blood were so complete and unmistakable as his recent advocates maintain, it is remarkable that his contemporaries and immediate successors, to whom his writings must have been well known, should have remained in ignorance of the true doctrine of the circulation. Professor Scalzi, indeed, in his inaugural address, suggests that Harvey may have learnt the new doctrine of Cesalpino from his famous anatomical teacher Fabricius;(k) but, unfortunately for this suggestion, the work of Fabricius ("De Venarum Ostiolis"), which was published in 1603, a year after Harvey's departure from Padua, and rather more than thirty years after the publication of Cesalpino's chief treatise ("Quæstionum Peripateticarum libri quinque," Florent., 1571), this work affords conclusive evidence of its author's entire ignorance of the circulation of the blood through the systemic vessels.

Fabricius believed that the purpose of the valves in the veins was not to favour the passage of blood to the heart, but to prevent over-distension of the veins by the blood in its passage through the venous trunks to their branches, and also to retard the current of blood, so that time might be given for each part to take up its proper nutriment; and he states that valves are not required in the arteries, because, on account of the thickness and strength of their coats, they are not liable to be over-distended. Neither are valves required to retard the stream of blood, because in the arteries there is a perpetual flux and reflux of blood.(l) This, then, was the doctrine of the systemic circulation held and taught by one of the most eminent anatomists of Italy thirty years after the publication of Cesalpino's supposed discovery.

Professor Ceradini even admits that Fabricius had not the most remote idea of a circulation of the blood.(m) Upon this Dr. Willis pertinently asks—"If this be true, who among his contemporaries could be better informed?" If Cesalpino had given an intelligible account of the circulation through the systemic vessels, his fellow-countryman Fabricius, of all men, would have been the least likely to be ignorant of it, and his ignorance may be taken as a fair index of the knowledge of his contemporaries.

Now, in order to correctly estimate Cesalpino's claims as an original observer, and to understand some of the terms which he employs, we have to consider to what extent a knowledge of the circulation had been obtained by his predecessors.

From the time of Galen, in the second century of the Christian era, to that of Servetus, in the sixteenth century, it was supposed that the blood, passing from the vena cava into the right side of the heart, was there divided into two streams, which took different courses. While a part of the blood passed by invisible pores through the septum from the right to the left side of the heart, the other portion was sent by the pulmonary artery (vena arterialis) to nourish the lungs. But as all the blood thus sent to the lungs was not required for their nutrition, a certain portion passed into the pulmonary vein (arteria venalis) by means of a supposed anastomosis between the two vessels, and so reached the left side of the heart. The Spaniard Servetus made an advance upon Galen's physiology of the pulmonary circulation in this respect, that he maintained that the blood passes from the right to the left side of the heart, not at all by invisible pores in the septum, but entirely by free communication between the pulmonary artery (vena arterialis) and the pulmonary vein (arteria venalis), the dark blood from the right side of the heart assuming a crimson colour in its passage through the lungs.(n)

The Italian Realdus Columbus, who succeeded Vesalius as Professor of Anatomy at Padua, and who died at Rome in 1577, published his work, "De Re Anatomicâ" six years after the publication of the "Christianismi Restitutio" of Servetus.

In this book Columbus claims to have been the first to describe the passage of the blood from the right to the left side of the heart by the pulmonary vessels. It is certain that in the date of publication Servetus had anticipated him by six years; but it is possible that the writings of Servetus, which, together with their author, were burnt at the stake at the instigation of Calvin, may not have been known to Columbus. Professor Ceradini suggests (page 99)—but, so far as I can see, without adducing any evidence in support of his conjecture—that Servetus may have been a pupil of Columbus at Padua, and may there have learnt from his anatomical teacher the doctrine which he afterwards published as his own.

What was known then and taught with regard to the circulation before the publication of Cesalpino's writings was briefly this—that the blood from the vena cava enters the right side of the heart, and thence passes through the lungs to the left side, whence it is distributed by the aorta over the whole body. What we now call the pulmonary circulation, therefore, was fairly well understood. With regard to the systemic circulation, however, nothing definite was known. It was supposed that while the veins conveyed one kind of blood called *auctire* blood to the tissues, the arteries supplied them with *nutritire* blood of a more spirituous nature; that there were communications between the arteries and veins by invisible inosculations or anastomoses, as the result of which auctive blood passed into the arteries, which in their turn gave back spirituous blood to the veins. By these anastomoses Galen explained the fact that the wound of a large artery empties not only the arteries, but the veins. The movement of blood in the vessels, both arteries and veins, was supposed to be of a to-and-fro character. From the time of Aristotle to that of Cesalpino, and, as we shall presently see, by Cesalpino himself, this movement was compared to the tides of Euripus—that is, to the ebb and flow of the tide in a narrow channel. This, then, was the state

(i) "Ma queste considerazioni, se giustificano in parte la condotta di Harvey, non valgono affatto di scusa a quella de' suoi connazionali, i quali oggi ancora a dispetto della verità e della giustizia lo ritengono, o fingono ritenerlo scopritore della circulazione del sangue, forse, per non privarsi, come argutamente osservava Barzelotti, del pretesto di festeggiarne la memoria *inter pocula*" (pages 98-9).

(k) "Fu gran ventura per Guglielmo Harvey, che trovandosi dal 1598 al 1602 in Padova allo studio della medicina, potesse apprendere la dottrina novella da Fabrizio d'Acquapendente ad quale il grido di anatomico sommo chiamava scolari anche de oltralpe" (pages 18, 18).

(l) "Erat profecto necessaria ostiolorum constructio in artuumvenis, ut scilicet sanguis ubique cateuus retardaretur, quatenus cuique parteulæ alimento fruendi congruum tempus detur. Arteriis autem hæc ostiola non fuere necessaria; neque ad distensionem propter tunicæ crassitiem ac robur, neque ad sanguinem remorandum, quod sanguinis fluxus refluxusque in arteriis perpetuo fiat"—"De Venarum Ostiolis," page 2.

(m) "È notissimo del resto che Fabricio non ebbe la più lontana idea di una circulazione del sangue."—Ceradini, page 148.

(n) "Fit autem communicatio hæc non per parietem cordis medium, ut vulgo creditur. Sed magno artificio à dextro cordis ventriculo, longo per pulmones ductu, agitatur sanguis subtilis: à pulmonibus præparatur, flavus efficitur, et à vena arteriosâ in arteriam venosam transfunditur."—"Christianismi Restitutio," 1553, page 169.

of knowledge, or rather of ignorance, with regard to the movement of blood in the systemic vessels before the publication of Cesalpino's writings. We have now to inquire to what extent he succeeded in throwing light upon the subject.

With regard to the structure of the heart and its valves, Cesalpino says that it is so arranged as to allow of continuous motion from the veins to the heart, and from the heart to the arteries.(o) In these statements there was he says,(p) "the hot blood is carried from the right ventricle nothing new. In the chapter "De Pulmonis Constitutione," by the artery which Galen calls the vena arterialis into the lung, and is again conveyed to the heart by the vein proceeding from the left ventricle, which Galen calls the arteria venalis. Meanwhile in its passage the blood is tempered by the cold air inspired into the branches of the windpipe which lie near the veins and arteries, so that by a kind of circulation the blood is converted into the nature of spirit, first in the right ventricle, then in the left; therefore the vessel leading from the right side of the heart is a true artery, having a double tunic, in order that the spirits should not escape from it. The vessel entering the left side of the heart is a vein consisting of a single tunic, because it contains blood which has been already refrigerated in the lung."

Cesalpino's second reference to the circulation through the lungs occurs in his treatise ("Quæstionum Peripateticarum libri quinque," lib. v. p. 125 D, ed. 1593) in the following terms:—(q) "Thus the lung, drawing warm blood from the right ventricle of the heart through the vein which resembles an artery (pulmonary artery), and sending it by anastomosis to the arteria venalis (pulmonary vein), which enters the left ventricle of the heart, tempers it meanwhile by the cold air which is conducted into the branches of the windpipe which lie near the arteria venalis, and this not by inosculation between the bloodvessels and the air-tubes, as Galen supposes, but by contact alone. With this circulation of the blood from the right ventricle of the heart through the lungs to the left ventricle the appearances on dissection exactly correspond, for there are two vessels connected with the right ventricle and two with the left; but of the two vessels one only intromits, while the other emits, the valves being constructed with that design." He then refers to the errors of his predecessors in calling all the bloodvessels connected with the right side of the heart-veins, while those on the left side are designated arteries; and he says that the vessel on the right side which had hitherto been called vena arterialis has the structure of an artery, and pulsates in consequence of receiving blood from the heart, while the vessel on the left side, called arteria venalis, has the structure of the other veins, and does not pulsate, because it only conveys blood to the heart."(r) "All things, therefore, are admirably fashioned, for since it was necessary that the blood should be brought to the heart in order that it might become perfect nutriment—first in the right ventricle, in which a thicker blood is contained, and then in the left, which has a purer blood,—it is transmitted from the right to the left ventricle, partly through the septum, partly, for the sake of being refrigerated, through the lungs."(s) (*Note a.*)

From the preceding extracts it appears that Cesalpino's account of the pulmonary circulation is identical with that given by his predecessors, Servetus and Columbus, except that in one sentence (being apparently still under the influence of Aristotle and Galen) he speaks of the passage of blood from the right to the left side of the heart as taking place partly through the septum. Dr. Ceradini argues that, since Cesalpino refers to the permeability of the septum cordis only once in one of his works, he did this rather in deference to his admired master Aristotle, and not from a firm belief in the doctrine. But surely a disciple who quotes his master's doctrine without expressing dissent must be held to accept and agree with it. Cesalpino, being ignorant of the real function of the heart and arteries, thought that the purpose of the thick pulmonary artery was to prevent the escape of the spirits, while the thin pulmonary vein sufficed to hold the blood which, as he erroneously supposed, had been cooled by passing through the lungs.

It is a fact that the word *circulation* is here for the first time used to describe the movement of the blood from the right to the left side of the heart. Cesalpino's fellow-countrymen make much of this word, and argue as if it implied a knowledge, not only of the pulmonary, but also of the systemic circulation; but it is a noteworthy and most significant fact that this term is employed by Cesalpino only with reference to the passage of the blood through the lungs, and never in his attempt to explain the movement of the blood in the systemic vessels. This restriction of the word circulation to the pulmonary part of the circuit is *pro tanto* evidence that he was ignorant of there being a continuous passage of blood from the systemic arteries to the veins, identical with that which had been found to occur through the pulmonary vessels, and to which the term *circulation* is equally applicable. (Note *b.*)

Yet to anyone who reads Dr. Ceradini's account of Cesalpino's doctrine of the general circulation, without reference to the original publications, it would seem obvious that the Italian physiologist had completely demonstrated the perpetual passage of the blood from the aorta through the capillaries to the veins, from the veins to the right side of the heart, and thence again through the lungs to the left side of the heart; but a careful comparison of the Professor's free translation of Cesalpino's language with the original text, and a comparison of Cesalpino's confused and contradictory statements with each other, will lead any unbiassed critic to a very different conclusion.

The word *capillamenta* is occasionally used by Cesalpino, and this his modern interpreters invariably translate by the term "capillaries."(t) Dr. Ceradini in fact maintains that so complete were Cesalpino's proofs of the systemic circulation, that Malpighi's microscopical demonstration of the capillary vessels could add nothing to the certainty of his doctrine (page 295).

Professor Scalzi also in his address(u) credits Cesalpino with a complete knowledge of the capillary circulation, and laments that Harvey, having misunderstood his Italian predecessor's teaching, wandered from the track which had been so splendidly marked out by Cesalpino, and substituted for the Italian's demonstrated capillaries his own theory of "porosities in the tissues," through which the blood was supposed to pass from the arteries to the veins. (Note *c.*)

Now, surely to credit Cesalpino with having acquired a knowledge of the capillary vessels without the aid of the microscope, is to suppose him to have been endowed with superhuman sagacity. Obviously it was as impossible to form a conception of the capillary circulation until the microscope had rendered the minute vessels, visible as it was to discover Jupiter's moons or Saturn's rings before the invention of the telescope. And if we refer to the passages in which Cesalpino introduces the word *capillamenta*, we shall see that if, as is probable enough, Harvey was acquainted with his predecessor's writings, he could have derived from them no assistance in his attempt to trace the course of the blood from the arteries to the veins.

I now proceed to give some extracts having reference to

(o) "Ut continuus quidam motus fieret ex venis in cor et ex corde in arterias."—"Speculum Artis Medicæ," lib. vi. cap. xix., ed. 1670, page 473.

(p) "Fertur igitur ex corde sanguis fervidus per arteriam ex dextro ventriculo, quam Galen venam arterialem vocat, in pulmonem iterumque cordi redditur per venam ex sinistro ventriculo prodeuntem, quam Galen arteriam venalem vocat, interim in itinere contemperatur ab aere frigido inspirato in asperas arterias juxta venas et arterias, ut circulatione quadam sanguis perficiatur in naturam spiritus, prius in dextro ventriculo deinde in sinistro. Ideo vas educens è corde vera arteria est ex duplici tunica, ut spiritus non evanescant. Vas introducens vena est ex unica tunica constans, quia sanguinem jam refrigeratum continet."—"Spec. Art. Med." lib. vi. cap. ix. page 443.

(q) "Idcirco pulmo per venam arteriis similem ex dextro cordis ventriculo fervidum hauriens sanguinem, eumque per anastomosim arteriæ venali reddens, quæ in sinistrum cordis ventriculum tendit, transmisso interim aere frigido per asperæ arteriæ canales, qui juxta arteriam venalem protenduntur, non tamen osculis communicantes, ut putavit Galen, solo tactu temperat. Hinc sanguinis circulationi ex dextro cordis ventriculo per pulmones in sinistrum ejusdem ventriculum optime respondent ea quæ in dissectione apparent. Nam duo sunt vasa in dextrum ventriculum desinentia, duo etiam in sinistrum. Duorum autem unum intromittit tantum, alterum educit, membranis eo ingenio constitutis."

(r) The pulsation of the pulmonary artery was known to Galen: "Neque te fugiat vas illud quod cordi connectitur, a cava vena progerminatum, etiamtipsum quem admodum arterias pulsare"—Galen, "De Utilitate Respirationis," c. 4. The probable reason why the ancient anatomists called the pulmonary artery a vein, and the vein an artery, is that the former is usually found more or less distended with blood after death, while the latter, being often found empty, was believed to contain only air.

(s) "Partim per medium septum partim per medios pulmones refrigerationis gratia ex dextro in sinistrum transmittitur."—"Quæst. Per., p. 125.

(t) "Cesalpino aveva detto che il sangue porta d'apprima l'alimento nutritivo alle parti, poi l'alimento aumentivo al cuore dopo essere passato dalle arterie nelle vene pei capillari sparsi in tutti gli organi."—Ceradini, page 177.

(u) "Egli dunque conobbe la circolazione capillare che doveva poi farsi più solennemente manifesta da Marcello Malpighi, altro genio d'Italia" page 22.

Cesalpino's use of the word *capillamenta*. He says:—"The vena cava and the aorta, after entering all the viscera except the heart, pass beyond them, or if any come to an end, they are resolved into *capillamenta* (hairlike filaments),(v) and do not pour their blood into a cavity, for nowhere except in the heart is the blood contained in a cavity out of a vein." He goes on to say that "the heart is the origin, not only of all the bloodvessels, but also of the nerves, the heart being the centre of the emotions, which pass thence to the external parts, whilst sensations pass from the external parts to the heart."(x)

Cesalpino confirms Aristotle's doctrine that the main function of the brain is to cool the blood contained within it. "For this purpose," he says, "not a few and large, but many small veins from the aorta and the cava are distributed to the brain, which is supplied by blood, not gross and thick, but thin and pure."(y) The brain then is compared to the condensing apparatus of a spirit still;(z) "so when the thinnest part of the hot blood of the heart is sublimated, if there were no refrigerating place, the best part of the blood would vanish into the air, and not perform its admirable natural functions. Therefore, as it is the nature of heat to ascend, nature has for the best of reasons placed the cold and moist brain above, and those who have most heat and blood, as man for example, have most brain. But the venules scattered through the brain, if they ceased there and were not carried on into the organs of sense, would be useless, for how could they exhaust the pure and tempered blood?"(a)

"It is(a) therefore necessary that the venules should be continued and pass out from the brain to the organs of sense; but nothing is seen to pass out of the brain but the nerves; the nerves, therefore, must be these numerous venules, collected, not into one common canal, but into a body composed of many and most minute canals. Therefore, a nerve is divisible lengthways, for the venules terminate in straight fibres constituting the nerves." This, Cesalpino says, is Aristotle's doctrine, and he asks: "What can be more clear than this dictum? for a nerve is nothing more than the extremities of the aorta—some taking the nature of nerves in the head, that is, in the brain; others about the lower parts, that is, in the limbs and joints of the whole body."(b) . . . . "It is therefore the opinion of Aristotle that from the branches of the aorta going to the head the nerves of the brain arise. Those passages which Aristotle describes going from the veins about the brain to the eyes, what are they but the nerves of vision? But it is unwise to doubt that there are passages within them, because a large canal is not visible. For as we know that a hair is perforated, although its canal is not visible on account of its minuteness, so by other signs we may perceive the nerves to be tubular, although their canals are not visible."

Again,(c) the bloodvessels emerge from the skull by certain foramina passing on to the organs of sense, conveying the spirit, and, as it were, the flower of the blood, rather than actual blood itself."(d) . . . . . "Since the nerves the more they are lengthened the colder they are, because they are more distant from the heart, it was necessary that they should be connected with the arteries and the veins, in order that they might be warmed by their heat; for, a communication being made, there is effected a tempering of the tissues suitable for sensation. Lastly,(e) if the spirits are conveyed through the nerves for the purpose of sensation, it does not follow that the sentient part is of a sanguineous nature, for the nerves do not convey blood."

It is evident from these passages, to which others, consistently expressing the same doctrine, might have been added, that Cesalpino's *capillamenta*, which his modern Italian commentators, Professors Ceradini and Scalzi, convert into capillary bloodvessels, were the supposed filamentous terminations of arteries and veins in nerves; and that through the tubular nerves the spirituous part of the blood was supposed to pass, and thus to confer a sentient power upon the nerves. But in no single passage of Cesalpino's works is there to be found any mention of the *capillamenta* as channels by which the blood passes from the arteries to the veins; and it is particularly stated in a passage which I have just now quoted, that the nerves which are supposed to intervene between the capillamentous termination of the arteries and the veins do not convey blood. (Note *d.*)

In contrast with these capillamentous fictions of Cesalpino, I would direct attention for a moment to Harvey's minute dissections of the bloodvessels and the nerves of the human body, which are preserved in the glass cases on the opposite wall of our library. Those interesting memorials of Harvey's industry had long been carefully kept at Burley-on-the-Hill, the seat of the Earls of Winchelsea, one of whose ancestors, the Lord Chancellor Nottingham, had married a niece of Harvey. They were presented to the College in 1823 by the Earl of Winchelsea, who expressed a hope that those specimens of Harvey's scientific research would be deemed worthy of their acceptance.(f) These precious memorials of the great anatomist afford an interesting illustration of a passage in the dedication of the treatise, "De Motu Cordis et Sanguinis" Coll. Ed., page 7; Dr. Willis, page 7). Harvey says: "I profess both to learn and to teach anatomy, not from books, but from dissections; not from the positions of philosophers, but from the fabric of nature." It is probable enough that when he penned this sentence he had in his mind the author of the "Quæstiones Peripateticæ," and his vain attempts to reconcile Aristotle's philosophy with the facts of anatomy and the marvellous phenomena of living beings

Evidence of Cesalpino's entire ignorance of a system of capillary bloodvessels is afforded by the fact that when he refers to the communication between the arteries and the veins, he always speaks of this as occurring by inosculations, which the Greeks call anastomosis; thus he says,(g) "there is a constant movement from the heart through the arteries to all parts of the body, because there is a constant generation of spirit, which, by its expansion, is ready to be diffused into all parts. At the same time it carries nutritive aliment, and elicits from the veins auctive aliment, by means of the inosculations which the Greeks call anastomosis; but the spirits, at length escaping into the ambient air, the bodily part of the aliment remains, being coagulated partly by

(v) "Vena cava et arteria aorta reliqua viscera excepto corde, postquam adierint transmeant ulterius, aut si quæ desinunt in capillamenta resolvuntur."—"Quæst. Per.," lib. v. page 116 *A*.

(x) "Cor principium omnium venarum (arteriæ enim sub nomine venarum intelliguntur Aristoteli) ex dictis patet. Sed et nervorum quoque ortum ab eodem duci, hinc manifestum fiet. . . . Sensus enim incipiunt ab exterioribus organis et desinunt in corde" (page 116 *B*).

(y) "Propter hoc autem circa cerebrum non paucæ ac magnæ, sed tenues ac frequentes venæ ex cava et aorta spargunur: neque sanguis copiosus et crassus, sed tenuis sincerusque tendit eodem."—"Quæst. Per.," page 120 *A*.

(z) "Sic quoque cum ex sanguine in corde fervente tenuissima pars sublimetur, nisi fuisset locus refrigerationis, optima pars sanguinis in auram evanuisset, nec admiranda naturæ opera perfecisset. Optima igitur ratione cerebri substantia frigida et humida in superiori loco a natura condita est, quia caloris natura est sursum ascendere et quæ plurimum habent caloris ac sanguinis; iis plurimum quoque cerebri datum est, ut homini. Venulæ autem in cerebrum dispersæ, si inibi desinerent, nec ad organa sensuum ferrentur inutiles fuissent, quomodo enim hæc sanguinem sincerum et temperatum haurirent" (page 120 *C*).

(a) "Necesse igitur est continuas esse venulas è cerebro iterum egredientes ad sensuum instrumenta. At nullum aliud corpus è cerebro egredi videmus præter nervos: nervi igitur venulæ illæ fuerint multæ in unum coeuntes non communem canalem, sed corpus ex pluribus canalibus ac tenuissimis compositum: id circo fissilis est nervus secundum longitudinem: nam venulæ in fibras rectas desinunt nervos constituentes" (page 120 *D*).

(b) "Quid potest hoc dicto clarius esse? nihil enim aliud est nervus quam extrema aortæ, alia quidem in capite, id est in cerebro naturam nervi accipientia, alia autem circa imas partes, id est circa crura et articulos totius corporis . . . . Sententia igitur est Aristotelis ex aorta ad caput tendente oriri nervos cerebri . . . . Meatus igitur quos scribit Aristoteles ad oculos pervenire ex venulis quæ sunt circa cerebrum, quid aliud sunt quam nervi appellati visorii? Stultum autem est credere non esse meatus, si quis amplum quemdam canalem in ipsis non percipiat. Ut enim capillum perforatum esse scimus, non tamen visui ob parvitatem meatus apparet, sic nervos ex aliis signis fistulosos esse cognoscimus, visui tamen non sunt manifesti meatus" (page 120 *E*, *F*).

(c) "Hæc (vascula) iterum ex calvaria multa simul per foramina quædam egressa, ad instrumenta sensuum feruntur, spiritum ac veluti florem sanguinis potius quam sanguinem ferentia" (page 120 *F*).

(d) "Præterea cum nervi quanto magis protrahuntur, eo frigidiores sint, quia distantiores a corde fiunt, propter hoc quoque necesse fuit jungi cum arteriis ac venis ut earum calore foverentur; sic enim communicatione facta temperies in carne fit sensui commoda" (page 131 *F*).

(e) "Si spiritus per nervos deferuntur ad sensus perficiendos, non erit necesse sanguineum esse quod sensit; nervi enim sanguinem non ferunt."—"Quæst. Per.," [illegible] 130 *F*.

(f) See "The Roll of the Royal College of Physicians," by William Munk, M.D., vol. [illegible] page 144

(g) "Motus igitur continuus a corde in omnes corporis pares agitur quia continua est spiritus generatio qui sua amplificatione diffundi celerrime in omnes partes aptus est, simul autem alimentum nutritivum fert et auctivum ex venis elicit per osculorum communionem quam Græci anastomosim vocant. [illegible] vero spiritu in aeram ambientem diffllante alimenti corpulentia remanet, partim frigore partim calore coagulata. Ad distributionem autem spiritus et sanguinis distributionem in partes, vasa residere oportet, donec novus spiritus iterum repleat ac distendat."—"Quæst. Per.," page 123 *E*.

cold and partly by heat. After the diffusion of the spirit and the distribution of the blood, the vessels remain at rest until a fresh supply of the spirit again fills and distends them." (Note *e.*)

This passage, while it is quite in accordance with the Galenic doctrine of the veins and arteries containing two kinds of blood, auctive and nutritive, and communicating with each other by anastomosis, is quite inconsistent with the idea of a capillary system of vessels. Some blood, with its auctive nutriment, is supposed to be drawn from the veins into the arteries, and that which is carried beyond the anastomosis is said to be partly evaporated and partly rendered solid: but no reference is made to the passage of any part of the blood from the terminal arteries into the veins.

It will be seen, too, that the diffusion of the blood through the arteries was supposed to be due, not to the propulsive power of the heart, as Harvey was the first to demonstrate, but to the constant generation and expansion of the spirits.

Again, a reference to Cesalpino's description of the supposed cooling influence of the air upon the blood affords collateral evidence, if such were needed, that he had no conception of thin-walled capillary bloodvessels, through which the air and the blood exert a mutual influence upon each other. Thus, in describing the relation of the blood-vessels to the air-tubes in the lungs, he remarks that,(h) "with good reason the branches of the wind-pipe are placed by the side of the pulmonary vein, not by the pulmonary artery;" and he gives the following reason for this:—"For the vein, having a more simple texture and consisting of only one thin tunic, can be more readily refrigerated (*i.e.* by contact with the air), and besides, the dilatation and contraction of the air-tubes would have interfered with the pulsation of the artery if they had been placed near together."

In this passage we have conclusive evidence that the author had no knowledge of minute capillaries through which the blood is exposed to the influence of the air, but on the contrary he supposed this to occur in thin-walled veins, of such a size that, if they were arteries, their pulsation would be impeded by the supposed dilatation and contraction of the contiguous air-tubes.

In another passage, the theory that the veins are cooled by being placed near the air-tubes again finds expression. After having shown, as he states, that the brain is a blood refrigerator, he goes on to say: (i) "For this cause inspiration of air occurs through the nostrils, which terminate near the brain, not only on account of the sense of smell, but also in order that the veins ascending from the neck to the brain should be cooled; for the veins passing towards the brain are placed near the wind-pipe." Here we have expressed not only the theory of blood-cooling by the contact of veins with the trachea, but the veins are spoken of as "ascending through the neck to the brain," a statement which would never have been made by one who knew that the course of the blood in the veins of the neck is perpetually downwards.

Dr. Ceradini repeatedly asserts that Cesalpino proved and demonstrated the systemic circulation by his observation of the effect of *obstructing the flow of blood through the veins.* And I propose now to examine Cesalpino's statements in connexion with Ceradini's comments and conclusions. In the treatise "Quæstiones Medicæ," page 234, Cesalpino says(k): "It is worthy of inquiry why, when a ligature is applied, the veins swell beyond and not on this side of the obstruction, which those who practise venesection know by experience; but the opposite ought to occur if the motion of the blood and spirit is from the viscera over the entire body; for the passage outward being blocked, a swelling of the veins should occur on this side of the ligature." Then, after quoting Aristotle's explanation, which is quite unintelligible, he gives his own: "In explanation of this it is to be observed that the orifices of the heart are so arranged by nature that there is an entrance from the vena cava into the right ventricle, whence there is an open passage into the lungs, and from the lungs there is an entrance into the left ventricle, and thence into the aorta, valves being placed at the orifice of the vessels to prevent reflux. There is thus a perpetual movement from the vena cava through the heart and lungs to the aorta, as we have explained in our Peripatetic Questions." Up to this point Cesalpino's description is clear and correct; but it goes not beyond the knowledge of his contemporaries. After this, confusion begins to be apparent,(l) "As in waking hours the motion of the native heat is outwards, viz., to the organs of sense, but during sleep it is inwards towards the heart, it is to be supposed that during wakefulness much spirit and blood are carried to the arteries, whence there is a passage to the nerves; but during sleep the same heat returns to the heart by the veins, not by the arteries; for the only entrance to the heart is by the vena cava, not by the aorta. The proof of this is to be found in the pulse, which in those who are awake is large, strong, quick, and with a certain vibration,(m) but during sleep it is small, feeble, and slow; for during sleep less native heat goes to the arteries, while it passes into them more forcibly when we are awake. But in the veins the reverse occurs, for they are fuller during sleep and smaller during wakefulness, as may be seen in those of the hand; for during sleep the native heat passes from the arteries to the veins by inosculations, which are called anastomoses, and then to the heart; but as the outward flow of the blood to the superior parts, and its return to the inferior parts like Euripus, is manifest during sleep and wakefulness, so is this kind of motion in whatever part of the body a ligature is applied, or when in any other way the veins are obstructed, not obscure.(n) For as, when the passage is closed, rivulets swell up where they are accustomed to flow, so perhaps does the blood at the time return to its source, lest being cut off it should be extinguished." (Note *f.*)

Cesalpino's statements and arguments may be summed up thus:—During wakefulness the blood passes from the aorta to the nerves, as before explained in connexion with the word *capillamenta*, while during sleep it passes from the arteries by the before-mentioned anastomoses, not by capillaries, through the veins to the heart. According to this view the swelling of the veins on the distal side of the ligature should occur only during sleep, and the only explanation of its occurrence at other times suggested is that perhaps when a vein is obstructed "the blood returns to its source, lest, being cut off, it should be extinguished."(o)

Now, surely, if Cesalpino had known that there is a continual flow of blood from the branches of the aorta to the veins, and so back to the heart, he would in a sentence have given the simple and obvious explanation of the fact constantly observed, as he says, by those who practise venesection; but for want of this knowledge he suggests an explanation of the phenomenon which is partly metaphysical and wholly unintelligible.

Dr. Ceradini admits that Cesalpino's expression ("exundatio ad superiora retrocessus ad inferiora") "outward flow to the superior parts, and return to the inferior parts like Euripus," is a comparison borrowed from Aristotle; and therefore it may be assumed not to contain any new doctrine. But he quotes a sentence from Harvey with an attempt to show that it is identical with Cesalpino's statement. The passage occurs in a letter to Dr. Hofmann (Coll. Ed., page 635; Dr. Willis, page 595), and is as follows:—"I do

(h) "Ex merito huic vasi (*i.e.* venæ), protendantur asperiæ arteriæ canales non alteri educenti (*i.e.* arteriæ,: nam hoc simplicius existens ex unica eaque tenui tunica constitutura, refrigerari facilius poterat, præterea pulsationi alterius vasis impedimento fuisset asperiæ arteriæ dilatatio et constrictio si juxta essent posita."—"Quæst. Per.," page 125 *F.*

(i) "Ob hanc vero causam fit aeris inspiratio per nares juxta cerebrum desinentes, non solum olfactus gratia, sed etiam ut venæ per collum ascendentes ad cerebrum undique refrigerentur, protenduntur enim juxta asperam arteriæ venæ cerebrum petentes."—"Quæst. Per.," page 126 *A.*

(k) "Sed illud speculatione dignum videtur propter quid ex vinculo intumescunt venæ ultra locum apprehensum, non citra; quod experimento sciant qui venam secant: vinculum enim adhibent citra locum sectionis non ultra; quia venæ tument ultra vinculum non citra. Debuisset autem opposito modo contingere, si motus sanguinis et spiritus a visceribus fit in totum corpus: intercepto enim meatu non ultra datur progressus: tumor igitur venarum citra vinculum debuisset fieri."—"Quæst. Med.," page 234 *A.*

(l "Cum autem in vigilia motus caloris nativi fiat extra, scilicet ad sensoria: in somno autem intra, scilicet ad cor; putandum est in vigilia multum spiritus et sanguinis ferri ad arterias, inde enim in nervos est iter. In somno autem eumdem calorem per venas reverti ad cor, non per arterias; ingressus enim naturalis per venam cavam datur in cor non per arteriam. Indicis sunt pulsus, etc."—"Quæst. Med.," page 234 *E.*

(m) This description of the pulse, as Ceradini admits (page 272, note), is literally copied from Galen.

(n) "Cum enim tollitur permeatio intumescunt rivuli qua parte fluere solent, forte recurrit eo tempore sanguis ad principium, ne intercisus extinguatur." page 234 *C.*

(o) If Cesalpino had been asked what became of the blood which during the waking state was continually being sent through the arteries, since during sleep only did he suppose it to return by the veins, he would probably have replied, in the terms of a previous extract, that while the spirituous part escaped into the air, the grosser part was coagulated by cold and heat.

indeed assert that the blood is incessantly moving out from the heart by the arteries to the general system, and returning from this by the veins back to the heart, and with such a flux and reflux in such mass and quantity, that it must necessarily move in some way in a circuit."

Now, it is strange that Dr. Ceradini does not see the essential difference between these two passages.(p) Obviously the comparison with Euripus implies a flux and reflux through the same and not through different channels, while Harvey, in a few words, gives a clear description of the systemic circulation—namely, an outflow from the heart by the arteries, and a reflux by the veins, and in such quantity that it must necessarily move in a circuit. If Cesalpino had written this sentence, he might indeed have been credited with a knowledge of the systemic circulation; but neither that nor anything like it is to be found in any part of his writings.

The passages in Cesalpino's works which show most conclusively that he could have had no idea of a continuous flow of blood from the systemic arteries to the veins, on its way back to the heart, are those which describe, or evidently imply, a passage of the blood *from the trunk to the branches* of the veins. Thus in the "Ars Medica" (page 488, ed. 1670) the following statement occurs:—"But the vena cava distributes branches throughout the whole body, in order that, together with the arteries, they may nourish every part. From the same vena cava some large branches, called emulgent veins, go to the kidney, by which (veins) the superfluous water of the blood is excreted and carried by the ureters to the bladder.(q)

This passage requires no comment and admits but one interpretation. Neither does the following:—"As rivulets draw water from a fountain, so do the veins and arteries draw blood from the heart."(r) There is a parallel passage in the "Ars Medica" (page 1): "The fountain of blood in the heart being distributed into four vessels—viz., the vena cava, the aorta, the pulmonary vein, and artery—irrigates the whole body like the four rivers proceeding from Paradise."(s) Curiously enough, Dr. Ceradini quotes this passage in illustration of Cesalpino's clear view of the circulation (page 294).

There is another remarkable passage in which it is clearly assumed that the blood under certain conditions passes by the veins of the neck upwards to the brain. In opposition to Galen, who taught that the nerves and nervous influence proceed from the brain and spinal cord, and in support of Aristotle's doctrine that the *heart* is the centre and source of all nervous influence, Cesalpino says no one denies the fact mentioned by Galen, that division or ligature of the spinal cord, or of a nerve, paralyses the parts below. But he goes on to argue that the same result follows the obstruction of all the vessels of the neck, because then the influence of the heart can no longer pass to the nerves. "But it is not sufficient that the *arteries* of the neck alone be closed, which Galen sometimes found might be done without harm, for then a power is transmitted from the heart by the *veins* to the same parts, since there are inosculations between the veins and the arteries, not only in the heart, but along their whole course."(t)

In the preceding passages we have conclusive evidence of Cesalpino's doctrine that in certain veins, and at certain times, the blood flows from the trunks to the branches, and Dr. Ceradini(u) himself admits Cesalpino's belief that during the waking condition of animals there is a reflux from the *aorta* into the left ventricle of the heart, in consequence of the difficulty with which the blood escapes from the terminal branches of the aorta to the nerves.

Yet so determined is Dr. Ceradini to maintain his fellow-countryman in the position of the discoverer of the circulation that this theory of a reverse current from the aorta to the heart, which, if it occurred as a fact, would be instantaneously fatal, and which to an impartial critic affords conclusive proof of Cesalpino's ignorance of that which he is declared to have discovered, is held by his advocate not to be of the slightest consequence.(v) (*Note g.*)

The most curious illustration of the manner in which Cesalpino's compatriots endeavour to obtain for him the credit of originality and completeness with regard to the circulation is afforded by a lecture by Dr. Del-Vita,(x) which is made up of extracts from all Cesalpino's writings, the original Latin and the Italian translation being placed in parallel columns; and the quotations from various treatises are so pieced together as to read like a clear and continuous description of the circulation as we now understand it. The source of each word and sentence is given, and although the lecture occupies less than three pages of large type, so numerous are the references that all the letters of the alphabet are insufficient to indicate their source. The following brief paragraph is an illustration of the method adopted by this author:—"The blood, therefore, is carried from the right ventricle of the heart by the pulmonary artery, and again returned to the heart by the pulmonary vein, which proceeds from the left ventricle; from the heart it passes into the arteries; from the arteries to the veins; from the veins to the heart; so there is a perpetual movement from the vena cava through the heart and lungs to the aorta, and by the arteries into the whole body." This description of the circulation, which occupies ten short lines, is not taken from any one part of Cesalpino's writings, but is extracted, as the letters of reference show, from six different parts of three separate treatises, namely: "Quæstiones Peripateticæ," "Quæstiones Medicæ," and the work "De Plantis." If Cesalpino had anywhere described the course of the blood, as it was first revealed by Harvey, there would have been no need to resort to such a patchwork proceeding as this, which does no credit to its author, Dr. Del-Vita, or to the orator, Dr. Maggiorani, who refers to the lecture with approval. It is manifest that by stringing together isolated words and sentences the doctrine of the circulation might be extracted from the Pentateuch or from any other ancient writings.

At the risk, and I almost fear at the cost, of being tedious, I have made these numerous quotations from Cesalpino's various writings, in order to prove by his *ipsissima verba* what was the amount of his knowledge with regard to the systemic circulation.

I think that I have shown conclusively that great and various as were his acquirements in different departments of natural science—more especially in botany, in which science he had the merit of great originality—as regards the physiology of the circulation his information was not in advance of that possessed by his immediate predecessors and contemporaries. It will have been seen that Professor Ceradini relies mainly upon three distinct pieces of evidence to establish his fellow-countryman's claim to be regarded as the discoverer of the circulation: (1) His use of the word "circulation"; (2) his employment of the word "capillamenta"; and (3) his observation of the effect of obstructing the current of blood in the veins. But a critical examination of each of these points has afforded evidence of Cesalpino's ignorance rather than of his knowledge of the circulation. (1) The term "circulation," being applied only to the passage of the blood through the lungs, implies a want of knowledge of the systemic circulation; (2) the word "capillamenta," which is erroneously translated "capillaries," is used only to designate an imaginary transition from arteries and veins into nerves, the nerves and the *capillamenta* being declared to be impervious to blood; (3) and lastly, no satisfactory explanation is given of the fact, which those who practise venesection had observed for centuries, namely, that an obstructed vein swells on the distal side of the ligature or other obstructing cause.

(p) In the Latin edition of Harvey, which Dr. Ceradini quotes, the words are: "Eo fluxu et refluxu, *ei quantitate et copia* ut in circuitu quodam modo moveri sit necesse." In quoting this passage the four significant words here printed in italics are omitted. Was this in order to render Harvey's statement more like Cesalpino's than it would otherwise appear to be?

(q) "Vena autem cava ramos in totum corpus dispergit ut simul cum arteriis universas partes nutriant. Ab eadem cava rami quidem insignes ad renes tendunt, venæ emulgentes vocatæ, per quas superfluus sanguinis aquositas excernitur, ut per vasa urinaria in vesicam feratur." The name "vena emulgentes" was doubtless suggested by the theory that those veins drain out the excess of water from the blood.

(r) "Ut igitur rivuli ex fonte aquam hauriunt, sic venæ et arteriæ ex corde."—"Quæst. Per." page 116 *d*.

(s) "Fons sanguinis in corde distributus in quatuor venas, scilicet cavam, aortam, arteriam venalem et venam arterialem, totum corpus irrigat instar quatuor fluminum ex Paradiso prodeuntium."

(t) "Non satis it autem arterias solum, ut Galenus aliquando expertus est sine noxa in collo constringere, nam ex venis in eadem loca transfertur virtus a corde, cum osculorum sit communio non solum in corde sed etiam per totum venarum atque arteriarum ductum."—"Quæst. Per." page 121 *D*.

(u) "E vero del resto che negli animali vigili Cesalpino ammise un rigurgito dall' aorta verso il cuore" (page 273).

(v) "Ciò non pregiudica minimamente l'essenzialità della dottrina stessa della circolazione" (page 269).

(x) "Della Circolazione del Sangue Scoperta da Andrea Cesalpino. Lezione Anatomico-Fisiologica da Antonio Del-Vita di Arezzo," 1876.

To turn from Cesalpino's doubtful and contradictory utterances, and his peripatetic fancies with regard to the circulation, to Harvey's clear statements and exact reasoning, is like coming from a dark and stifling cave into fresh air and bright sunshine.

I propose, in conclusion, to give one extract from Harvey's treatise, "On the Motion of the Heart and Blood," which affords a good example of his style, and which is especially interesting from its containing in a few sentences an illustration of the process of observation and reasoning which led up to his great discovery of the systemic circulation:(y)—

"When I surveyed my mass of evidence, whether derived from vivisections and my various reflections on them, or from the ventricles of the heart and the vessels that enter into and issue from them, the symmetry and size of these conduits—for nature, doing nothing in vain, would never have given them so large a relative size without a purpose—or from the arrangement and intimate structure of the valves in particular, and of the other parts of the heart in general, with many things besides, I frequently and seriously bethought me, and long revolved in my mind, what might be the quantity of blood which was transmitted, in how short a time its passage might be effected, and the like; and not finding it possible that this could be supplied by the juices of the ingested aliment, without the veins on the one hand becoming drained, and the arteries on the other getting ruptured through the excessive charge of blood, unless the blood should somehow find its way from the arteries into the veins, and so return to the right side of the heart; I began to think whether there might not be A MOTION AS IT WERE IN A CIRCLE. Now this I afterwards found to be true; and I finally saw that the blood, forced by the action of the left ventricle into the arteries, was distributed to the body at large and its several parts, in the same manner as it is sent through the lungs, impelled by the right ventricle into the pulmonary artery; and that it then passed through the veins and along the vena cava, and so round to the left ventricle in the manner already indicated, which motion we may be allowed to call circular."—(Coll. Ed., page 48; Dr. Willis, pages 45-6.)

It was the recognition and proof, by numerous observations and experiments, of the incessant propulsion of the blood by the contractions of the left ventricle of the heart through the systemic arteries into the veins, and so back to the right side of the heart, that constituted Harvey's grand discovery of the greater or systemic circulation.

Harvey, as we have seen, obtained his anatomical knowledge at Padua under the famous Fabricius, of whom he speaks with gratitude and reverence (Coll. Ed., page 65; Dr. Willis's trans., page 62) as "the celebrated Hieronymus Fabricius of Aequapendente, a most skilful anatomist and venerable old man." While, therefore, we cannot concede to Cesalpino the honour of having discovered the circulation of the blood, a distinction which he himself would probably never have thought of claiming, we willingly express our gratitude to Italy for having given our celebrated countryman the anatomical training without which he could not have made his great discovery—a discovery which, throughout all ages, and by all civilised nations, will be looked upon as the foundation of modern physiology, and therefore of scientific medicine.

NOTES.

NOTE *a*.

Harvey demonstrated the passage of blood through the lungs, and the impermeability of the septum cordis, by an experiment which he thus describes in one of his letters to Schlegel:—

"Having tied the pulmonary artery, the pulmonary veins, and the aorta in the body of a man who had been hanged, and then opened the left ventricle of the heart, we passed a tube through the vena cava into the right ventricle of the heart, and having at the same time attached an ox's bladder to the tube, we filled it nearly full of warm water, and forcibly injected the fluid into the heart, so that a greater part of a pound of fluid was injected into the right auricle and ventricle. The result was that the right ventricle and auricle were enormously distended, but not a drop of water or of blood made its escape through the orifice in the left ventricle. The ligatures having been undone, the same tube was passed into the pulmonary artery, and a tight ligature having been put round it to prevent any reflux into the right ventricle, the water in the bladder was now pushed towards the lungs, upon which a torrent of the fluid, mixed with a quantity of blood, immediately gushed forth from the perforation in the left ventricle, so that a quantity of water, equal to that which was passed from the bladder into the lungs at each effort, instantly escaped by the perforation mentioned."—Dr. Willis's trans., (a) pages 597; Coll. Ed., 613, 614.

NOTE *b*.

Dr. Ceradini endeavours to prove that Cesalpino's use of the word "circulation" implied his recognition of the systemic as well as of the pulmonary circulation by first quoting Aristotle's definition of the word—"Conversio est motus qui fit ex sese in idem" (Circulation is motion from itself into itself), 'motus autem per rectum qui ab sese in aliud" (but straight motion is that from itself into another).(b)

And then he quotes a metaphysical discussion of Cesalpino's, having no reference to the movement of the blood, but in which the celestial circulation is compared with the Divine intelligence—"Circulatio autem tanquam fine carens infinito tempore agitur" (The celestial circulation, as if without end, goes on perpetually). And again, "Quatenus autem continua motione ab eodem in idem transit (idem enim est circuli principium, medium et finis) maxime assimilatur intellectioni quæ est sui ipsius." Since by a perpetual motion there is a passage from the same to the same (for the beginning, the middle, and the end of a circle is the same), there is the greatest resemblance to the (Divine) intelligence, which is self-originating.

Dr. Ceradini maintains that Cesalpino having thus accepted Aristotle's definition of a circular movement, could never have intended his use of the word to be limited to the passage of blood from the right to the left side of the heart through the lungs, but he must have meant to express the idea of a general circulation throughout the system.

It will be seen, however, that Cesalpino's views of the systemic circulation are utterly inconsistent with his modern interpreter's argument.

NOTE *c*.

It is manifest that without the aid of the microscope the mode in which the blood passes from the arteries to the veins could only be a subject for speculation. Harvey, in his original treatise, speaks of "pores in the flesh" (*porositates carnis*), through which he supposed the blood to pass (see Coll. Ed., page 69; Dr. Willis, page 68); but in his letter to Schlegel (Coll. Ed., page 627; Dr. Willis's trans., page 600), after expressing his opinion that the passage of the blood from the extremities of the arteries into those of the veins could not be effected without some "admirable artifice," suggests that the minute arteries may gradually pass into the coats of the accompanying veins, and "that the same thing took place here as we observe in the conjunction between the ureters and the bladder, and of the biliary duct with the duodenum." Malpighi was the first who, with the aid of lenses, had the delight of seeing the blood actually circulating through the capillaries in the lung and mesentery of the living frog. (Marcelli Malpighi, "Opera," Lond., 1687, page 141-2; and "Opera Postuma," Amsterdam, 1700, page 122.) Malpighi speaks of the appearances as beyond the power of his pen to describe ("qui calami subterfugiunt descriptionem"), and we can imagine with what delight Harvey would have witnessed the circulation in the magnified web of a frog's foot.

NOTE *d*.

Dr. Ceradini (page 286) refers to an observation of Hippocrates ("De Natura Hominis," sec. iii., page 6), that when an artery is wounded the blood which first flows is of a brighter red colour than the dark blood which subsequently escapes; also to Galen's statement that a wound of an artery empties not only the arteries but the veins—the result, as Galen supposed, of the anastomosis between the arteries and the veins throughout the body.

(y) M. Flourens, in his "Histoire de la Découverte de la Circulation du Sang," 1854, page 90, says of Harvey's treatise:—"Le livre d'Harvey est un chef d'œuvre. Ce petit livre de cent pages est le plus beau livre de physiologie." For his favourable judgment of Harvey, however, the author is severely taken to task by Dr. Ceradini, pages 2 6-7.

(a) The references to Dr. Willis's translation are to the Sydenham Society's edition of the works of Harvey, translated by Robert Willis, M.D., 1847.

(b Ceradini, page 253. Cesalpino, "Quæst. Per.," page 33 A.

Reference is also made to Cesalpino's statement ("Quæst. Medicorum," page 212c), that "the veins are so connected with the arteries by little mouths, that when a vein is wounded dark venous blood first escapes, then succeeds lighter coloured arterial blood" ("Venas cum arteriis adeo copulari oseulis, ut vena secta primum exeat sanguis venalis nigrior, deinde succedat arterialis flavior"). Dr. Ceradini remarks that this observation of Cesalpino, together with that of the veins swelling beyond a ligature, affords proof of the circulation as complete as it is possible to furnish.

What the quotation really appears to prove is that Cesalpino, in common with Galen, believed that the veins were everywhere connected with the arteries by inoseulations; and as the observations of Hippocrates and Galen seemed to prove the passage of blood from veins to arteries, his own doubtful observation on the effect of venesection appeared to him to prove the passage from arteries to veins, not, be it observed, by capillaries, but by inoseulations.

Harvey was the first to prove the absence of the supposed anastomoses between the veins and the arteries by an experiment which he thus describes in his "Anatomical Disquisition," addressed to John Riolan:(c)—

"Having laid open the thorax of an animal, and tied the vena cava near the heart, so that nothing shall pass from that vessel into its cavities, and immediately afterwards having divided the carotid arteries on both sides, the jugular veins being left untouched, if the arteries be now perceived to become empty, but not the veins, I think it will be manifest that the blood does nowhere pass from the veins into the arteries, except through the ventricles of the heart. Were it not so, as observed by Galen, we should see the veins as well as the arteries emptied in a very short time by the efflux from their corresponding arteries.

Note *e*.

Professor Ceradini maintains that Cesalpino meant by *auctive* blood in this passage, blood which had passed through the organs and is returning towards the heart to augment the blood which is there being constantly fabricated, and he accuses Harvey's biographer, in the College Edition of his works (page xx.), of having with bad faith inverted the sense of the passage (pages 244-5). But it clearly admits of no other interpretation. For, in accordance with Aristotle's doctrine, Cesalpino believed that the veins contained the auctive blood, while the nutrient blood is in the arteries ("Quæst. Per.," 117 *E*), it is evident that the arteries could "elicit" auctive blood from the veins through the anastomoses, only by a current from the veins into the arteries. Cesalpino, in his entire ignorance of the hydraulics of the circulation, could not know that if there were such anastomoses as he supposed between the veins and the arteries, the current of blood must of necessity, in consequence of the greater pressure in the arteries, set from them to the veins—as in a case of aneurism by anastomosis.

Note *f*.

Dr. Ceradini refers to Cesalpino's statement that *all* the veins swell when obstructed, as conclusive proof that he had actually seen the effect of obstructing all the veins either while witnessing operations on the human body or as a result of the vivisection of animals, which he assumes that he must have practised by the necessary aid of artificial respiration which Vesalius may have taught him to practise (page 265). Thus, while almost ignoring Harvey's numerous experiments, and asserting that the presence of valves in the veins was the only evidence adduced by him in proof of the systemic circulation, he gives Cesalpino the credit of having performed experiments of which no mention whatever is made in that author's writings. In fact, Cesalpino mentions no experiments or observations of his own, but refers only to a fact known, as he says, by those who practise venesection.

Note *g*.

It is not without interest to contrast Dr. Ceradini's severe and sometimes unjust and erroneous criticism of Harvey with his very lenient judgment of Cesalpino's errors.

Thus we have seen that Cesalpino's admission of a reflux of blood from the aorta to the heart during the state of wakefulness is looked upon as a pardonable error; but, on the other hand, the slight inaccuracy implied in Harvey's statement that the arterial pulse is felt simultaneously over the whole body is severely criticised (page 185).

(c) Coll. Edition, page 106. Dr. Willis's translation, page 101.

Again, while he censures Harvey for neglecting to mention Cesalpino's name and writings, the latter's omission to quote his fellow-countryman Colombo in reference to the pulmonary circulation and the impermeability of the septum, is excused, amongst other reasons for this, that "Colombo's zeal, and the energy with which he maintained the impermeability of the septum cordis, without furnishing any new anatomical or physiological proof, appeared to Cesalpino to be rather comical than otherwise" (page 256-7). It does not appear to have occurred to the learned Professor that Harvey may have thought that Cesalpino's speculations on the outward flow of the blood during the waking state, and its reflux during sleep, had more of the ludicrous than the luminous about them; and that, if Harvey had wished to exalt himself by comparison with others, he could not have done this better than by printing in parallel columns his own brief and clear description of the circulation, and the fanciful theories of Cesalpino.

Both Professors Ceradini (page 268) and Scalzi (page 19) contrast what they designate Cesalpino's gentleness and modesty with Harvey's vehemence and pomp of words ("violenza e pompa di parole"). And this Dr. Ceradini considers a sufficient explanation of the little notice taken of Cesalpino's physiological writings, while Harvey found himself at once assailed by a host of enemies. The simple explanation of this contrast is that one was nothing more in physiology than an expounder of ancient speculations, which being for the most part unintelligible, excited no controversy, while the other set forth novel doctrines with such unmistakable clearness as to excite at once the attention of the world and the opposition of all to whom previously unrecognised truths are unwelcome, and even hateful.

Dr. Ceradini asserts that Harvey's doctrine of the blood being propelled into the ventricle by the contraction of the auricle is erroneous; and this notwithstanding the decisive evidence(d) which Harvey adduces in support of his statement (Cer., page 87). Dr. Ceradini expresses his determination to enter upon an experimental inquiry with regard to this question. In the course of this inquiry he will do well to take into consideration the evidence in support of Harvey's doctrine of the propulsive influence of the auricles, which is afforded by the clinical phenomenon of the presystolic thrill and murmur which result from constriction of the mitral orifice.

Dr. Ceradini not only exaggerates greatly the importance which Harvey attaches to the valves in the veins as evidence of the course of the blood, but in order, as it would seem, to depreciate as much as possible what he most inaccurately asserts to be the only new evidence which Harvey could adduce in proof of the circulation, he maintains that the valves in the veins are not at all necessary for the circulation of the blood: "Le valvole delle vene non sono punto necessarie alla circolazione del sangue" (page 202). Perhaps it has not happened to the learned Professor of Physiology to witness the many distressing and even fatal consequences of the impeded circulation that results from such a dilated and varicose condition of the veins as renders their valves incompetent to prevent the reflux and backward gravitation of the blood.

The best piece of criticism in Dr. Ceradini's book is that to be found at the commencement of the first chapter, in which, after referring to a tablet in the Veterinary Institute of the University of Bologna, attributing to Carlo Ruini the discovery of the circulation of the blood, he mercilessly exposes the plagiarisms of Ruini and demonstrates the utter absurdity of the attempt to make of him a great discoverer. At the end of the chapter (page 74) he expresses a hope, in which he believes that every friend of truth and justice will join, that the lying inscription (*l'epigrafe menzognera*), which speaks of Ruini as the discoverer of the circulation, may be removed from the walls of the University of Bologna. It is certainly inconvenient that Italy should simultaneously have monuments in honour of two different supposed discoverers of the circulation—that of Cesalpino at Rome, and that of Ruini at Bologna.

d After the heart (*i.e.* the ventricles) had ceased to beat, the auricles, however, still contracting, a finger placed upon the ventricles perceives the several pulsations of the auricles, precisely in the same way and for the same reason, as we have said, that the pulses of the ventricles are felt in the arteries, to wit, the distension produced by the jet of blood. And if at this time, the auricles alone pulsating, the point of the heart be cut off with a pair of scissors, you will perceive the blood flowing out upon each contraction of the auricles.—Dr. Willis's translation, page 27; Coll. Edition, page 19.

THIRTY-THIRD SESSION OF THE

GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

THE thirty-third session of the Council was opened on Tuesday last; the President, Dr. Acland, in the chair.

The following new members were inducted, with the customary formalities:—John Marshall, Esq., as representative of the Royal College of Surgeons of England, for five years from June 9, 1881, in place of Sir James Paget, resigned; Thomas Collins, Esq., as representative of the Apothecaries' Hall of Ireland, for one year from August 1, 1881; Dr. Robert Dyer Lyons, M.P., as Crown Nominee for Ireland, for five years from November 29, 1881, in place of Dr. A. H. McClintock, deceased; Dr. Thomas King Chambers, as representative of the University of Oxford, for five years from February 14, 1882, in place of Dr. Rolleston, deceased.

The PRESIDENT then delivered an inaugural address, which will be found elsewhere in our columns.

A table was laid before the Council, showing the results of professional examinations held in 1881 for qualifications granted under the Medical Act by the bodies named in Schedule (A) of the Act; also a table showing the number of exceptional cases that occurred during the year under Clause 20 of the Council's "Recommendations on Education and Examination," together with a statement of the action taken thereon by the several licensing bodies.

The following letter from the King and Queen's College of Physicians in Ireland was laid before the Council, and ordered to be entered on the Minutes:—

King and Queen's College of Physicians in Ireland,
Dublin, March 23, 1882.

Dear Sir,—In reply to your letter of 22nd inst., calling my attention to the Minutes of the General Medical Council of April 24, 1881, I beg to inform you that such a return as there asked for is not practicable in the case of candidates who have already obtained a registrable surgical or medical qualification, as the practice of this College in such cases is to dispense with information as to when and where the Preliminary Examination was passed. I am, dear Sir, yours faithfully,
J. MAGEE FINNY, M.D., Registrar.

The Registrar of the General Medical Council.

Returns were presented from the Army and Navy Medical Departments, showing the degrees, diplomas, and licences of the candidates for commissions in the Army who on February 20 last presented themselves for examination; also a list of candidates for the Medical Department of the Navy who presented themselves for examination upon the same date, with the numbers of rejections.

A letter was read from the Privy Council Office, enclosing a draft Bill for the registration of midwives in England and Wales, and requesting the Council to favour their Lordships with any remarks they might think fit to make with reference thereto.

Dr. QUAIN moved that the Bill be referred to a Committee of the Council on the subject during the present session.

Dr. PYLE seconded the motion.

Sir WILLIAM GULL thought the appointment of a Committee would be an admission that the Council was prepared to go on with the whole question, and he doubted whether the subject was at present ripe for legislation. Indeed, there was no class of midwives to legislate for at present. The question had not fairly come into the domain of consideration, much less of legislation, and he thought the Council would be acting with too much haste if they were to appoint a committee.

Dr. QUAIN thought they were bound to give an expression of opinion with reference to the Bill.

Mr. SIMON said he had no doubt that the most convenient course was to refer the matter to a committee, but he agreed with Sir William Gull that some caution was necessary even at that stage of proceedings, so that it might not be supposed that they would be precluded from considering afterwards whether it was advisable to proceed with the measure. At present they were holding their seats only until their successors were appointed, and it might be a question whether it would be convenient for them to accept on behalf of their successors new responsibilities. As far as he had looked at the Bill he thought that if there was a regulation of midwives the relation of the Council to that regulation must be something like that proposed in the Bill. He did not think it would be convenient that the Bill should become law during the present session of Parliament, but it should follow on the Medical Acts Amendment Bill, which would in all probability be brought forward next session. Everyone would agree in the general object proposed, but there were some parts of the Bill which required consideration. For instance, it was proposed that certain expenses connected with the administration should be paid by the General Medical Council. The Act would not be a cheap one to work, and that was a question to be fully considered.

Mr. MACNAMARA regretted that the Bill was limited to England and Wales, and thought that its provisions should be extended to Scotland and Ireland. A school had been established in Ireland, the merit of which was entirely due to the governors of Sir Patrick Dun's Hospital, where the most admirable training had been given to midwives under the auspices of the late Sir Edward Sinclair.

Dr. LYONS said the proposal before the Council was of a very wide character, and ought to be seriously considered. As far as he understood it, it was a proposal to tack on, in some not very clearly defined way, to the Medical Council the responsibility for an indefinite number of women throughout the country. It appeared to institute a sort of additional grade in the profession. That might be very desirable for the public, but it was a matter on which the Council ought not to act hastily. The question should be more fully ventilated in the press, and an opportunity should be given to the profession at large to consider all its bearings before the Council gave its sanction to the proposal. If the Act were passed for England, of course its extension to Ireland and Scotland would be a mere question of time. There was not the slightest possibility of any measure of the kind being passed in the present session, and therefore no harm could arise from the exercise of caution and delay on the part of the Council. He begged to move, but out of no hostile feelings to the measure, that it be taken into consideration that day six months.

Sir WILLIAM GULL moved—"That whilst the Council are impressed with the importance of the question relating to midwives, and acknowledge the receipt of the draft Bill from the Clerk of the Privy Council, they think it desirable to delay its formal consideration until the next meeting of the Council."

Dr. LYONS said he accepted Sir William Gull's amendment in place of his own, and would be glad to second it.

Professor TURNER said that the amendment practically asked the Council to abnegate its functions. Dr. Quain's motion was in conformity with a rule long adopted by the Council, of referring to a committee any Bills forwarded by the Government. He thought the Council was bound to take action in the matter; and to act in the way suggested by the amendment would be to treat the Lord President with anything but proper respect. It did not follow that the committee would approve of the Bill, and its appointment in no way pledged the Council as to the course to be adopted.

Dr. WATSON said there was a certain feeling abroad that the Council concerned itself but little in regard to obstetrical matters, and if the question were delayed indefinitely the grounds upon which that feeling rested might be strengthened. In the appointment of the committee the Council committed themselves to nothing, and he therefore supported the motion.

Dr. QUAIN said the question was not a new one to the Council. It was introduced in the Duke of Richmond's Bill, and from that time to the present it had been postponed until the Council should be reformed, and now they were asked again to postpone it. The question was really of pressing importance and urgency, for the injury inflicted on suffering women by ignorant midwives was dreadful to contemplate. If the Council declined to take the subject into consideration it would probably be taken up by some other body—perhaps the Local Government Board. As to the question of pecuniary responsibility, the Bill only stated that the Council "may" contribute its funds to the carrying out of the Act, but there was no compulsion.

Sir WILLIAM GULL was still of opinion that the matter was not yet ripe for action on the part of the Council. He reminded Dr. Quain that, according to a decision of the Master of the Rolls, the word "may" in an Act of Parliament meant "must" unless there was something to express the contrary.

The amendment was then put to the Council, and lost.

The motion was put and carried, and the committee was appointed.

A report presented to the Executive Committee by the late Mr. Ouvry, then Solicitor to the Council, with reference to an alteration in the Standing Orders with regard to the removal of a name from the Register, was read:—

The jurisdiction of the Council under the 29th section is peculiar. The Council has no power to take evidence on oath, nor has it power to compel the attendance of witnesses, and if the Council is to act only on what the law courts would decide to be legal evidence, there might in most cases be difficulty in acting effectually under the section.

The Council is constituted a kind of "forum domesticum" to decide on professional misconduct which they may consider infamous, and they must satisfy their consciences as best they can on the truth of the cases brought before them on such evidence as amounts to a reasonable conviction

I am of opinion that the Council ought not by by-laws to abridge the liberty which the Act gives them.

In any case, all necessary information will be afforded to the accused by the Solicitor of the Council, on request made for that purpose, but I do not see why the Council should bind themselves to do so. The Council may, if thought necessary, give a direction to the Solicitor to furnish the evidence in all cases, which will have the same effect as the suggested alteration in the Standing Orders, while it will not give the accused any right which may enable him to raise objections on point of form.

With regard to printing the summons in the programme of the day, this is hardly a fit subject for a Standing Order. If it be thought expedient that this should be done, a direction to the Registrar is all that is necessary.

The only alteration in the Standing Orders which appears to me to be necessary is to strike out the words "with at least one month's notice" in the 4th section of chapter 14. It often happens that the day fixed for the meeting of Council is not known so long before.

May 16, 1881. FREDERICK OUVRY.

On the motion of Dr. PITMAN, seconded by Mr. SIMON, the report of Mr. Ouvry was adopted, and the alteration of the Standing Orders proposed by him was agreed to.

The REGISTRAR read the report of the Dental Committee.

Mr. FARRER then brought under the notice of the Council the case of Mr. John Thomas Molloy, whose qualification had been taken away from him by the Faculty of Physicians and Surgeons at Glasgow.

Dr. PITMAN moved that, as by the report of the Dental Committee it appeared that Mr. Molloy had ceased to be a Licentiate in Dentistry of the Faculty of Physicians and Surgeons at Glasgow, such qualification be erased from the Dentists' Register, and that the Registrar be ordered to erase such qualification accordingly.

The motion was seconded and carried.

The PRESIDENT pointed out that as Mr. Molloy had been in practice before July, 1878, the resolution did not have the effect of erasing his name from the Register altogether, but merely referred to the qualification.

Dr. ORR, on behalf of the Faculty of the College of Physicians and Surgeons at Glasgow, said that it was not on account of any moral guilt that Mr. Molloy had been deprived of his qualification, but merely because he insisted upon advertising in the most open and barefaced manner in spite of numerous applications to desist.

Mr. FARRER then referred to the next case—that of Mr. C. Valleck Mallan, who was also in practice before the Dentists Act was passed. He had admitted practising at four different places—at two in his own name; at one in the name of Charles Smith, a late partner; and at another in the name of C. Valleck,—and had expressed his willingness to do what the Council thought right in the matter. The Dental Committee had had Mr. Mallan before them, and they believed he was a straightforward man, who was speaking the truth.

After a letter written by Mr. Mallan had been read by the Registrar, strangers were asked to withdraw.

On the readmission of the public, it was announced that on Mr. Mallan's assurance that he would discontinue the practices complained of, the Council did not think it necessary to take any further steps in the case.

The Council adjourned.

SECOND DAY—WEDNESDAY.

The following Report by the Preliminary Scientific Examination Committee, consisting of Dr. Haldane, Dr. Storrar, Dr. Humphry, and Professor Turner, was taken into consideration by the Council under the following circumstances.

On April 29, 1881, the Preliminary Scientific Examination Committee laid before the General Council its Report on the subject that had been remitted to it on July 14, 1880, along with answers from eighteen of the licensing bodies, whereon this Report had principally been founded. The Committee's Report concluded with the following recommendations:—

"Firstly, that the recommendations of the Council at present in force in respect of the Natural Science subjects in the preliminary examination be not at present changed.

"Secondly, that the attention of those licensing bodies which have not complied with Recommendation 31 of the Medical Council be directed to that recommendation; and that it be further recommended that the subjects of this first professional examination be as follows:—

"1. Elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics (unless an examination in that subject shall have been passed at the preliminary examination).

"2. Chemistry and chemical physics (meaning thereby heat, light, and electricity).

"3. One or more subjects of elementary biology, which may be elements of human anatomy or of human anatomy and physiology, or of botany, or of zoology and comparative anatomy."

When this Report was considered by the Council, the adoption of the first recommendation was proposed and seconded, but in its place the following amendments were agreed to:—

1. "That it be recommended to the several licensing authorities under the Medical Act, to consider whether they can separately or conjointly take steps to promote the establishment of a preliminary scientific examination, and to require of all candidates for their respective licences that, after passing the preliminary examination in general education, and either before commencing the purely medical curriculum, or at latest before the end of the first year thereof, they shall pass such a preliminary scientific examination as is proposed."

2. "That the whole subject be referred to the same Committee, with a request that, after they have received and considered the answers from all the medical authorities, they report thereon, and that their report be sent to each member of the General Council preparatory to its consideration at the next session of the Council."

A letter in the terms of the first of these amendments was accordingly sent by the Registrar to each of the medical authorities. The annexed answers from five bodies only have been received, and these consist mainly of an expression of their adherence to the opinions expressed in their former communications. The Committee believes that the reason the other bodies have not answered the Registrar's letter is, probably, that they have nothing material to add to their former statements.

Under these circumstances, the Committee, having no fresh matter before it, begs to adhere to its former Report.

D. R. HALDANE, Chairman.

Dr. HALDANE said that only five of the bodies had returned answers in response to the request of the Committee, and their replies were, in fact, abstracts of what they had said in their previous statements. Under those circumstances the Committee thought it was unnecessary to proceed further than to repeat the recommendations which they had offered last year. He would now move that the report of the Preliminary Scientific Examination Committee be received and entered on the Minutes.

The motion having been seconded by Dr. STORRAR, was unanimously adopted.

Dr. HALDANE said he purposed to bring before the Council only the first of the two recommendations, namely, "That the recommendation of the Council at present in force in respect of the Natural Science subjects in the Preliminary Examination be not at present changed." The Committee were satisfied, from the answers they had received, that the bodies were prepared to follow the suggestions of the Council, several of them having already embodied them in their system of examination. The Committee did not think it necessary to proceed at present with the second recommendation; he therefore moved a resolution in the terms of the first.

Professor HAUGHTON demurred to a statement which Dr. Haldane had dropped, that the second recommendation had received the approval of the licensing bodies. Five of those bodies had expressed an opinion upon the subject, and two very important corporations, the University of Glasgow and the Royal College of Physicians of London, held exactly the same views upon the question which he (Professor Haughton) and the University of Dublin wished to express; and he would borrow the language of Dr. Pitman's answer on behalf of the

College of Physicians of London, "That the College sees great difficulty and no advantage in introducing at the present any further alterations." The body that he represented was so opposed to the second part of the Report that they would refuse to consent to it. It appeared to go upon a wrong basis, because it was equivalent to a proposal to convert corporations, like the Colleges of Physicians and Surgeons, into universities. Each university had its own way of teaching the higher subjects, and it would be detrimental to the students to introduce a system such as that suggested. In passing he would allude to the answer of the University of Durham on this matter, which was perfectly amazing. Words sometimes dropped at the Council which seemed to cast a slight upon this University and to treat her as a weak sister, but it was quite evident from the reply that this slur must no longer be cast upon her, because she was so delighted with Dr. Haldane's proposal that she recommended, amongst other things, that they should require "a complete knowledge of the classification of animals." (Laughter.) Now, he (Dr. Haughton) had been studying living and dead animals and their classification for the last thirty years, and he must confess he had not at present arrived at that point of perfection which this magnificent University was anxious to exact from its students. (Laughter.)

Mr. SIMON spoke in favour of Dr. Haldane's motion, which, having been put to the vote, was adopted.

Dr. STORRAR then moved—"That a committee be appointed to consider and report to the Council on the list of bodies whose examinations in general education are at present recognised by the Council." His object in giving this notice of motion was that there should be a committee appointed, who should pass in review the very varied testimonials in respect of Preliminary Arts education at present recognised by the Council. He felt that the number was very great, and that the time had now come when probably some of them might be dropped altogether. He also believed that there was a large number of examinations by Indian, colonial, and foreign universities and colleges, which might be termed superfluous. The truth was, that some questionable ones having been recognised by the Council, a number of others still more open to question had been rushing forward, endeavouring to obtain the same recognition. Circumstances had occurred, however, which led him to question the expediency of bringing forward this important subject during the present session—one being the surrender of their Arts examination by the College of Surgeons of England. He looked upon that as a very great gain, and he hoped that the example would be followed by some other corporations, more particularly as there was something in the Report of the Royal Commission pointing in that direction. There could be no doubt that the Arts bodies were more competent to do this work than purely professional corporations. He was in the hands of the Council whether the motion should be pressed forward now or not.

Dr. HAUGHTON considered that the present was the most opportune time for the appointment of a committee upon this subject. As to the Report of the Royal Commission, it was such a confused wrangle of discordant elements that it was not worth considering. It was absolutely the most helpless public document he ever had the misfortune to read—(laughter)—and he would undertake, with the help of the Irish members, to throw out any Bill founded upon it. In fact, it would never obtain the sanction of anybody outside a lunatic asylum. (Laughter.) He would urge the Council to imitate the tactics of Rome, when, being pressed by the Carthagenians on one side, she sent out an expedition against the Parthians on the other. He urged the Council to proceed as if it had not a single enemy in the Government or in the world, to do its own work; and there was no work more important than this. He trusted that the College of Surgeons in Ireland would follow the example of the sister College in England, and should the appointment of this committee lead to so desirable a step, it would confer a great benefit upon the whole profession.

Mr. MACNAMARA also supported the resolution. He believed that there should be an Index Expurgatorius of all these bodies. The practice of the College of Surgeons in Ireland at present was to accept the preliminary examination of any of the bodies whose names were on the list of the Council. This was done out of deference to the recommendation of the Council, but it was very questionable whether candidates from such bodies fulfil the requirements either of the College or of the General Medical Council with regard to preliminary education. What did they know about these American and foreign universities? A most important thing in preliminary education, far beyond the study of Greek, was a thorough knowledge of English, and, from his experience of French and Italian professors, he doubted whether they were competent to examine in the English language. He might inform the Council that although the College of Surgeons in Ireland at present conducted their own Arts examination, they employed examiners who were perfectly independent of the College, and who had no interest whatever except to insure a good and efficient examination. They were, moreover, a body of men having the highest university degrees. At the same time the College would be delighted to get rid of the trouble of conducting these Arts examinations if they could see their way to handing them over to some competent examining body.

Mr. COLLINS, on behalf of the Apothecaries' Hall of Ireland, having made a similar statement to that of Dr. Macnamara,

Professor TURNER reminded the Council that these foreign and colonial bodies had not been put on the list without careful consideration. The Executive Committee had taken samples of their examination papers, and, as far as possible, they had sifted the quality of their examinations; therefore the term "indiscriminate" ought not to be applied to the list of bodies whose examinations were accepted by the Council. Furthermore, they mainly consisted of British, colonial, or Indian educational corporations, and it was of the utmost importance to encourage sympathetic relations between the colonies and the mother country in matters medical as well as in matters political. (Hear.) It could not be expected that students from the colonies would come over here to study medicine, if they were to be subjected to a preliminary Arts test, when their object was to enter upon the study of their profession.

Dr. MACNAMARA withdrew the word "indiscriminate," because he had no desire to reflect upon the work of the Executive Committee.

Professor HAUGHTON having asked Mr. Turner what knowledge he had of such a college as the Medical College of Ceylon, or the Medical College of Nova Scotia, added, that he was in a position to say that the College of Ceylon ought not to be on the list.

After some further observations by Dr. HALDANE, in explanation of the course adopted by the Executive Committee in this matter,

Dr. STORRAR expressed the gratification he felt on learning that the examinations conducted under the supervision of the College of Surgeons and the Apothecaries' Hall of Ireland were by examiners drawn from Arts bodies. With regard to the motion before the Council, he did not propose to make a complete sweep of the list; but the question was whether it was not advisable that it should be considerably curtailed: whether, for instance, instead of putting the "University of California" on the list, the students from such universities should not be recognised from time to time when they made applications; in fact, whether the *onus probandi* should not be cast upon them of giving evidence as to the kind of examination they had passed, which would be satisfactory to the Executive Committee.

The motion was put to the vote, and unanimously adopted.

Professor MACNAMARA then brought the following motion before the Council:—"That it is desirable that this Council should know what provisions, if any, are taken to ensure the impossibility of 'personation,' at the examinations of the several bodies, the certificates of which are accepted by them as satisfactory evidence of preliminary examination; and that the Executive Committee be requested to inquire into, and report upon, this subject, previous to the next meeting of the General Medical Council." He said: If the Council will kindly listen to me I can give very good reasons for the appointment of this committee. Some time ago it came to our knowledge at the Branch Council of Ireland that a large sum of money (upwards of £200) was offered to a practitioner by a student to pass one or other of the examinations in order to qualify him to have his name put on the Medical Register. Almost at the same time information reached the College of Surgeons that a certain student, who had come out first at our preliminary examination, had not been in Ireland at all at the time, but that he had been

represented by a very accomplished individual on that occasion. (Laughter.) The difficulties were so immense in getting at the true facts in this case, that I am not in a position to state absolutely to you whether the statements made were true or not, although every exertion was made on our part. We summoned this individual to appear before us, and for one long hour we discussed whether he should be called in or not before the Council. At last it was decided that he should be called in. Our Secretary very courteously went out and requested his attendance, and then it appeared that the gentleman never had been there at all. (Loud laughter.) A young military friend of mine was dining with me on the very day, and I told this story as a capital joke, when my friend laughingly said, "Oh, my dear sir, do not you know it is a common thing? I know one gentleman who not only passed your preliminary examination for himself, but he passed it for three others and got highly placed." I asked, "What has become of him?" He answered, "He has gone away; he is in England." Well, I daresay he is doing a very good trade here. (Laughter.) I then continued my inquiries, and I found out—but in such a way that I could not utilise the information—that there was a most successful "grinder" in Dublin, who kept a student for the purpose of passing preliminary examinations. (Loud laughter.) The way the examinations are conducted is this. The student calls at the College of Surgeons, puts his name on the list, and is given a card with a number on it. He comes in with that number and is examined. I may say this is done to prevent any favouritism by the Arts examiners. They do not know the man except as a number. The same thing is done at the intermediate examinations in Ireland. I went to the University of Dublin a day or two before leaving, when an intermediate examination was taking place, and I asked the superintendent what system they pursued there. He said they were known by numbers, and that there was a written examination and nothing else. I asked, "What is done with the papers?" and it appeared that concentration was the order of the day, for I was informed that they were sent to London, and then the judgment is sent back, and the pupil learns whether he has passed or not. I then said, "Now will you tell me what security have you that that young man who sits there as Mr. Jones is not Mr. Brown who is personating him?" And he was unable to give me any answer. All I could learn was that we were not a bit worse off in Dublin than they are at Oxford and Cambridge at their local examinations, where personation may go on to any extent. Now, I think it is most desirable some steps in the direction of my resolution should be taken, and I place it in the hands of the Executive Committee as the most competent body to make the necessary inquiries, and to report at the next meeting of the General Medical Council the answers that the several bodies may give as to the precautions they take for the purpose of preventing personation. One reason why the College of Surgeons, Ireland still hesitates about adopting the examinations that Dr. Storrar has referred to, is that they are all written: there is no *viva voce* examination. Having spent several years of my life as a teacher and examiner, I do not believe that an examination entirely conducted by means of writing can be so satisfactory as one partly conducted on paper, and partly conducted *viva voce*; but, as far as I can learn, none of those bodies that conduct preliminary examinations in Arts conduct them in that way. The learned Professor then proceeded to state that these circumstances might account for the number of rejections appearing against Irish candidates, and justified his theory by a suggestion that it was impossible the examiners for professional diplomas could detect a want of general education, except in matters of spelling and the like. Now, the College he represented was extremely particular on this head, and he felt a grave suspicion that most of those gentlemen who had been rejected had never really passed the examination of the College of Surgeons in Ireland except by proxy in the way he had suggested.

Professor Haughton, having explained that in the case of the offered money, the practitioner to whom the bribe was offered had acted most honourably, and communicated at once with the authorities of the College, who had put detectives on the track of the student, and taken care to communicate with the Secretary of the Council, so that if he applied for registration of any diploma, his conduct should be brought before them, said he regretted that they had been unable to bring the man to book. He entirely concurred in the spirit of Mr. Macnamara's resolution, and pointed out that in the case of the examinations by the Royal College of Surgeons of England, when as many as 600 candidates came up at a time, it was quite impossible that they could all be satisfactorily identified, and therefore there must be great room for personation.

Mr. Pridgin Teale said Dr. Macnamara had certainly brought forward a subject which afforded considerable food for reflection. In common with his fellow-visitors, he had been very much struck with the evidence of defective preliminary examinations in those papers of candidates which they had read. So much so that they had come to the conclusion that it would be wise on the part of the Council to endeavour to obtain some further information upon the subject. They therefore requested the various bodies to send any information they could about candidates who displayed remarkable ignorance. The College of Physicians of Ireland had responded to that, and their reply gave point to the remarks of Dr. Macnamara. The recommendation of the Council upon that subject, however, was rather too indefinite, and that was the reason, perhaps, it had not been more generally responded to. What was wanted was a small committee, whose duty it would be to communicate with the various bodies upon the subject, or to act as special visitors. They should ask all the bodies definitely at each examination to select out of the answers of candidates those which showed the greatest deficiency, and forward them to the committee in order that it might be ascertained where those individuals had passed their preliminary education test. He had found many of them deficient in spelling, and some shockingly weak in Latin. (Laughter.)

The resolution was then put to the vote and adopted *nem. con.*

The following letter was read:—

1, Upper Wimpole-street, Cavendish-square, W.,
June 28, 1882.

Sir,—I am directed by a committee, consisting of members of the Parliamentary Bills Committee of the British Medical Association, and four Fellows of the Obstetrical Society of London, four of whom are past Presidents, to request that the General Medical Council will be pleased to receive them as a deputation to confer with the Council upon the draft Bill for the Registration of Midwives in England and Wales.

I am, sir, your obedient servant,

T. H. Aveling.

After some discussion as to the form in which the deputation should be received, it was resolved to fix the morrow at a quarter past four o'clock for the purpose.

On the motion of Dr. Marshall, seconded by Professor Humphry, it was resolved—"That the Reports on the Visitation of the Examinations of the Medical and Surgical Corporations of the United Kingdom, and the Remarks on those Reports by those Bodies, be received and be appended to the minutes of the present session of the Council."

Dr. Pitman then moved—"That a committee be appointed to consider the Visitation Reports, which have been submitted to the Council and sent to the licensing bodies, and the remarks of the licensing bodies thereupon, and to draw up a report thereon for the present meeting of the Council."

The motion was seconded by Dr. Quain.

Mr. Pridgin Teale made the following statement to the Council, said: I appear before you to-day in an exceptional position. The report of the visitors of the nine corporations, and the criticisms by those various bodies, are laid before you at the same time; and I, as one of those visitors, am the only one who is on this Council, and I have to stand responsible, not only for my own part in the matter, but also for that of my colleagues. The position of the visitors is also exceptional from another point of view. This visitation stands out from all previous ones in the fact that the nine corporations have been visited by the same individuals, and therefore the three visitors are the only persons who have witnessed all these examinations. Nay, more—it is not impossible that the opportunity of visiting the separate examinations of the nine different licensing bodies may never occur again. Speaking for my colleagues and myself, I may say that we undertook this duty with a grave feeling of the responsibility involved. We were to be admitted to a view of the working of these examinations; to be present as critical inquirers into the manner in which they were carried out, and, if possible, into the standard adopted as to passing students. We were responsible to those bodies to act with fairness towards them, and at the

same time we were responsible to the Council and to the public to state honestly and fearlessly the impressions we had derived from these visitations. Whether our work has been done satisfactorily or not will have to be decided, not by first impressions, but by the deliberate judgment of examiners, and councils, and teachers, who shall calmly think out the purport of our report. It is a necessity that any persons doing a work like this, seeing all these examinations—seeing how they differ one from the other—must form opinions as to the relative value of different methods; and in stating that they consider one better than another, they must to some extent touch the *amour propre* of the body that is said to be not equal in some points to the standard of another body. It is therefore not only an arduous, but to some extent an anxious duty, we have discharged; yet, however unpleasant it has been, we feel that whatever we have done, we have done with a sense of discharging a public duty, and with the greatest anxiety to state any opinions of an unfavourable character in a courteous and moderate manner. It must be remembered that this visitation is in its nature less personal than the others, inasmuch as we were not appointed to visit single bodies, but several; so that the work we have been engaged upon has been certainly, in our view, not so much an inquiry as to whether any individual body was doing its duty or not, but rather a critical study of the present state of examinations in the great licensing bodies of the kingdom, in order that it may be possible to extract from such an inquiry information that shall be of value in the future as to the best method of carrying on the affairs and details of medical examinations. It must be observed that, as a rule, we pick out pre-eminently all that we think excellent in these examinations, and we state in the very beginning that in every examination we find features specially worthy of commendation, and a large amount of good work done by earnest and competent men. Moreover, we are convinced that the struggle between the corporations is not one of a competition downwards, but a competition upwards. It will be observed in that part of our report which probably is the great centre of criticism, namely, "the conclusions," that we say, "The visitors append the following conclusions as the points they think desirable in the conduct of medical examinations," and we bring out those points that have struck us as things to be picked out for consideration by those who are engaged in regulating medical study. The function of this report will be to excite criticism very freely (as it has done already), and its effect will be none the less if it excites hostile criticism. Should it do nothing more than make people study and try to work out the best system in the future, our labour will not have been in vain. And now let me express another point of view, in which I do not claim any responsibility for my colleagues—that examinations properly conducted, that is to say, in the best known methods, in methods which will elicit from the student the most profitable kind of work and study, are costly and very laborious affairs. It has taken the full resources of the College of Surgeons of England up to a late date to examine in the three subjects of anatomy, physiology, and surgery; but what would it have cost them to have examined upon all the other subjects of medical education? What must we deduce from this? That any waste of examining power, whether it be by different bodies overlapping in their subjects—that is to say, the work being done twice over—or any portions of examination that can be eliminated without weakening the object of the examination, is a material loss, and a thing that must in the future be carefully avoided. It is a waste of power that the College of Surgeons should have to undertake midwifery, medicine, chemistry, and therapeutics, and still leave a candidate incompletely licensed. It is a waste of power that the College of Physicians, with its ample resources for examining in medicine, midwifery, therapeutics, and such like, should have to provide all the machinery for those parts of examination so splendidly supplied by the College of Surgeons—anatomy and operative surgery. To my mind, the only logical conclusion of our report in this respect is that these bodies must combine, for the sake not only of efficiency but of economy, and each take their proper and natural part, and do it as well as they have always done. Whilst on this point, I may express my opinion that there must be more study and economy in carrying out examinations, and that the suggestion which seems to have startled some of the bodies, that the written examinations should take place at the seats of teaching, and not at the seats of examination, must come before long to be a subject of serious consideration. Medical education and medical examination ought to be the most perfect model of professional training in the country. The medical profession is in this rare position, that the profession itself educates its rising members, examines them, and, through its Medical Council, has the power of deciding what that education and what those examinations shall be. It educates for the practical work of life in probably the most practical profession, and one which comes into wider contact with all kinds of knowledge than any other. It therefore ought to know what is wanted in the educated practitioner. It ought to know how much the young brain can profitably, and without injury to itself, acquire in the way of knowledge and training in the period devoted to a medical education; and from this point of view the profession and its education ought to be a model and corrective to the education throughout the kingdom. If I may be allowed a short digression, which seems somewhat akin to the subject before us, let me say that I believe that much of the future welfare of the educated classes in the country may be influenced by the guiding action of the medical profession in the question of education. Examinations have become such universal tyrants of education; examinations have been and are not only potent for good, but, I fear, very often for evil. We who are practitioners are perpetually fighting the battle of poor overworked young brains, allured by that *ignis fatuus* of prizes, scholarships, and class-lists of the universities. Examinations at the present time, whether in the universities, or still more in the competitions in civil and military life, are becoming one mighty force, of which the result is expressed in their influence upon the brain and nervous system. The outcome of educational training is about the last thing that seems to be thought of by those who have the planning and conducting of these examinations. It is then for us, the medical profession, first to set our own house in order, and show that, with all our experience and knowledge, we can work out what is good for our own profession, and then to come with force upon the public, and rescue those whom we see daily being dragged under the wheels of the great Juggernaut. Now, gentlemen, having stated to you the aims which the visitors have kept before them in working out this Report, and the views we hold as to the function of the Report in relation to the future, I place it in your hands and in the hands of the profession, claiming that the visitors have discharged their duty in the spirit of the declaration made by the examiners in the University of Oxford; and that they have carried it out—"*Sepositis omni odio spe, et amicitiâ, pro virili parte.*" (Loud applause.)

On a motion to refer the Report and Remarks (which consisted of two closely printed volumes of upwards of 200 pages) to a committee,

Professor HAUGHTON insisted that the matter should be taken into consideration by the whole Council. He had a very high sense of the value of the services of gentlemen who consented to act upon committees of the Council; but there was a certain class of work which the Council should have the courage to do for itself. It was very convenient for twenty-four members to hand over a disagreeable job to a committee, but it was a very otiose mode of discharging their duty; and it appeared to him there never was a question brought before the Council more worthy of the minute and careful consideration of every member than this. Even on the question of economy of time it would be better that a matter of this kind, which had been already condensed to the utmost by the labours of the visitors, should be dealt with by the Council in what he might call a committee of the whole house. He had read these two documents with great care, and, in order to get more thoroughly at the bottom of them, he had followed the advice of an old lawyer friend, which was to read the defendant's case first. He had, therefore, perused the Remarks of the corporations, and then read the Report and he had so fully considered the two together that he did not think the report of any committee could change his opinion upon them. He wished to compliment the visitors on the amiable way in which they had drawn up their report, and, taking the position of a college lecturer, he would award the prize amongst the remarks of the corpora-

tions to the College of Physicians of Edinburgh for vigour of language and straightforward dealing with the subject. (Applause.)

After some further remarks from Dr. Aquilla Smith, Dr. Quain, Mr. Simon, Professor Tuener, Mr. Macnamara, and Sir William Gull,

The President put another amendment, which had been moved by Professor Haughton, to the Council, and it was adopted by a large majority.

On the motion of Mr. Teale, seconded by Sir William Gull, it was resolved that the Council should to-morrow consider *seriatim* the conclusions arrived at on pages 56 to 59 of Part I. of the Report.

Sir William Gull having paid a high tribute to the work of the visitors and to the preliminary statement of Mr. Teale, moved a vote of thanks to those gentlemen, with a request that Mr. Teale should furnish to the Council a copy of the able statement he had made to them, which he suggested should be embodied in the Report.

The motion was seconded by Mr. Simon and agreed to *nem. dis.*

The following communication from the King and Queen's College of Physicians in Ireland was then read:—"King and Queen's College of Physicians, Ireland.—Dublin, June 16, 1882.—Sir,—By direction of the President and Fellows this College, I have to inform you that Mr. Robert Gray, of Melbourne-terrace, Armagh, has surrendered to the College his diplomas in Medicine and Midwifery, which he had received in March, 1873.—I have the honour to be, Sir, your obedient Servant, (signed) J. Magee Finny, M.D., Registrar; W. J. C. Miller, Registrar of the General Medical Council."

Dr. Aquilla Smith moved that Mr. Robert Gray having surrendered his diploma, the Council should remove his name from the Register.

Dr. Pitman pointed out that the Council had no power under their Act to remove the name of a practitioner from the Register in respect of a diploma, unless his qualification had been previously removed by the body which had conferred it.

Dr. Aquilla Smith, upon being asked the reason for the surrender of this diploma, stated that Mr. Robert Gray having been called to account by his College for compounding drugs for profit in contravention to a declaration which he had signed upon receiving his diploma, had informed the authorities that he was prevented by stress of circumstances from abandoning the practice, and therefore he would for the present surrender his diploma. The College of Physicians felt that although they were determined to insist upon the etiquette of their profession being observed, there was no moral offence in the course taken by Mr. Gray which would entitle them to erase his name from their roll, and they had accordingly taken the middle course of accepting the surrender of his diploma.

Sir William Gull severely criticised this action on the part of the College of Physicians in Ireland, and called it "an unworthy juggle," for which language he was called to order by Dr. Lyons, and immediately withdrew the obnoxious expression. He, however, at the same time expressed his inability to understand the Irish mind. (Laughter.) They appeared to be endeavouring to get the Council to do for them what they were afraid to do for themselves.

Professor Haughton said the proper course would have been to have burnt the diploma; and

Dr. Lyons thought the only error that had been committed in the matter was that of bringing such a question before the Council at all.

Dr. Aquilla Smith then said that, bowing to the evident sense of the Council, he would withdraw his motion.

The following communication in regard to alleged insufficiency of term of study was then read:—"7, Great George-street, Wigan, May 26, 1882.—Dear Sir,—I beg to draw the attention of the Medical Council to the following facts:—1. George Abbott, of Standishgate, Wigan, registered in 1879 as a medical student. 2. George Abbott, of Standishgate, Wigan, registered in 1881 the L.K.Q.C.P.I. qualification. Will you kindly bring this before the meeting of the General Medical Council on the 27th of next month.—I am, Sir, your obedient Servant, Wm. Berry.—To the Registrar of the General Medical Council."

It was resolved that the Registrar be directed to send the foregoing letter from Mr. Berry to the King and Queen's College of Physicians, Ireland, and to ask for information from the College upon the subject.

The Council then adjourned.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

AMPUTATION FOR SENILE GANGRENE AT THE AGE OF SEVENTY—RECOVERY.

Under the care of Mr. HUTCHINSON.)

Jane G. came first to the hospital in 1877, being then sixty-four years old, and having been, except for frequent chilblains, very healthy. She attended for a very extensive epithelioma of the scalp, which a portrait shows to have almost covered the head, presenting a fungating and bleeding surface.

Mr. Rivington removed it with Paquelin's cautery, and now (five years later) there only remains a thin but extensive scar on the vertex, which is concealed by the surrounding hair.

She returned in April, 1882, being then in her sixty-ninth year of age, stating that three months before a sore had formed on the left heel, perhaps due to the pressure of a tight boot. On examination, a circular gangrenous patch, two inches across, with well-defined congested margins, was found on the inner side of the left heel.

The radial pulse was full, regular, 92. Neither anterior nor posterior tibial pulse could be felt, and subsequent dissection proved the popliteal artery to be so much thickened as to be almost impervious.

The patient was kept in bed; iodoform was applied to the sore; and a good diet, with quinine and iron, were given. However, a week later a second patch of gangrene formed on the outer side of the same foot, commencing in a blood-stained bulla, and other suspicious spots of inflammation appeared between the toes. The patient suffered great pain, and her temperature rose occasionally to 101°. She took but little food, and was frequently in a state of quiet delirium. It was clear that she would soon sink.

On May 4, Mr. Hutchinson amputated above the knee by two flaps; the anterior was made by dissection, the posterior by transfixion. Five vessels were ligatured; there was very little hæmorrhage. Chloroform was given, as usual with old patients. Lister's dressings were used, and were left off fourteen days after the operation, and on the twenty-first she was ordered to get up two hours daily. Pain ceased from the day of amputation, and the temperature was almost constant at 99°. She occasionally was given opium and chloral to obtain sleep.

There is but one drawback to this case, namely, that at two spots on the other foot a tendency to pass into gangrene has since shown itself. However, by avoidance of pressure the sores have, at present, healed.

The case presents three points of interest: first, the tendency to chilblains in early life, followed by extreme disease of arteries in the senile period; second, the successful amputation for senile gangrene—one out of several that Mr. Hutchinson has done in the last few years; and third, the non-recurrence of the scalp tumour.

The Stanley Hospital Bazaar, Liverpool.—This bazaar, which was held in Stanley Park during Whit-week, in aid of the funds of the Stanley Hospital, was so extensively patronised by the crowds who every year choose Liverpool as the place to spend their Whitsuntide holidays, and so successful, that it suggests the idea that it might be made an annual fête in aid of the medical charities. The accounts are now nearly made up; and, although the exact sum that will result to the Hospital is not yet known, there is said to be no doubt that it will at least exceed £4000. It is the intention of the Committee to extend the hospital buildings, as the present accommodation has become quite inadequate for the surrounding population.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JULY 1, 1882.

THE GENERAL MEDICAL COUNCIL.

THE Address with which the President of the General Medical Council opened the present—the thirty-third—session of that body does not offer much matter for comment. We place it in full, in another part of our pages, before our readers, and they will recognise, we think, that it is tinged, almost throughout, with a certain tone of depression or melancholy, as if the Council had met under the shadow of a possible doom to extinction by the Royal Commission on the Medical Acts. And, in fact, the President alluded more than once to the Royal Commission and its expected report; and in alluding to some question previously raised in the Council as to whether it would be expedient, at all events in the present year, that the Council should not meet at Easter, he said, "At a time when a Royal Commission was sitting to inquire into the working of the Medical Acts, with, as was well known, the certainty of strong pressure being put on the Commission to recommend the reconstitution of the Council, it seemed improper, and possibly also futile, to attempt to fix a date for the future meetings of a body which might perhaps no longer exist." But the President and the Council may find some comfort in the saying that threatened institutions live long. Moreover, reports of even Royal Commissions are not always promptly utilised; and can any interpreter of the signs of the times discern in them a suggestion even that we are within measurable distance of the day when Government will feel able, if desirous, to make a serious attempt at legislation for the medical profession? The first business before the Council now would be, the President said, the consideration of the "Report on the Examinations, 1881-82, of the Medical and Surgical Corporations of the United Kingdom," by the visitors appointed by the Council; together with the remarks by the corporations on the Report of the visitors. The Report forms a goodly volume of 217 pages; and the remarks by the visited corporations fill fifty-two pages; so that if the Council consider them at all fully, it may be expected that the work will occupy them for a considerable time. The President did not express "any detailed opinion" as to the manner in which the visitors had fulfilled their task; but he spoke, and justly, in very laudatory terms of the earnestness and thoroughness with which they had laboured, without stint, at the work they had undertaken, and of the value of the official record that has been thus obtained of the condition of the examinations as conducted by the corporations, after over twenty years of the existence of the Medical Council. He alluded to one part of the Report which must be particularly interesting. The visitors were specially directed to inquire into the causes of the *rejections* of candidates at examinations. "Time was," Dr. Acland observed, "and that not long since, when the chief allegation against the licensing bodies was that many men passed, who passed only in order to fill the coffers of the body they joined. A new question had now arisen, which, in the opinion of persons so eminent as Professor Humphry and the late Professor Rolleston, demanded your attention, 'Why so many were rejected.' To many minds, this charge and counter-charge indicated difficulties in education and examination, into the nature of which it was a public duty to search without delay." On this subject the visitors have not, we understand, been able to form precise conclusions; but they offer some opinions as to the causes of the large number of rejections, and it will be interesting to know what value the Council attach to these opinions. The President made some remarks on the work the Council has done during its existence; and expressed his regret at the loss of Lord Ripon's Bill in 1871. Had it been passed, he said, "we should for the last ten years have been working a combined-examination system of some description. Our whole force would have been harmoniously expended on perfecting a complete medical education, and on solving the various problems which, in consequence of the vast progress of knowledge, year by year present themselves. But as it is, we have necessarily been distracted by collateral discussions on Parliamentary Bills which have failed to pass, and we have been, without ceasing, impeded by the doubts and uncertainties attending deferred legislation." A recollection of the maxim, "Qui s'excuse s'accuse" would perhaps have deterred most men from remarks of this character, but Dr. Acland has the courage of his opinions, and certainly no one will question the truth and justness of his statement of the progress of our medical students in knowledge and character, the improvement in medical education, etc., during the last twenty years. Whether this is due in any very large share to the action of the Medical Council is another matter altogether. Again, many men may not share Dr. Acland's inability to convince himself, after many years of observation, that the principle on which the Legislature constructed the Council in 1858 was erroneous; but no one would doubt for a moment his willingness to devote his "utmost energies to bring about at the earliest moment" the formation of any Council that would be left to work undisturbed for the promotion of medical education and knowledge.

The Lord President has forwarded for the consideration of the Council a draft Bill for the Regulation and Registration of Midwives. Some legal questions concerning members of the profession have to be brought before the Council; and, of course, some dental difficulties as well as dental business.

The first ceremony that had to be gone through when the Council met was the introduction of five new members, an unusually large number. Mr. John Marshall took his seat as representative of the Royal College of Surgeons of England, in place of Sir James Paget; Mr. Thomas Collins was introduced as representative of the Apothecaries' Hall of

Ireland, in place of Dr. Leet, who resigned the appointment after having held it since the formation of the Council in 1858; Dr. Lyons, M.P., was introduced as one of the Crown nominees, in place of the late Dr. Alfred H. McClintock; Dr. T. King Chambers, as representative of the University of Oxford, in place of the late Dr. George Rolleston; and Dr. Patrick Heron Watson, as representative of the Royal College of Surgeons of Edinburgh, in place of the late Mr. James Spence.

The draft Bill from the Privy Council Office, for the Regulation and Registration of Midwives, was referred to a committee for report during the present session. Sir William Gull and Dr. Lyons made an effort to postpone the formal consideration of the Bill until the next meeting of the Council, on the ground that the subject is not yet ripe for legislation; that there is, as yet, no class of midwives to be legislated for; and because nothing can possibly be done by way of legislation in the matter this year, and that therefore the delay can do no harm. But the majority of the Council felt it would not be treating the Lord President of the Privy Council with proper respect, to delay the consideration of a Bill sent by him; so the Committee was appointed.

A somewhat important report, as regards management of business, from the late Mr. Ouvry, with reference to an alteration in the Standing Orders, was read, and Mr. Ouvry's recommendation was accepted. The remainder of the sitting of the Council on the first day was taken up with dental business.

THE REPORT OF THE ROYAL COMMISSION ON THE MEDICAL ACTS.

The long looked-for Report of the Royal Commission on the Medical Acts has at length been issued, and it undoubtedly will much exercise many minds, without, in all probability, wholly satisfying any. The Commission, which was appointed on May 2 of last year, was somewhat curiously constituted, considering the nature of the work submitted to it. First as regards the work. The Commissioners were to inquire into the grant of medical degrees, memberships, fellowships, licences, and other diplomas to medical practitioners "by certain universities, medical colleges, and other bodies in the United Kingdom," as well as into the courses of education and examination, the payments, and other conditions required as a preliminary to such grant; and also into the skill and knowledge which such degrees, memberships, fellowships, licences, or diplomas represent; into the constitution, functions, powers, and procedure of the General Council of Medical Education and Registration, and the relation of the Council to the universities, medical colleges, and bodies before mentioned, and to the medical profession; into the privileges conferred on registered practitioners, and into the restrictions, disabilities, and penalties imposed upon practitioners not so registered; into the position of registered practitioners in British possessions out of the United Kingdom, and the position in the United Kingdom of medical practitioners educated in British possessions out of the United Kingdom or in a foreign State; into the conditions and manner under or in which medical practitioners are entered in and are struck off the Register; to inquire into the result of the "Medical Act, 1858," and the Acts amending the same, and into all matters dealt with by those Acts; and to report the result of their inquiries, and what amendments are required in the Acts, and what provisions it is expedient to make in these various matters, or in any of them. Then as to constitution. The inquiry dealt solely with matters concerning, primarily and mainly, the medical profession, but of the eleven members of the Commission, the majority (six) were laymen, none of whom had previously had an opportunity of acquiring any special knowledge of medical legislation, education, or any other question submitted to the Commission. It will be well to refresh the memories of our readers by giving their names: the Earl of Camperdown, the Bishop of Peterborough, Right Hon. W. F. H. Cogan, the Master of the Rolls, Right Hon. G. Sclater-Booth, M.P., and Professor Bryce, M.P.—all men of high ability and mark, but knowing nothing of the matters upon which they had to report and advise. The minority of the Commission consisted of Sir William Jenner, Mr. Simon, Professor Turner of Edinburgh, Dr. Robert McDonnell of Dublin, and Professor Huxley, who is certainly much more a scientist than a medical man, though he is a qualified practitioner, and does take great interest in the education and well-being of the profession. The Commissioners state that they had inquired into all the matters committed to them for consideration; that they had held forty meetings; that they had called before them such persons as they judged necessary; had asked for and received from other persons, and from the general bodies before mentioned, written statements; had examined books, documents, papers, and records, the Acts of Parliaments specified to them, and the Bills relating to the subjects that have from time to time been submitted to Parliament with a view to legislation; and had had before them the evidence given before the Select Committee of the House of Commons appointed in 1879 and 1880 to consider Bills to amend the Medical Acts. The outcome of all this is now before us; and the Report of the Commission is certainly a rather remarkable document. It consists of twenty-seven pages, of which twelve only are occupied by the Report itself; while the remaining fifteen consist of seven Memoranda by six of the Commissioners, who dissent from parts of the Report—one by Mr. Simon; one by Mr. Simon and Professor Turner; one by Mr. Sclater-Booth; one by Professor Huxley; one by the Bishop of Peterborough; one by Professor Turner; and one by Mr. Bryce.

It will be observed that among the dissentients are laymen as well as professional men, and English as well as Scotch professors; and it must be admitted that this fact adds not a little to the weight and significance of their dissent, as this cannot with any fairness be ascribed to pre-existing prejudices. On account both of the position and the recognised ability of the dissentient members of the Commission and of the importance of the questions raised by them, the Memoranda referred to must detract not a little from the weight and value of the Report. We fully admit that it is an honest, earnest endeavour, after great labour and consideration, to overcome the difficulties and smooth over the differences that have as yet made wreck of all attempts, since 1858, at what is called medical reform. But we cannot think that the endeavour has succeeded. It does not appear to us that the proposals of the Commissioners will bring us in the least nearer to any successful legislation for the medical profession, and thereby secure for us what is on all grounds so devoutly desired—rest from agitation and uncertainty.

THE HARVEIAN ORATION.

In that quiet and contemplative mood which it is to be hoped all of us are able to indulge in from time to time, thinking over the wonderful experience of humanity which comes to us in our daily work, one can hardly fail to reckon among the events of a bygone week the annually recurring Oration in memory and in honour of Harvey. Has it been better than usual, or worse than usual? Has a new line been struck out,

or has everything been going on in the same old ruts which used to render the Oration a terror to those who were bound to attend and listen to it, and a weariness of the flesh to those who were seduced for a like end. Recently we have had no great reason to complain, for since the Oration has been delivered in our homely English tongue men have been able more easily to lay their views before the assembly, and those who have been chosen to fill the post have always been men who had got something to say worth hearing. Dr. George Johnson, the Orator for this year, has been exceptionally fortunate; he has taken upon himself a most patriotic and, at the same time, a somewhat easy task. Easy, did we say? Yes; easy to a man like Dr. Johnson, who has shown himself, by the way in which he has carried it out, not only a consummate Latinist, a good translator of Italian, but a master of ancient medical learning. These things may be scoffed and jeered at by those of the modern time who work only for results, and to whom an imperfect acquaintance with scientific German is of more value than an intimate knowledge of the classics. But we are old-fashioned enough to relish some of this scholarship, which was wont to be the pride of our profession, and we are not at all sorry that the modern daily newspaper has not driven everything in the shape of what used to be called learning out of our midst.

Dr. George Johnson took upon himself the task of clearing up Harvey's claim to be the real discoverer of what we now understand as the circulation of the blood, recently attacked in a very curious fashion by the Italians. And this brings us to our second current of thought. Why should Italians thus seek to claim for an Italian the honour of what is commonly acknowledged to be the greatest of physiological discoveries? We can hardly help associating it with much that is peculiar in the social, religious, and political position of Italy. Begotten of struggles among other nations, Italy has, with little effort on her own part, become a European power, whilst she flatters herself that by her own genius and manly vigour alone she vanquished the hated *Tedeschi*. So in other matters, everything past, present, and to come, which has had or can have the slightest connexion with Italy, has been done by Italians for Italy. Thus it is with regard to the circulation of the blood. Harvey studied in Italy; there he learned the mystery of the circulation of the blood, but, say certain Italian gentlemen, kept it carefully hid in his own mind until everyone was dead that could denounce his imposture; that then, and then only, did he make public his so-called discovery. This was immediately adopted with acclamation by the Royal College of Physicians of London, who at that time knew, or have since learned, that Harvey was no better than he should be in the business; and they have since kept up the joke for the sake of meeting once a year and having a drinking bout over it. Such, at least, seems to be the story told by Dr. Ceradini, Professor of Physiology in the University of Genoa, and apparently devoutly believed by all true Italians, perhaps to compensate for want of belief in other and—what we are accustomed to think—more important matters.

But who was this gentleman of whom the Italians boast as the real discoverer of the circulation of the blood, and whose discovery Harvey, they say, stole? He was Cæsalpinus—or Cesalpino, as Dr. Johnson prefers to call him—who lived a little before and during the time of Fabricius, Harvey's teacher of anatomy at Padua. Fabricius, say Ceradini and Co., must have known of Cesalpino's discovery, and from him Harvey must have heard of it. Fortunately in one way, everyone, including Ceradini himself, admits that Fabricius had no notion of the circulation in our sense; and if he had not, living at the same time as Cesalpino, and, after him, being likewise out and away the first anatomist of his time, who was likely to know it? and if Fabricius did not know it, how could he teach it?

But this is only *à priori* reasoning—strong though it be. Let us turn to the only means we have of deciding the question; for since the evidence which can be deduced from the contemporary writings of Fabricius and others is against the Italian theory, we must perforce fall back on the writings of Cæsalpinus himself. These, as Dr. George Johnson has by ample quotation shown, are quite as convincing as need be. They show absolutely that the man had not the slightest notion of the passage of the blood in a twofold course through the body as we understand it. There is a talk of heat and cold, of the brain as a cooling organ, of the windpipe as acting in the same way, of thick and thin blood, of vital spirits, and of the direct connexion of nerves with the heart through the vessels with which they were immediately continuous, of to-and-fro currents in the aorta and in the cava. Can anyone accept the view that a man making use of such terms, *i.e.*, mental images of his actual knowledge, could have a conception of the circulation of the blood as it revealed itself to Harvey's careful investigations?

In point of fact, Cæsalpinus's claim to the discovery of the circulation, as formulated by his Italian advocates, rests on the use of certain words, and a knowledge common at that time, as since, to the most uninstructed. In his writings Cesalpinus makes use of these two words—*circulatio* and *capillamenta*; whilst he speaks of it as a well-known fact to blood-letters, that when pressure is made on a vein a swelling is formed on the distal side. To finish with this last argument at once, we may say that this was a matter of common knowledge not peculiar to Cæsalpinus, and that Cæsalpinus's explanation of it, if at all intelligible, is based on a to-and-fro current in the cava.

But as regards the word *circulatio*, it is clear that the meaning of a word as used by a given author must be derived from the fashion with which it is applied in connexion with other words, and with its use in other portions of his writings. In our own language we are only too familiar with the use of the same word in different senses, and it is most dangerous to argue from a single instance to a generalisation. Even, therefore, supposing the word *circulatio* is used by Cæsalpinus in reference to heavenly bodies wheeling in their orbits, it by no means follows that it is used at all times in his writings in the same way. It is evident that Cæsalpinus was acquainted with the mode of passage of the blood through the lungs from the right to the left side of the heart, whilst the ordinary belief was that a portion, if not the whole, of the blood passed through the ventricular septum; and we would submit that the term *circulatio*, applied by Cæsalpinus to the pulmonary circulation, was only intended to indicate the roundabout in contradistinction to the direct course the blood was supposed to adopt. There is no evidence whatever that he entertained the same idea with regard to circulation throughout the body.

And as to the term *capillamenta*, has anyone ever tried to throw himself back to the time when men knew nothing of the circulation of the blood? It is not easy, and words are far too apt to become our masters when speaking of this and many other things. The idea of a capillary vessel is easy now, and we cannot well get rid of it; but Harvey could not go beyond porosities. It is plain that the use of any term signifying the same thing as our capillaries was impossible to Cæsalpinus, with the knowledge he possessed and expressed in his writings. Our Italian friends try to prove too much. If Cæsalpinus's knowledge of the circulation was so intimate that he could speak of capillaries in our sense, it is impossible that his contemporaries could have been so far behind him. Capillaries were

not *known* till the days of Malpighi. Before his time the term could only be figurative, and its use proves nothing. In fact, the *capillamenta* of Cesalpinus were nerve-fibres, which that anatomist said were hollow and continuous with the bloodvessels, but receiving only vital spirits.

Dr. Johnson has done a good work, and we heartily congratulate him on the way in which he has done it.

PROPOSALS OF THE MEDICAL ACTS COMMISSION.

It is not possible to give our readers, this week, a full and detailed account of the Report issued by the Royal Commission on the Medical Acts, much less to comment much on its value, or on the significance of the Memoranda by dissentient members of the Commission. We must, for the present, content ourselves with placing before them as briefly as possible the more important parts of the Report, reserving criticism, and consideration of the attached Memoranda, to a future opportunity.

First, the Report deals with the "Grant of Medical Licences." The Commissioners admit that the large majority of the nineteen licensing existing authorities have shown a praiseworthy readiness to introduce improvements in their examinations, whether originated by themselves or suggested by the General Medical Council; but say that, on the other hand, not only do the diplomas and degrees of these medical authorities imply very different standards of skill and knowledge, but that in some cases the possession of a diploma affords no guarantee that the possessor of it has a competent knowledge of medicine, surgery, and midwifery. They inquire into the causes of this state of things, and consider various ways that have been proposed for preserving the present system of licensing, while reforming it so as to remove all its defects and shortcomings; and, holding the opinion that the possession of a licence ought to be conclusive evidence of sufficient proficiency in medicine, surgery, and midwifery, they arrive at the conclusion that such a standard of proficiency can only be insured by reducing the number of licensing authorities. In order to give practical effect to this conclusion, the Commissioners propose a kind of modified and enlarged conjoint-scheme for supervising medical education and conducting examinations by means of divisional boards subject to the control of the Medical Council. In each of the three divisions of the United Kingdom there is to be a divisional board, representing all the medical authorities of the division; the right of admitting to the Medical Register, and a general control over the proceedings of the divisional boards, is to vest in the Medical Council; and, subject to such control, each divisional board is to conduct, in its own division, the examinations for licence. These boards are to be very important and powerful bodies, as is shown by the detailed proposals of the Commission with regard to them:—"1. In each division of the United Kingdom a divisional board shall be appointed, whose certificate shall be necessary for admission to the Medical Register. 2. Each divisional board shall contain one or more delegates of each chartered university and medical corporation, whether now existing or hereafter to be created." The number and proportion of such delegates is not even hinted at; it is to "be fixed in the first instance by Parliament, due regard being had to the special claims of particular universities and corporations, as for instance, in Scotland, the Universities of Edinburgh, Glasgow, and Aberdeen, and in England, the Colleges of Physicians and Surgeons"; *i.e.*, the numerical representation of each medical authority on a divisional board shall bear some proportion to its importance as an educational or examining body, or both. Provision is to be made for a decennial revision of the allotment of members on each board by the Medical Council. The duties and functions of each divisional board are to be—1. "To appoint a certain number of members of the Medical Council." This is really a new idea, and the credit of it—what that may amount to—belongs entirely to the Royal Commission. But to resume the statements of the functions and duties of a divisional board. "2. To prepare regulations for a course of medical study and rules for examination, so far as may be necessary to secure the requirements and the standard prescribed by the Medical Council. 3. To nominate from time to time the medical educational bodies, whose certificate shall be accepted as to sufficiency of education; and from time to time to expunge, when desirable, any so nominated. 4. To take all necessary steps, by inquiry or otherwise, to ascertain the sufficiency of the education given in each medical school in the division. 5. To appoint the examiners for the divisional board examinations, and to supervise those examinations. 6. To visit from time to time any separate professional examinations conducted in the division which are accepted by the Medical Council. 7. To take such cognisance as may be necessary of preliminary examinations, and to keep a register of the medical students in the division. 8. To receive and act upon the reports of the examiners, and to report, after each examination, the results thereof to the Medical Council. 9. To make an annual report of their proceedings to the Council." All proposals for regulations should proceed, the Commissioners think, in the first instance from the divisional boards, but always subject to the subsequent approval of the Medical Council.

Part II. of the Report deals with the General Medical Council. It is admitted as being clearly proved that this body has rendered valuable services to the profession and to the public, and it is proposed that it shall be the one supreme controlling authority in regard to medical licensing, that it shall in future be styled the Medical Council (the divisional boards taking the place of the branch councils), and that larger powers shall be entrusted to it. It is proposed that the Medical Council shall consist of eighteen members only; of whom six shall be nominated by the Crown, two elected by the registered members of the medical profession resident in England, one by the registered members resident in Scotland and in Ireland respectively, four by the English divisional board, and two by the Scotch and Irish divisional boards respectively. The Commissioners are of opinion that the Crown ought to make its selection on the ground of fitness alone, irrespective of nationality; and they suggest that one or two distinguished persons, not members of the medical profession, might with advantage be appointed. The Medical Council is to be the sole licensing authority. It is proposed that all the members of the Council shall be elected for a term of five years, and eligible for re-election; and that they shall annually elect from among their own number a president, who shall be eligible for re-election. The Medical Council will exercise a general control over everything relating to medical licensing; and it will be in its power to inform the divisional boards with regard to such conditions of education and examination as ought in its opinion to be of universal obligation throughout the United Kingdom; and, when the proposals of the board are submitted for approval, the Council will have the power of varying them. But the regulations are to originate with the divisional boards, and these will be the executive bodies for administration. The Commissioners are of opinion that the regulations for courses of study should be only a general outline of what is necessary, and that it would be a mistake to introduce absolute uniformity into medical education.

As to "courses of examination," the Commissioners have not inquired minutely into the examinations of the present

licensing bodies, but they have thought it right to state there was "a notable concurrence of opinion among the witnesses that the examinations of the Apothecaries' Societies have not been satisfactory, and opinions to the same effect have been expressed with regard to the Edinburgh College of Surgeons, and the Glasgow Faculty of Physicians and Surgeons." They do not enter into any detail with reference to the examinations to be held by the divisional boards; but they make some general recommendations. During the course of medical study, professional examinations, other than the final examinations, ought, they think, to be held by examiners of the divisional boards; but power should be given to the Medical Council to accept the results of similar professional examinations, conducted by the separate medical authorities, on being satisfied as to the standard of efficiency of such examinations. The final examination in systematic and clinical medicine and surgery and in midwifery ought, however, in their opinion, to be in every case conducted by the examiners of the divisional boards. They consider that the Medical Council should take steps to insure that equality of value should be assigned to the same subjects in the examinations of all the divisional boards, and that the standard for passing in each subject, and in the whole examination, should be the same. Finally, as to the examination fees to be charged by the divisional boards, it is considered that they "should be of such amount as will be sufficient to cover the cost of the examinations and the other expenses of the divisional board, and *also to provide the sum required to compensate the medical authorities, or such of them as may be entitled to compensation for any pecuniary losses they may hereafter sustain by reason of the abolition of their privilege of conferring a licence to practise.*" (The italics are our own.) This provision for compensation may be a politic one, with the view of, perhaps, discounting the opposition of some of the medical authorities; and it may be said to follow the division of fees in the English conjoint scheme, but it would most probably, we think, excite hostility in the Legislature, as making candidates pay for matters with which they had no concern.

It is not proposed to interfere with the present powers of the universities or corporations to confer their titles, with or without examination; but the Commissioners think a discretion should be given to the Medical Council to permit these titles to be registered or not, as they see fit. The Commissioners attach the greatest possible value to higher professional titles, and say they cannot too strongly deprecate any interference with the examinations of the medical authorities for their higher titles. They hope and believe that, though the certificate of a divisional board will of itself confer a right to registration, medical men will not be contented with a bare licence to practise, and that they will continue to seek to belong to one or more of the universities or medical corporations. They consider it undesirable to attempt to prevent unregistered persons from practising, but think they should be prevented from representing themselves as being registered, or from assuming titles that would lead the public to believe that they are regular medical men. And they consider that prosecutions for offences under the Medical Acts should be undertaken in England by the Public Prosecutor, or by anybody with the assent of the Attorney-General; and under like conditions in Scotland and in Ireland.

As respects the medical women question, the Report says: "If divisional boards be appointed as we have recommended, it appears to us only fair and reasonable that women should be admitted to the examinations on the same terms as men, and should, if successful, be entitled to registration."

The Report contains, we think, nothing else that need be mentioned in this first notice of it, excepting one of the recommendations for insuring the correctness of the Medical Register. The Commissioners think that "there would be no hardship in requiring every registered practitioner to send his address and correct designation to the Registrar annually, and that, in the event of his failing to do so, and also failing for six months to answer a letter from the Registrar, the latter should be empowered to remove his name from the Register. It should, however, also be provided that the Registrar should be entrusted with the power to restore a name so erased to the Register on obtaining clear evidence that the person so erased was alive and in practice, and on receiving the fee payable for such restoration."

THE WEEK.

TOPICS OF THE DAY.

A PLEA for softening the water-supply of towns before it is distributed has been put forward by Mr. J. F. Bateman, a well-known engineer. He states that he has always been an advocate for the supply of soft water, from a conviction that, while it is perfectly wholesome for dietetic purposes, it is much more economical than hard water for all other purposes to which it might be applied. It is not often that an exact computation can be made upon the economy resulting from the introduction of soft water where hard water had been previously used, but in Glasgow circumstances were favourable for such a comparison. There the soft water of Loch Katrine was substituted for the comparatively hard water of the Clyde. The Loch Katrine water was delivered at about one degree of hardness, and the Clyde water on an average of about eight degrees, according to Dr. Clark's scale. The saving effected in domestic consumption by the use of the former was equal to all the rates which were paid by the inhabitants for such supply of water, and the saving in soap for the purposes of trade was also very large. The saving on domestic consumption alone was equal to two shillings per head per annum. In his own house, where he substituted soft water for hard, Mr. Bateman found the saving in soap alone was over five shillings per head per annum. The saving in London if soft water of, say, two degrees of hardness were introduced in place of the present supply, would be at least 2s. 6d. per head per annum; therefore, as a mere matter of economy, Mr. Bateman considers that it is of great importance to the inhabitants of a district to have soft water instead of hard.

Dr. Sweeting, late Medical Superintendent of the District Small-pox Hospital at Fulham, in the course of his report upon vaccination, which has been adopted by the Managers of the Metropolitan Asylums Board, makes the following suggestions:—The substitution of the health for the parochial authority as administrators of vaccination; an increased staff of vaccination officers in connexion with the sanitary authorities, and a more systematic method of house-inquiry, in non-epidemic as well as epidemic years; that the birth of no child should be registered unless the applicant produces a certificate of successful vaccination, the time now allowed for registration being extended for this purpose; and restriction of the performance of vaccination to public vaccinators, who in all cases should have had special training for the work, and should be officials of the sanitary staff.

At the last meeting of the Metropolitan Board of Works, the Solicitor's report of the progress of the Shadwell Fish Market Bill through Parliament was discussed. The Lords' amendment, enabling the Corporation to purchase the market within a certain period, or to obtain compensation for loss of tolls in Billingsgate, was generally condemned. One member hoped that the voice of that Board would be heard in inducing the House of Lords to undo that which, in their unwisdom,

they had done; and another trusted that some Parliamentary representative of the Board would do his best to influence the House of Commons in rejecting the unfortunate and dangerous clauses introduced by the Lords. Mr. Runtz suggested that the Board should present a petition to the House of Commons, drawing attention to the clauses, and asking them to recommit the Bill. But Sir J. McGarel Hogg, the Chairman, pointed out that this suggestion could not be carried out; and eventually it was decided to refer the question to the Works Committee for further consideration.

General satisfaction will be felt by the announcement that a Royal Commission has been appointed to inquire into the state of the river Thames. Possibly we may now arrive at some accurate conclusion as to whether our great stream is in the dangerous condition described by the Thames Conservancy Board, or, as contended by the Metropolitan Board of Works, in the normal condition as to pollution. The Commissioners nominated by Her Majesty are Baron Bramwell, Sir John Coode, Alexander William Williamson, F.R.S., Francis S. B. F. de Chaumont, M.D., Professor at the Army Medical School, Netley; Thomas Stevenson, M.D., and Mr. James Abernethy, F.R.S. Their instructions are to inquire into and report upon the system under which sewage is discharged into the Thames by the Metropolitan Board of Works, whether any evil effects result therefrom, and, if so, what measures can be applied for remedying or preventing the same. Mr. William Pole, F.R.S., is appointed Secretary to the Commissioners. The Commission is a strong and well-selected one.

At the recent dinner held at Willis's Rooms in aid of the funds of the West London Hospital, Hammersmith-road, the chairman, Viscount Enfield, in his appeal for the charity, said that from a dispensary, in the year 1860 the institution became a general hospital. In 1862 there were eighty-five in-patients; in 1871, 335 were admitted; and last year the number was 611. In the twenty years during which the Hospital had been at work 7367 in-patients had been received, and 347,286 persons had been attended as out-patients. During that time, unlike many rich hospitals, it had not received any special or extraordinary legacies, for within the twenty-six years only £16,900 had been received under that head. It was hoped, if funds were forthcoming, to increase this year the number of in-patients to 100, which, with the cost of building and furniture, would amount to £4900, and towards that sum £3700 had already been subscribed, leaving a deficit of £900. He concluded with an earnest appeal to the company to contribute liberally upon this occasion, and before the end of the entertainment subscriptions to the amount of over £900 were announced by the Secretary.

The Chancellor of the Diocese of London, Dr. Tristram, Q.C., last week concluded an inquiry into the application which had been addressed to the Court for an authority to erect a mortuary, and to convert the old burial-ground of St. John the Evangelist, in Horseferry-road, into a flower-garden. Mr. Brunskill appeared in support of the application, which was made on behalf of the Ven. Dr. Jennings, the rector, the Duke of Westminster, and others. It was stated that a site had been obtained for the mortuary at the stoneyard, and there was no objection to converting the closed burial-ground into a garden. The population of the place numbered 30,000, including 5000 school-children. The expense would be about £1000, of which the Duke of Westminster had promised to contribute one-half, the remainder being found by the other applicants. Dr. Tristram said the Duke of Westminster had acted with great liberality in the matter, and he had much pleasure in granting the faculty as prayed.

At a recent meeting of the Common Council, Mr. Alderman Cotton presented a petition from the Paddington-park Committee, praying that the Corporation would use their best efforts to further promote the Paddington-park scheme. This was supported by Mr. Fawcett, M.P., and many others. It was stated in the memorial that the ground would cost about £200,000. In reply to questions, Mr. Fawcett stated that the amount of private subscriptions already promised was £30,000, and the Board of Works had agreed to assist the scheme to the extent of £1000 per acre. He presumed that the Board, having promised this sum to a private committee, would have no objection to hand the money to such a responsible body as the Corporation of London. It was certain, however, that if the Corporation took up the matter, the subscriptions already promised would be largely increased, and others would be received, and he did not hesitate to say that where they now had £1, they would get £2. This would be the natural effect of its being known that the Corporation had decided to take up the matter, and the remembrance of their successful efforts in regard to Epping Forest would give the public some assurance that they would similarly conduct this matter. It was pointed out that the land, being within the metropolitan area, the Corporation could not take the matter up without the sanction of Parliament, the Government, and the Metropolitan Board; to which Mr. Fawcett replied that of course he could not pledge the Government, but whatever influence he and Mr. Shaw-Lefevre could exert in the matter should be gladly used. Mr. Fawcett further said that about £90,000 was required to make up the amount of the purchase-money. On the motion of Mr. Alderman Cotton the petition was referred to the Coal, Corn, and Finance Committee for consideration, Mr. Bedford stating that the Metropolitan Board of Works would not stand in the way of action by the Corporation.

The usual fortnightly meeting of the Managers of the Metropolitan Asylums Board was held on Saturday last. The return of the number of fever patients in the several hospitals of the Managers showed that the total for the fortnight ended June 23 was 325, as compared with 324 for the preceding period. The number of small-pox patients remaining under treatment for the fortnight ended June 23 was 246, or a decrease of eighteen on the total for the previous fortnight. Sir E. H. Currie referred to the case of neglect on the part of the Guy's Hospital authorities in allowing a man who was suffering from small-pox to proceed through the streets from the Hospital to the Stockwell Asylum, and asked if any reply had been received from the Hospital officials. It appeared that an answer had been received, and Sir E. H. Currie urged that the subject should not be allowed to drop, as there had never been a worse case. The Chairman suggested, and it was agreed, that the matter should be allowed to stand over until the next meeting, when, if nothing should have been heard from the Hospital authorities, they should be again written to. Meanwhile, Mr. Talbot, one of the members for the University of Oxford, has asked the President of the Local Government Board whether his attention has been directed to the matter; and has been informed by Mr. Dodson that the Local Government Board are "now in communication with the authorities of Guy's Hospital upon the subject." The matter occurred on May 17, but Mr. Dodson had not yet been able to learn how the small-pox patient came to be conveyed to Stockwell in a public omnibus.

Her Royal Highness the Princess of Wales, and the Princesses Louise, Victoria, and Maude, attended by Miss Knollys and the Rev. Teignmouth Shore, paid a visit to the Royal Hospital for Women and Children, Waterloo-bridge-

road, on Sunday afternoon last, after the flower service at Berkeley Chapel. Her Royal Highness made a minute inspection of all the wards, and visited each cot in turn, and, assisted by the Princesses, presented both flowers and fruit to each patient, adding a few kindly words. Her Royal Highness was pleased to give permission for the central ward to be called the "Alexandra Ward," in memory of her visit, with which she expressed much satisfaction.

ROYALTY AT HASTINGS AND ST. LEONARDS.

On Monday last the Prince and Princess of Wales visited Hastings and St. Leonards, for the purpose of opening a public park in the new suburbs of the former place, and a Convalescent Home for Poor Children at the latter. The park in question lies to the north of the town, and extends for about a mile to the west of the St. Helen's railway-arch. It includes the little valleys of Buck's Hole, in which is a chalybeate spring, and Shornden and Newgate Wood. The area is about seventy-seven acres, and the total cost to the town has been £35,000. After the usual formalities, the Prince of Wales declared the park open, and named it the Alexandra Park. At the Convalescent Home, their Royal Highnesses were received by the honorary officers of the institution. The Treasurer read an address, in which a brief account was given of the Home since it was founded by Mrs. Newton, showing that it had now existed for thirteen years, during which time upwards of 2000 children had benefited from its hospitable shelter and care. The new building has been erected on a site granted by the owner of the Eversfield Estate, at a nominal rent of £1 per annum, for a period of 500 years, and is calculated to accommodate upwards of sixty children. A short dedicatory service was read by the Bishop of Chichester, and the Home was formally opened by the Princess of Wales. The Royal party were afterwards conducted through some of the wards, and expressed their satisfaction with the general arrangements of the Home.

HOSPITAL SUNDAY COLLECTIONS.

According to the latest report, the Hospital Sunday Fund now amounts to over £20,750. Among the sums most recently paid in were the following:—All Saints, Woodford Wells, £25; Stepney Meeting House, £22 13s.; St. Mark, Notting Hill, £20; Brockley-road Baptist Chapel, £33 12s.; Christ Church, Kensington, £123; St. Thomas, Regent-street, £24 15s.; Streatham Parish Church, £70; Christ Church, Ealing, £40; St. Mary the Virgin, Primrose Hill, £20 15s.; Theistic Church (Rev. C. Voysey), £37 5s.; St. Luke, New Kentish Town, £26 3s.; Kentish Town Congregational Church, £30 4s.; box outside the Mansion House, £4 4s.

DISCREPANCIES IN ANALYSES UNDER THE FOOD AND DRUGS ACT.

In a communication addressed to a contemporary, Mr. A. Wynter Blyth, the Medical Officer of Health and Public Analyst for the parish of St. Marylebone, calls attention to the anomalous and difficult position in which every analyst is at present placed by the working of the 22nd section of the Sale of Food and Drugs Act. This section authorises the justices, in any case in which a certificate is disputed, to direct a second analysis by the Inland Revenue chemists. To this Mr. Blyth does not object, but he contends that it was never intended that such reference should be final, and he points out that Mr. Sclater-Booth, who had charge of the Bill, declared the intention to be that in case the analysts differed, they should both be subject to examination, and have the opportunity of justifying their opinions. The majority of the public analysts looked upon this reference with great disfavour, since they felt that it would be referring from those who had greatly advanced the science of food-analysis to gentlemen who had paid no special attention to that branch of chemistry, save and except in the matter of certain excisable articles. In 1874 the public analysts formed themselves into a society, and framed certain "definitions" and "limits" for the guidance of the members. Neither these definitions nor limits have received legal sanction, but they are entitled to this respect. Mr. Blyth thinks, that they emanated from the only body of men who were entitled at that time to speak with any authority in the matter. They were adopted unanimously by the analysts, and independent research has convinced Mr. Blyth of their general accuracy and fairness. Mr. Blyth proceeds to illustrate the discrepancies which now exist between the standards adopted by the public analysts and the Inland Revenue chemists to constitute purity or adulteration in milk and butter; and he maintains that the consequence of the utter variance of opinion upon identical results is having the effect of discrediting public analysts in particular and chemical investigation generally. Further, he asserts that it is driving pure milk and butter out of the market, and he believes that there was never at any time more adulteration of these articles, at least so far as certain portions of the metropolis are concerned. What is required, Mr. Blyth thinks, is an amendment of the Act, laying down and defining with precision what is, and what is not, an adulterated article—and this more especially with regard to milk and butter; and various details with regard to the manner and working of reference analyses are also, he holds, in urgent need of revision.

ACUTE DILATATION OF THE HEART.

Dr. M. Heitler has, in recent numbers of the *Wiener Medicinische Wochenschrift*, touched on a subject of great importance. A sudden or rapid dilatation of the heart does certainly occur under many circumstances; but we think it is necessary to draw a distinction between different forms. There is that which happens in connexion with many acute exhausting diseases, such as puerperal fever, typhoid fever, pneumonia, and so forth; and of this nature, or something akin to it, is probably the dilatation which is met with in chronic anæmia. In all these cases there would seem to be undoubted change in the structure of the cardiac muscular walls. But the question is, whether we cannot have a dilatation of even more rapid arrival, and which, consequently, can hardly depend on universal softening of the heart's musculature; whether, in fact, "idiopathic dilatation" can occur. Dr. Heitler seems to have observed cases which must come under this division. He talks very confidently of rapidly appearing and as rapidly disappearing enlargement. This he has demonstrated in chronic valvular disease. We are inclined to agree, and think that the remarkably sudden variations in the health of sufferers from chronic cardiac maladies may here find an efficient explanation. Truly acute dilatations of the heart are believed to occur in soldiers during campaigns, and in persons strenuously exerting themselves physically. Dr. Heitler has no experience of such cases. Some authors have taught that such rapid enlargements may ensue on nervous exhaustion, resulting from debauchery and sexual excess. It is possible also that the sensations and illness of amateur mountaineers may be due to the same state. To the symptoms, physical signs, and differential diagnosis of dilatation Dr. Heitler adds no new knowledge. In treatment great confidence is placed in digitalis. Further, Dr. Heitler believes that percussion, such as is practised in ordinary physical examination, is

capable of bringing about a diminution in the size of the heart. If such occurrenees do happen, then it would seem quite certain that we have to do with a reflex action; and inherently there is no improbability. Goltz long ago showed that the frog's heart could be stopped in diastole by tapping the epigastrium, and why should not a contraction be brought about in a reflex manner? Moreover, it may be that any external application whatsoever, such as mustard plasters, act in this manner. We have not yet got at the bottom of reflex actions as a mode of treatment, and we can heartily recommend our readers, if they have not already done so, to study Dr. Lauder Brunton's article on this subject. On so-called "idiopathie dilat tion" authors' beliefs are still conflicting. The subject has been treated very fully indeed by Seitz, who strongly urges the fact of its occurrence. Schrotter holds the opposite view (*vide* "Ziemssen's Cyclopædia").

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-fourth week of 1882, terminating June 15, was 1008 (554 males and 454 females), and among these there were from typhoid fever 43, small-pox 22, measles 25, scarlatina none, pertussis 2, diphtheria and croup 46, dysentery 1, erysipelas 8, and puerperal infections 6. There were also 52 deaths from tubercular and acute meningitis, 174 from phthisis, 19 from acute bronchitis, 57 from pneumonia, 92 from infantile athrepsia (27 of the infants having been wholly or partially suckled), and 34 violent deaths (28 males and 6 females). The number of deaths this week has been less than that of any of the four last weeks; measles, pertussis, diphtheria, and erysipelas having also furnished fewer deaths than last week. Typhoid fever has, however, increased from 36 to 43, and small-pox from 11 to 22. The hospitals, too, have received 78 cases of small-pox instead of 56, and 105 cases of typhoid fever instead of 92. The rate to which the mortality of the capital has descended this week (23·40 per 1000) is the lowest that has occurred this year—the ages two to five and above sixty having especially benefited by the amelioration in the sanitary condition. The deaths of children have diminished greatly in consequence of the decline of measles, diphtheria, pertussis, and scarlatina. Small-pox has increased, and has become a disease of adult age in consequence of the neglect of revaccination. The births for the week amounted to 1123, viz., 577 males (421 legitimate and 156 illegitimate) and 546 females (400 legitimate and 146 illegitimate): 89 infants were either born dead or died within twenty-four hours, viz., 51 males (33 legitimate and 18 illegitimate) and 38 females (25 legitimate and 13 illegitimate).

DEATHS FROM STARVATION (METROPOLIS).

A PARLIAMENTARY return, moved for by Mr. John Talbot, and prepared by the Home Office, has just been issued, showing the number of all the deaths in the metropolitan district in the year 1881, upon which a coroner's jury had given a verdict of death from starvation, or death accelerated by privation. The total number of such deaths during the year, returned by the coroners of the ten districts in the metropolis, was 54, of which no less than 17 occurred in the Central and Eastern divisions of Middlesex, namely, 24 in the former, and 23 in the latter. There were 4 cases in the Greenwich division, 1 each in the Western division of Middlesex, the Liberty of Westminster, and the City of London and Borough of Southwark district, whilst there were none in the Eastern division of Surrey, Duchy of Lancaster Liberty, Tower of London, or verge of the Royal Palaces districts. On an examination of the details of the cases, it appeared that 32 of the deceased were females, and 22 males, varying in age from the infant of six weeks to an old man of eighty-four years. In seven cases admission to the workhouse had been offered and refused, and five were in receipt of outdoor relief. It is only fair to state, however, that in only two or three cases, according to the terms of the verdict returned, is death attributed to actual starvation, but mostly the death is stated to have been caused by disease *accelerated* by privation, destitution, and exposure, and in twelve of these cases partly by intemperate habits also. In one instance an inquiry was held, resulting in the dismissal of the parish medical officer, the relieving officer being reprimanded.

FACTITIOUS CHEESE.

THE utilisation of the waste fat of butcher's meat in the manufactnre of imitation butter and cheese, which has recently beeu pursued with such success in America, raises questions of considerable difficulty from an eeonomic and moral, if not a legal, point of view. That they are not purely milk products, and are therefore not "of the nature or quality" which the purchaser has in his mind when he asks for cheese, is clear, but it by no means follows that because they ought not to be passed off for what they are not, their sale without evasion or disguise should not be permitted and even encouraged. If the man who can make two blades of grass grow where there was but one before deserves well of his fellows, surely so does he also who can make, from similar constituents, a better articlе of food than skim-milk cheese affords. The manufacture of the so-called "oleo-margarine" is now an important industry in the Northern States of America, about 20,000,000 lbs. being exported as such, and perhaps half as much passing the Customs as butter. It is a mixture of pure animal fats, melted out of suet at a low temperature, pressed and cooled. To convert it into "factory" butter, it is again melted, mixed, and then churned up with about 10 per cent. of milk, and, like much real butter, coloured or flavoured. Genuine cheeses differ much in composition, those made from entire milk containing far more fat, and being proportionately more valuable as food, than those from skim-milk, which consist of little else than casein; but the fats being those of milk, and comprising such unstable bodies as the glycerides of butyric, capric, and caproic acid, are excessively prone to changes which, within certain limits, are not unpleasant or injurious, and known as ripening. Skim-milk cheeses, on the other hand, are more stable; they are very slow in ripening, and never acquire a flavour comparable to that of a "Stilton." Now, factory cheese, if made from sound fat, and with a well-judged proportion of skim-milk, will differ little in composition or nutritive value from a good "double Gloucester." It will always remain mild, but will never, so far as we know, give rise to poisonous products. While chemists, as Dr. Voeleker, have shown the factitious cheese to be a pure, wholesome, and nourishing food, experts in the market have confessed their inability to distinguish it by appearance or taste from the best American dairy cheese. A large importation is inevitable, and a new food-supply is not to be repelled, only it is to be desired that dairy cheese and factory cheese should each be sold as such, and that the poor customer should have the benefit of the lower cost of the latter, instead of the retailer taking a double profit.

THE LOCAL TREATMENT OF DIPHTHERIA AND SCARLATINA WITH CHINOLIN.

IN some recent numbers of the *Berliner Klin. Wochenschr.*, Dr. Seifert, of Wurzburg, relates his experience of the application of a solution of chinolin to the tonsils and soft palate

in some twenty cases of diphtheria and diphtheritic scarlet fever in children and adults. Dr. Seifert prefers the alcoholic solution of pure chinolin to the watery solution of its tartrate or salicylate. Chinolin is insoluble in water, but freely soluble in alcohol, ether, and chloroform. His formula for local application is—chinolin pur. 5 grammes, alcohol 50 grammes, water 50 grammes. As a gargle: chinolin pur. 1 grammue, sp. vini rect. 50 grammes, ol. menth. pip. gtt. 2, water 500 grammes. The 5 per cent. solution was applied to the fauces and tonsils by means of a paint brush, or cotton-wool attached to a probe. The application was followed by a burning sensation in the throat, which was easily relieved by gargling iced water. In the milder cases one or two applications a day were used, in the more severe three times a day, or four applications at the most. These applications were followed by relief of both the local and general symptoms. The fauces were less painful, swallowing was more easily performed, the membrane became more easily detached, and the temperature fell. The cases so treated included four or five mild, uncomplicated cases of only a few days' duration; most of the other cases were of the more severe forms, accompanied by much swelling of the fauces, extensive membranous exudations, fœtid breath, external inflammation of the glands, and cellulitis. Several were complicated with endocarditis and nephritis, and two cases were scarlatinal, accompanied by membranous exudation on the fauces. The only fatal case was that of a syphilitic rickety child, aged one year and a half, who had contracted the disease in hospital. It must be remarked, however, that only three of the cases related were children, and it is a well-known fact that the most severe and fatal cases are found among this class.

MEDICAL PARLIAMENTARY AFFAIRS.

Sanitary Condition of Prisons.—In the House of Commons, on Monday, June 26, Mr. Trevelyan, in reply to Mr. Dickson's inquiry relative to the death of Captain Disney, Governor of Omagh Gaol, who lost his life through the defective sanitary condition of that prison, said that a gratuity of one year's salary, viz., £200, would be granted to the widow. Mr. T. Dickson, considering the compensation as "utterly inadequate," would revive the question when the estimates came on for discussion.

Pleuro-pneumonia.—Mr. Mundella, in reply to Mr. M. Scott, inquiring relative to the outbreak of this disease at Preston, near Brighton, said that the Privy Council had decided not to stop the agricultural show. The local authorities have declared certain infected places, which include all the premises where the disease has appeared, but the parish of Preston has not been declared.

Vaccination.—Mr. Dodson, in reply to Mr. John Talbot said that a copy of the memorandum addressed by Dr. Sweeting to the Managers of the Metropolitan Asylums Board had been received by the Local Government Board, but it would not be consistent with the practice of the Board to present such a document with a view to its being printed and circulated at the public expense.

Precautions against Small-pox.—Mr. Talbot complained that a patient pronounced by the authorities of Guy's Hospital to be suffering from small-pox had been discharged therefrom, and that he had travelled in an omnibus to the Stockwell Fever Hospital. Mr. Dodson replied that he was in communication with the Hospital authorities on the subject, and he had not yet ascertained how the man came to be conveyed in a public conveyance.

On Tuesday, June 27, in the House of Lords, the Lunacy Regulation Amendment Bill was read a second time.

In the House of Commons, the Public Health (Fruit-pickers' Lodgings) Bill was reported, and subsequently read a second time without amendment.

H.R.H. THE DUKE OF CAMBRIDGE has kindly consented to distribute the prizes to the students of the London Hospital Medical College on Tuesday, July 18, at four o'clock.

FROM ABROAD.

DILATATION AND EFFACEMENT OF THE CERVIX DURING LABOUR.

PROF. DEPAUL, in a lecture delivered at the Hopital de la Clinique (*Gaz. des Hop.*, No. 29), observed that the questions which he was about to consider, the dilatation of the cervix, is one concerning the mechanism of which some confusion prevails. At the time when the first stage of labour is about to commence—that is, when the woman has reached the end of her pregnancy in a normal manner—the neck of the uterus, still retaining all its length, forms at the bottom of the vagina a kind of projecting nipple, measuring about one centimetre and a half. This is what is called the vaginal portion of the cervix, to distinguish it from the supra-vaginal portion. This is the condition in which the neck of the womb is usually found; and then, a little sooner or later—one, two, or three days before the labour—the first uterine contractions occur, which may be painless, although usually attended with moderate pain. These contractions determine the first change in the form of the cervix. In exceptional cases these early phenomena may take place a month before labour sets in.

This first change consists in the commencing effacement of the supra-vaginal portion, its internal orifice opening, the aperture gradually enlarging in such a manner that the effacement becoming more considerable, after a longer or shorter time there remains no more of the cervix than the external orifice. The internal orifice has disappeared, the cavity of the uterus becoming gradually larger by the addition of that of the cervix. At the bottom of the vagina there is then found a hole, which is generally very small, into which there would be some trouble to introduce the cut extremity of a pencil, and which is the sole representative of the cervix. In some instances, but rarely in this first period of labour, this aperture is larger. Although this is the mode of procedure generally admitted, in some works it is stated that dilatation of the cervix takes place from the external towards the internal orifice; but this is an erroneous view.

"The effacement of the cervix is a phenomenon which it is of great importance to verify. I have seen a woman in whom this first part of labour occurred at the eighth month, and then all was arrested; still, by taking certain precautions, she was able to go on to the full term, and the delivery terminated successfully at the ninth month. There are also cases in which, in consequence of a true distension of the uterus—as, for example, through dropsy of the amnios,—the cervix may become effaced without any uterine contraction having yet taken place. In cases of anomalous distension of this kind I have been able sometimes to perceive, through the transparence of the membranes, the hair of the child's head within the cavity of the uterus; but this is not what we mean, properly speaking, by dilatation of the cervix. In this the external orifice opens the last; but the very large circle which this then should present is not always produced with the same regularity. First of all, the progress of the dilatation is very variable, being either slow or rapid, this first stage being, with some exceptions, accomplished more quickly in multiparæ than in primiparæ. If the mean duration of labour in primiparæ is about fifteen hours, the period of dilatation will usually require from ten to twelve hours for its completion: and although this dilatation has sometimes been known to occur in two hours, I may assure you that that is a very rare circumstance. In multiparæ the duration of labour is also less, because the genital parts are less resistant to distension for the passage of the child than in primiparæ. As to the habitual form which the orifice of the dilated cervix assumes, this varies according to many circumstances. During the first labour of a young woman twenty years of age we may find at the commencement of labour a very small orifice, enlarging progressively and remaining circular: and then, in proportion as the dilatation increases, becoming oval, with the large end of the oval turned backwards and the small end forwards. How is this to be explained? It has been said to depend upon the position of the head of the child, the frontal region of which is more extensive than the occipital. That is possible; but may there not be some anatomical condition present, such as a greater laxity of the

posterior part of the cervix? Sometimes the aperture is almost elliptical, and especially is this the case in the presentation of the shoulder or certain parts of the pelvic extremities. So also in women affected with contraction of the pelvis, the aperture is larger transversely than from behind forwards. We must also, in considering the differences of the form of the orifice, take into account the pathological conditions that may be present. Thus, cancer of the anterior lip of the cervix, occurring in a pregnant woman, will render the dilatation irregular and difficult, the healthy portion then having to become enormously dilated in order to compensate for the deficiency of laxity of the neoplastic portion. In these cases the orifice may affect a triangular or a crescentic form, accordingly as the cancer is more or less advanced. At other times we may meet with a strictured state of cervix, independently of any lesion, as, for example, a spasmodic or other form of stricture independent of any organic affection. Finally, there are cases in which we can find no orifice whatever, this having become obliterated. The diagnosis then becomes most difficult, for in vain may we search—nothing can be found,—and we are reduced to make a *débridement* or practise an aperture, an operation which is always somewhat dangerous. Sometimes, again, the cervix is no longer in its place, having changed its direction, having been drawn to one side or the other, whether in consequence of a tumour of the pelvis or the abdomen, or of an extra-uterine pregnancy. In cases of deviation the orifice is usually pushed forwards; and these deviations sometimes give rise to very serious errors, leading to the belief in the absence of an orifice. This error I once committed myself in a case in which, taught by a previous case, I ought to have guarded against it. This former case occurred some years before at Lille, and related to a woman who had been in labour twenty-one days without being delivered. The orifice had deviated to near the pubic symphysis; and it sufficed as soon as I recognised its position to practise two small *débridements* to find the cervix opening like a pocket, the labour terminating by the birth of a child who had been dead for several days. The mother recovered very well. And yet, with the knowledge of this case, I at a later period fell into the error of mistaking a deviation of the cervix for an obliteration, which I treated as such by a small operation, to the consequences of which the patient succumbed in the course of two or three days.

PRURITUS OF THE VULVA AND ANUS.—Dr. Steele, of Denver, describing a new remedy for pruritus, says: "The remedy is sulphate of quinia rubbed up with only sufficient lard to hold it together. The nearer you get the full strength of the quinia, the more efficacious will it prove. Apply freely and thoroughly. It has proved a specific in my hands."—*New York Med. Record*, June 3.

KORONIKO: A NEW REMEDY FOR CHRONIC DYSENTERY.—Dr. J. Jardine, writing from Kiukiang, in the *Chinese Imperial Maritime Customs Medical Reports*, says that dysentery, acute and chronic, was very prevalent in that community during the autumn of 1880. Acute dysentery had generally become subacute or chronic before the patients applied at the hospitals, so that the chronic form had generally to be dealt with. "As everyone knows, these are the difficult cases to influence speedily by drugs, and with the Chinese a change of air or sea voyage is beside the question. In these cases I was induced to try koroniko, from the *Veronica parviflora*, which is largely used in New Zealand as a remedy in dysentery and diarrhœa, and some of the results exceeded my most sanguine expectations. Many who received the drug did not return to report themselves; but I have notes of three cases of chronic dysentery, varying in duration from six weeks to four years, and voiding from twenty to thirty motions containing blood and mucus daily. Fifteen doses of tincture of koroniko reduced them to one-half, after fifteen doses reduced them to three or four daily, and a third like quantity effected a complete cure. Judging from the few cases I have been able to follow, I augur a brilliant future for this remedy in the chronic forms of the disease."

TEMPERATURE OF DEEP MINES.—The *Phil. Med. Times*, April 22, quoting from the *Pacific Med. Jour.*, states that the temperature of the Comstock Lode is 50° at 100 feet depth, 81° at 1000 feet, 101 at 1500 feet, 111° at 2000 feet, and 121 at 2300 feet.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 24, 1882.

BIRTHS.

Births of Boys, 1267; Girls, 1131; Total, 2393.
Corrected weekly average in the 10 years 1872-81, 2542·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	750	637	1387
Weekly average of the ten years 1872-81, corrected to increased population ...	751·6	666·1	1417·7
Deaths of people aged 80 and upwards ...	...	...	43

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple, continued Fever.	Diarrhœa.
West	669333	...	12	11	3	15	...	1	...	6
North ...	905947	1	7	5	3	17	...	2	1	6
Central ...	252238	...	2	1	1	7	...	...	...	2
East	692738	...	11	11	5	19	...	2	1	7
South	1265927	8	30	8	7	27	1	2	...	11
Total	3816183	9	62	36	19	85	1	7	2	32

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·673 in.
Mean temperature	57·3°
Highest point of thermometer	72·0°
Lowest point of thermometer	46·0°
Mean dew-point temperature	51·7°
General direction of wind	S.W.
Whole amount of rain in the week	0·56 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 24, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending June 24	Deaths Registered during the week ending June 24	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2398	1387	18·6	72·0	46·0	57·3	14·09	0·56	1·42
Brighton	109595	56	45	21·4	70·8	47·0	57·7	14·28	0·52	1·32
Portsmouth ...	129816	76	36	14·5	...	...	...	...	...	...
Norwich	88821	50	22	12·9	...	...	...	...	...	...
Plymouth	74449	45	28	19·6	...	...	...	...	...	...
Bristol	210134	125	68	16·9	64·5	45·5	53·7	12·06	0·66	2·44
Wolverhampton ...	76756	59	24	16·3	68·0	44·4	53·0	11·67	1·41	3·58
Birmingham ...	408532	256	124	15·8	...	...	...	...	...	...
Leicester	126275	89	35	14·5	69·5	46·5	55·2	12·89	1·27	3·23
Nottingham ...	193573	126	74	19·9	71·7	46·0	55·9	13·28	1·45	3·68
Derby	76857	63	32	22·0	...	...	...	...	...	...
Birkenhead ...	86582	57	26	15·7	...	...	...	...	...	...
Liverpool	560377	418	272	25·3	...	...	...	...	...	...
Bolton	106767	79	49	23·9	69·5	45·1	51·3	10·73	2·02	5·13
Manchester ...	344211	231	180	27·6	...	...	...	...	...	...
Salford	184004	124	68	19·3	...	...	...	...	...	...
Oldham	115572	77	42	19·0	...	...	...	...	...	...
Blackburn	104483	74	38	17·6	...	...	...	...	...	...
Preston	97655	88	54	28·8	...	...	...	...	...	...
Huddersfield ...	83418	44	25	17·5	...	...	...	...	...	...
Halifax	74713	37	12	8·4	...	...	...	...	...	...
Bradford	206158	94	56	14·6	67·9	48·2	54·5	12·50	1·98	5·03
Leeds	315968	205	109	18·0	69·0	47·0	55·6	13·12	1·56	3·96
Sheffield	236516	196	92	20·5	70·0	46·0	55·2	12·89	1·78	4·52
Hull	158818	108	68	22·3	...	...	...	...	...	...
Sunderland	119055	104	54	23·7	...	...	...	...	...	...
Newcastle	147626	113	55	19·4	...	...	...	...	...	...
Cardiff	58724	54	21	12·6	...	...	...	...	...	...
For 28 towns ...	8469571	5444	3097	19·1	72·0	44·4	54·9	12·72	1·35	3·43
Edinburgh	232240	165	76	17·1	65·5	47·6	55·7	13·17	1·11	2·82
Glasgow	514048	383	247	25·1	...	...	...	...	...	...
Dublin	348203	212	155	23·2	63·4	40·9	54·6	12·56	0·88	2·18

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·67 in. The lowest reading was 29·45 in. on Sunday, and the highest 29·82 in. on Saturday.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the Trinity Term examination for the degree of Bachelor of Medicine (M.B.), held on Monday and Tuesday, June 12 and 13, the successful candidates passed in the following order of merit:—

James Chute, Thomas Robert Bradshaw, Benjamin Morgan Dockrell, William F. Law, William H. Bennett, Walter H. Lougheed, Michael McHugh, William F. Patten, John N. Seymour, John Armstrong, Charles St. S. Nason, William H. Allen, Joseph Bulfin, Vicars H. Fisher, George Lloyd-Apjohn, William A. Carte, Augustus M. Whitestone, Daniel Crowe, William H. Peard, Robert H. Fleming.

At the same examination the following senior candidate "*satis respondit*":—

A. Rice Oxley, B.A. Oxon., M.R.C.S. Eng., L.S.A.

At the Trinity Term examination for the degree of Bachelor of Surgery (B.Ch.), held on Monday and Tuesday, June 19 and 20, the successful candidates were arranged in the following order of merit:—

William H. Burke, James Chute, Benjamin M. Dockrell, Travers R. M. Smith, Walter H. Lougheed, William F. Patten, George Frederick Dean, John N. Seymour, William Francis Law, Chaworth L. Nolan, James S. Carson.

At the Trinity Term Examination for the degree of Master in Obstetrics (M.A.O.), one candidate was successful, viz.:—

Benjamin Morgan Dockrell.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on the 21st ult., viz.:—

Barnard, Alfred H. G., Putney, of the Middlesex Hospital.
Baudry, Alfred F., Brussels, of the Middlesex Hospital.
Blackman, Herbert G., Canonbury, of the Middlesex Hospital.
Curle, Arthur L., Hammersmith, of the Middlesex Hospital.
Harrison, Walter, Brighton, of the Middlesex Hospital.
Mathews, Arthur A., Bradford, of the Middlesex Hospital.
Mountford, Arthur H., Weymouth, of the Middlesex Hospital.
Read, Henry G., Finsbury-square, of St. Bartholomew's Hospital.
Slate, Alfred, Ockendon-road, N., of St. Bartholomew's Hospital.

The last-named gentleman was admitted a Member of the College, July 28, 1880. Only one candidate was rejected.

Dental Examination.—The following were the questions on Anatomy and Physiology, and on Surgery and Pathology, submitted to the candidates for the Licentiateship in Dental Surgery of the Royal College of Surgeons at the examination on the 19th ult., when it was requisite to answer at least one of the two questions in both subjects (from two to four o'clock), viz.:—Anatomy and Physiology.—1. Describe the palate-bone and its connexions. 2. Describe the branches of the third division of the fifth pair of nerves, and specify the structures to which they are distributed. Surgery and Pathology.—1. What is the process by which union of an incised wound is effected? How can this process be best promoted? 2. What do you understand by a dislocation of the jaw? What force produces it? How would you reduce it? The following were the questions on Dental Anatomy and Physiology, and on Dental Surgery and Pathology, submitted the same evening from five to eight o'clock, when the candidates were required to answer at least two out of the three questions in each department, viz.:—Dental Anatomy and Physiology.—1. Describe the positions of the crypts of the several permanent teeth and their relation to the roots of the temporary teeth at the age of six years. State what teeth, complete and incomplete, are found in the jaws at that period. 2. Give briefly the situation, function, and minute anatomy of the tissues named respectively Nasmyth's membrane, membrana preformativa, and membrana eboris. 3. Give the dental formulæ of man, old-world monkeys, and new-world monkeys. Which teeth of the typical mammalian dentition are absent in them? In what respects do the teeth of the higher apes differ from those of man? Dental Surgery and Pathology.—1. In a case of crowded teeth in a contracted arch, mention the points to which you would give attention in deciding between the extraction of teeth and the expansion of the arch. How would you effect the latter? 2. What is meant by impaction of teeth in the jaws? Which teeth are most frequently impacted? and why? 3. What are the causes of hæmorrhage following tooth-extraction? What methods of treatment are commonly pursued, and what are their respective advantages and disadvantages?

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 22:—

Bernard, Alfred G. Farquhar, Junction-road, Highgate.
Davies, Sidney, Training Hospital, Tottenham.
Fowler, Charles Owen, Hereford.
Oldfield, Frank, Camberwell.
Percy, George Victor, Teneriffe.
Payne, Henry, Ashton-under-Lyne.
Slater, Bruce John, Putney.
Wholey, Thomas, Gainsborough.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Hancock, Hu Ruskin, Charing-cross Hospital.
Sturges, Frank, Middlesex Hospital.
Waring, John Arkle, St. Bartholomew's Hospital.

APPOINTMENTS.

MORRIS, MALCOLM, F.R.C.S.—Surgeon to the Skin Department of St. Mary's Hospital, *vice* W. B. Cheadle, M.D., resigned.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Surgeon Percy Kinburn Cree has been placed on the retired list of his rank from the 19th inst.

BIRTHS.

CHEESMAN.—On May 28, at Wellington, near Cape Town, South Africa, the wife of George E. A. Cheesman, L.R.C.P., of a son.

CLARKE.—On May 25, at Somerset East, South Africa, the wife of Thomas Furze Clarke, M.R.C.S., of a daughter.

COGAN.—On June 24, at Springfield, Bury-road, Gosport, the wife of Surgeon-Major M. Cogan, A.M.D., of a son.

EVANS.—On June 22, at Harwich, Essex, the wife of Samuel Evans, L.R.C.P., of a son.

GIBBON.—On June 11, at the Station Hospital, Gosport, the wife of Surgeon-Major G. C. Gibbon, A.M.D., of a son.

JOHNSTON.—On June 20, at 2, Melbourne-street, Leicester, the wife of William Johnston, M.D., of a daughter.

MILSOME.—On June 19, at Addlestone, Surrey, the wife of J. R. Milsome, M.D., of a daughter.

VINCENT.—On June 20, at East Dereham, Norfolk, the wife of Henry Bird Vincent, M.R.C.S., of a son.

MARRIAGES.

CADELL—BOILEAU.—On June 21, at Notting Hill, Francis Cadell, M.B., F.R.C.S., of Edinburgh, to Mary Hamilton, daughter of the late Major-General A. Henry E. Boileau, Bengal Engineers.

CLARKE—DIAMOND.—On June 21, at Twickenham, Richard Ashmore, son of Captain George Henry Clarke, R.N., to Theresa, daughter of Hugh W. Diamond, M.D., F.S.A., of Twickenham House, Twickenham.

DAVISON—CARTER.—On May 16, at Corrales, Uruguay, South America, Francis V. Davison, M.D., to Hannah Carter, recently Lady Superintendent of the York County Hospital.

DON—BRANDE.—On June 22, at Fulborough, Arthur Gorbutt Don, M.R.C.S., L.R.C.P., of Sevenoaks, to Adeline Fanny, daughter of the Rev. W. T. C. Brande, rector of Burton-cum-Coates.

FISHER—DILLER.—On June 24, at Covent-garden, Frederick Alfred Fisher, L.R.C.P., M.R.C.S., of City-road, E.C., to Minnie, fourth daughter of Samuel Diller, Esq., of Harrington-street, N.W.

JOHNSON—BRAND.—On June 20, at Great Cornard, Suffolk, James Bovell Johnson, M.D., to Elizabeth Olive, daughter of the late Oliver Brand, Esq., of Great Cornard.

LANGDON—D'AUTEZ.—On June 15, at Gibraltar, Surgeon J. S. Langdon, A.M.D., to Lévantine, daughter of M. G. D'Autez, Esq., of Gibraltar.

MOORE—CAMPBELL.—On June 20, at Westminster, George Kenrick Moore, Lieutenant and Adjutant 1st Battalion 24th Regiment, to Annie McLeod, daughter of D. C. Campbell, M.D., of Warley, Essex.

DEATHS.

BAXTER, JAMES BAINBRIDGE, M.R.C.S., late Medical Officer in charge at the Sandheads, Calcutta, ten days after his arrival from India, on June 18, in his 68th year.

BENSLEY, CATHERINE, wife of Surgeon-Major E. C. Bensley, H.M.I. Army, at 3, Strathmore-gardens, Kensington, on June 20, in her 37th year.

COPE, WALTER H., M.R.C.S., at High Cross-street, Leicester, on June 19, aged 47.

DOUBLEDAY, EDWARD, L.R.C.P., M.R.C.S., of Dovecote House, Long Clawson, Leicestershire, on June 18, in his 85th year.

HARRIS, RICHARD, M.R.C.S., at High-street, Old Brentford, on June 25, aged 41.

REID, A. G., M.D., at Hankow, China, on June 20.

TAYLOR, JAMES, F.R.C.S., at Wargrave, Henley-on-Thames, on June 17, aged 67.

WILLCOX, CHARLES, M.R.C.S., of Southsea, and late of Wareham, Dorset, at Warminster, on June 23, aged 74.

VACANCIES.

BRADFORD INFIRMARY AND DISPENSARY.—House-Surgeon. Candidates must be registered medical and surgical practitioners, and not under twenty-eight years of age. Applications, stating age, with copies of recent testimonials as to moral character and professional ability, to be sent to the Secretary, William Maw, on or before July 3.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer. (*For particulars see Advertisement.*)

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—Assistant-Physician. (*For particulars see Advertisement.*)

GUEST HOSPITAL, DUDLEY.—Resident Medical Officer. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, and possess a registered qualification in medicine, and be unmarried. Applications, with testimonials, to be sent to the Secretary, E. Poole.

ROYAL UNITED HOSPITAL, BATH.—Resident Medical Officer. (*For particulars see Advertisement.*)

SUSSEX COUNTY HOSPITAL.—Assistant House-Surgeon. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Central London Sick Asylum District—Dr. Garman has resigned the office of Assistant Medical Officer at the Highgate Asylum; salary £100, and board and lodging.

Easingwold Union.—Mr. Bertrand Edgar de Lautour has resigned the Alne District: area 13,438; population 2367; salary £25 per annum.

Uppingham Union.—Dr. Arthur Vores has resigned the Hallaton District: area 7836; population 1032; salary £24 per annum.

APPOINTMENTS.

Bolton Union.—Thomas B. White, L.R.C.P. Edin., L.R.C.S. Edin., as Assistant Resident Medical Officer at the Workhouse.

Leeds Union.—Thomas P. Thomson, M.B., C.M. Aber., as Assistant Medical Officer at the Workhouse.

Plomesgate Union.—C. G. Symons, M.R.C.S. Eng., L.S.A., to the Earl Soham District.

Westmoreland.—James W. Montgomery, F.C.S., as Analyst for the County, *vice* L. Siebold, resigned.

APPOINTMENTS FOR THE WEEK.

July 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

3. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

5. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

OBSTETRICAL SOCIETY, 8 p.m. Specimens will be shown by Dr. Daly and others. Dr. Herman, "On the Relation of Backward Displacements of the Uterus to Dysmenorrhœa."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

7 *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

OPHTHALMOLOGICAL SOCIETY, 8½ p.m. Annual General Meeting for the Election of Officers, etc. Mr. Oglesby, "On Miners' Nystagmus." Messrs. Lang and W. A. Fitzgerald, (1) "On a Case of Homonymous Insular Scotomata"; (2) "On the Movements of the Eyelids in relation to the Movements of the Eyes." Dr. Brailey, "On the Tests of Vision for Service at Sea." Dr. Brailey will also show Charts for Educating the Colour-Sense, by Drs Joy Jeffries and Magnus. Mr. Rudall, "On Micrococci in Eyeball." Mr. Snell, "On Acute Glaucoma caused by Atropine and cured by Eserine." Card and Living Specimens at 8 p.m. Dr. Brailey—1. Peculiar Form of Cyclitis; 2. Detachment of Pars Ciliaris Retinæ. Dr. Stephen Mackenzie—Sections of Retinal Hæmorrhages. Mr. Lindsay Johnson—1. An Ophthalmoscope; 2. Apparatus for Adjusting Lenses. Mr. McHardy, "Sequel to Case of Black Cataract." Mr. Streatfeild—Living Specimen.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

Jos. Adolphus, Esq., Surgeon, Black River, Jamaica.—Letter and remittance received.

A New Cemetery, Eastbourne.—The Secretary of State has sanctioned the proposed site for the new cemetery at Westham submitted to him by the Local Burial Board, and four acres of ground will be at once enclosed for the purpose.

Sanitary Defects, Manchester.—The Superintendent reported to the last meeting of the Nuisance Committee of the corporation that from May 15 to June 10 the inspectors had served 1415 notices for the abatement of nuisances, bad drainage, etc.

Settled at last—The Dunse pollution case, which has been seven years in court, has now been settled by an arrangement, under which the Dunse Police Commissioners undertake to maintain the works as now existing, and to see after their proper working.

Open Spaces.—Lord Bradford has presented forty acres of land to the borough of Walsall, as a public recreation-ground.

Coroners' Juries.—At the Paddington Coroners' Court, a few days since, eighteen gentlemen had been summoned, but only six were present at the appointed time, and in the result several reporters acted as jurymen. One of the gentlemen summoned applied to be released on the ground that he was a clergyman. The coroner pointed out the only exemptions, but the clergyman was unable to claim any of them.

Violating the Factory Act.—A firm of cotton manufacturers at Great Harwood, Blackburn, have been mulcted in penalties amounting to £3317s. 6d. for employing twenty-five women during the dinner-hour. The inspector pressed for a penalty in each of the cases. He had more trouble at Great Harwood than with any other town in his district.

Trichinæ.—The French Assembly has rejected a Bill for facilitating the importation of foreign pork, because sufficient guarantees were not provided against the admission of meat containing trichinæ.

COMMUNICATIONS have been received from—

Dr. DE CASTRO, London; Dr. ALFORD, Taunton; Dr. BLOMFIELD, Exeter; Dr. COCKLE, London; Mr. FREDERICK STEVENS, Local Government Board, London; Dr. G. JOHNSON, London; Mr. W. FRASER, Aberdeen; THE GOVERNOR OF OXFORD MILITARY COLLEGE; THE SECRETARY OF THE DENTAL HOSPITAL, London; Dr. ASHBY, Manchester; Mr. MASSOL, Paris; THE SECRETARY OF THE ASSOCIATION FOR THE ORAL INSTRUCTION OF THE DEAF AND DUMB, London; Dr. H. W. HUBBARD, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. J. R. OSGOOD, Boston, U.S.; Mr. HENRY MORRIS, London; Mr. JONATHAN HUTCHINSON, jun., London; Dr. C. A. MACIEA, Dartford; Dr. E. F. WILLOUGHBY, London; Messrs. SHEE BROTHERS, London; Mr. J. CHATTO, London; Mr. F. MASON, London; THE REGISTRAR OF THE UNIVERSITY OF DURHAM; THE BOARD OF MANAGEMENT OF THE LONDON TEMPERANCE HOSPITAL; Dr. WARNER, London; Dr. CLARENCE FOSTER, Leeds; THE SECRETARY OF THE OPHTHALMOLOGICAL SOCIETY, London; Mr. LAWSON TAIT, Birmingham; Mr. MALCOLM MORRIS, London; Dr. ALEXANDER, Liverpool; Mr. R. J. GODLEE, London; Dr. J. W. MOORE, Dublin; THE SECRETARY OF THE ROYAL INSTITUTION, London; THE SECRETARY OF THE STANLEY HOSPITAL BAZAAR, Liverpool; Mr. A. W. WATERS, London.

BOOKS, ETC., RECEIVED—

A New Nervous Connexion between Intracranial Disease and Choked Disc, by Edward G. Loring, M.D.—The Uselessness of Vivisection upon Animals, by Lawson Tait, F.R.C.S.—An Inquiry into the Prevalence of Small-pox in Kilmarnock in the Last Century, by John C. M'Vail, M.D.—Transfusion Directe du Sang Vivant, par Roussell—Die Öffentliche Reconvalescentenpflege, von Dr. Paul Gueterbock—Rachitis, von Dr. Adolf Baginsky—Mittheilungen aus der Ophthalmiatrischen Klinik in Tubingen, von Dr. Albrecht Nagel—Report of the Medical Officer of Health of the Borough of Portsmouth for 1881—The Life and Work of St. Paul, part vi.—On Failure of Brain Power, by Julius Althaus, M.D.—The Medical Digest, by Richard Neale, M.D.—The Medical Man's Handy Book, by William Shepperson—On Diseases of the Eye, by Edward Nettleship, F.R.C.S.—Moses and Geology, by Samuel Kinns, Ph.D.—Animal Intelligence, by George J. Romanes, M.A., LL.D., F.R.S.—Catechism of Modern Elementary Chemistry, by E. W. V. Volckxsom, F.C.S.—Unqualified Medical Practitioners, etc., by David Edgar Flinn, L.K.Q.C.P.I., L.R.C.S.I.—Preliminary Remarks on Observations made in Davos in the Winter 1881-82, by A. W. Waters, F.G.S., F.L.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Centralblatt für die Medizinischen Wissenschaften—Revue Médicale—Gazette Hebdomadaire—National Board of Health Bulletin, Washington—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Ciencias Medicas—Gazzetta degli Ospitali—Italia Médica—American Journal of Neurology and Psychiatry—Archives of Medicine—Revista de Medicina—Friendly Greetings—Leisure Hour—Sunday at Home—Girl's Own Paper—Boy's Own Paper—Little Folks—Lancaster Observer, June 23—British Workman—Welcome—Band of Mercy Advocate—Weekblad—Caslon's Circular—Medical Temperance Journal—Medical News—Maryland Medical Journal—Ophthalmic Review.

THIRTY-THIRD SESSION OF THE

GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

THIRD DAY—THURSDAY, JUNE 29.

MR. TEALE, in moving the adoption of the first conclusion arrived at by the Committee in their Report on the Examinations, 1881-82, of the Medical and Surgical Corporations of the United Kingdom—"That every 'primary' or 'first part' examination should include dissections by every candidate."—said that the Committee had endeavoured as far as possible to regard examinations as a great engine for directing study. Speaking for himself, he had a strong feeling that of late educational matters in medicine had been drifting into difficulties from the fact that many different departments of knowledge had been added, others enlarged, and the subjects the students are expected to bring up for examination had been largely increased in quantity, until the whole mass of material which a student is liable to be called upon to be examined in had become too great. It was necessary to face the question, What should be required of students, so that they may profitably employ the time at their disposal, in order that the outcome of medical education and examination should be the best attainable? He was of opinion that the outcome was at present disappointing, mainly because of the want of a better distribution of time over the subjects required. In order to ascertain what a student ought to be expected to bring up for examination, the whole system required to be carefully studied in reference to the method by which examinations should be guided and regulated. The object of the visitors in bringing into prominence the points which they thought worthy of discussion, was that each point should be made valuable by the kind of study it brings out in the school, and, if possible, to bring out and develope by study the faculties which would be most useful in the practice of the profession; at the same time, as far as possible, doing away with that which was growing in all directions, namely, the system of "cramming," or getting up materials simply for the purpose of examination, which so injuriously affects students, and wastes the best energy of teachers. It was most desirable, for example, that a clinical teacher should not have the idea before him that his instructions had reference to any examination; but that he should teach with the view of creating practitioners of the highest order. (Applause.) With these remarks he would move—"That it is desirable that every 'primary' or 'first part' examination should include dissections by every candidate." He did not wish that these conclusions should become, during the present session, recommendations by the Council. There was no wish on the part of the visitors to put any strong pressure on the various bodies to take up this subject, but he believed the end would be gained by having a thorough discussion of the conclusions, and an expression of opinion by the Council, which would, he believed, be very extensively read, not only by examiners, but also by those to whose hands the teaching of the students was entrusted. This first conclusion did not command universal approval. Two of the bodies objected very strongly to it, but, on the other hand, the College of Surgeons in Ireland, the College of Physicians in Ireland, the Apothecaries' Society of Ireland, the Royal University of Ireland, and the Faculty of Physicians and Surgeons at Glasgow, besides the Universities of Oxford and Cambridge, were already carrying it into effect. He was therefore entitled to conclude that it was a wise and desirable thing to be done. Dealing with objectors, the principal opposition came from the College of Surgeons of England, who put their views in this way—"As regards the requirement of actual dissections by candidates in the primary examination, the Council have to observe that this question has been for many years past repeatedly under their consideration, both before and since the receipt of any reports made to, or any recommendations emanating from, the General Medical Council. The Council have arrived at the conclusion that any advantage which might be gained by insisting on dissections would be commensurate with the practical difficulty as to space, time, and supply of subjects which would attend their introduction as a distinct element of the examination, if made compulsory, in the case of every candidate. This objection becomes practically insuperable in the case of the College examinations during the months of April and May, when more than 600 candidates are examined. It must not be forgotten that every candidate is required to produce positive evidence that he has actually dissected, diligently, and to the satisfaction of his teacher; and that candidates are examined on recently dissected parts." It was evident that, in one sense, the College of Surgeons did not deny the desirability, but based their objection on the ground of impracticability. The College of Physicians and Surgeons of Edinburgh was the other objecting body, and their views were put forward in the following language:—"The commendation of dissections, introduced repeatedly in the course of the Report, as the best means of testing anatomical knowledge, is hardly consistent with experience. Few anatomists would consider that such dissections as could be made in half an hour by nervous and anxious candidates would be a fair test of their manual dexterity or anatomical knowledge, whilst it would be an enormous waste of time which could be better spent in testing their real knowledge. But, even admitting the advantage of dissection as part of the anatomical examination, it is difficult to see how, in all cases, it could be applied. The absence of any dissection test in the examination of the Royal Colleges of Edinburgh is not a matter of choice, but of necessity; there is a lack of supply of the necessary material. Years ago the question was carefully considered. The examiners had suggested that both dissections and operations on the dead body should form a part of the examination, and the matter was brought by the colleges under the notice of the Inspector of Anatomy. That official replied that no material was available for the purpose, as the unclaimed bodies obtainable in Edinburgh were quite insufficient for the requirements of the dissecting-rooms. In these circumstances the Colleges approached the Lord Advocate and the Home Secretary with the view of having the large amount of unused anatomical material in Glasgow and other towns of Scotland made available for the examinations in Edinburgh. These representations ended in the request of the Colleges being refused, the transmission of bodies from Glasgow and elsewhere being regarded as inexpedient, if not actually opposed to the recognised working of the Anatomy Acts. While, then, the anatomical supply in Edinburgh is barely sufficient to afford material for practical instruction in the dissecting-rooms, it is out of the question to propose to divert any portion of it to the purposes of examination." Their objection was, therefore, practically based on the same ground of the difficulty of obtaining subjects.

SIR WILLIAM GULL seconded the resolution, and quoted the opinion of DR. SHARPEY as to the importance of testing anatomical knowledge by actual dissection in the presence of the examiners. It might be interesting to the Council to recall the fact that last year the highest honours in anatomy went to a woman, who passed the first M.B. degree at the University of London. He had sent for that woman, and asked her how she had acquired the knowledge, and also what she had dissected (it must be remembered that she beat all the men of her year). She replied that she had dissected the human body carefully three times; and in her *viva voce* examination had dissected part of the head of the arm in the presence of the examiners. That dissection he had no doubt went far to place her in the high position that she had obtained. There could be no doubt that those who conducted the examination (and when he quoted the name of DR. SHARPEY, the high authority of such an examination would be recognised) thought that a very important fact. He demurred to the idea that because the objecting Colleges found a difficulty in carrying out this recommendation the public was to be satisfied with an imperfect test being applied to so all-important a branch of medical science. On reading through their objections, he was reminded of the many reasons given by the mayor of a certain town, who did not fire a royal salute on a certain occasion, until at last he came to the one real reason—that he had no guns (Laughter and applause.)

DR. LYONS cordially supported the arguments adduced by MR. TEALE, and said as a demonstrator of anatomy he could

bear personal and practical testimony to the great advantage of examining by actual dissections. No practical difficulty was found by the Royal College of Surgeons in Ireland, and great benefit was derived from the practice. The whole subject of anatomical examination was deserving of the closest attention on the part of the Council. He believed there was no subject in which artificial knowledge crammed up out of books and by oral instruction had been more assiduously foisted on the profession; and he knew of no efficient way of testing the real capacity of candidates except that of setting them down to make an anatomical dissection of a given part of the human body for themselves in the presence of examiners. He would go farther than the resolution of Mr. Teale, and he would state in broad terms that the Council is of opinion that it is highly desirable, and in fact necessary, that anatomical examinations should include dissections by every candidate.

Dr. PYLE said that in enumerating the corporations who had already adopted this system of examination, Mr. Teale had omitted the University of Durham, which was the very first to institute anatomical examinations. He quite concurred in everything that had been said with regard to the importance of the system.

Mr. MACNAMARA said the only objection he had to Mr. Teale's resolution was that it was too weak; he would much prefer a statement by the Council that every primary or first part examination should include dissection. He had brought up this recommendation four or five years ago, when, after a long debate, another milk-and-water resolution was arrived at in these words:—"In examinations in anatomy candidates should understand that they may be called upon to perform actual dissections; and candidates in surgery should understand that they may be called upon to perform one or more operations on the dead subject." Now, either the Council did believe in the importance of this, or it did not. If it did, there ought to be a bold pronouncement upon the subject, and then it would go forth with the authority attached to it of being the distinct opinion of some of the best thinkers in the medical profession. With regard to the objection raised as to the difficulty in supplying the necessary number of subjects, he was talking over this matter with his friend Professor Redfern (whose name no doubt would carry great weight with the Council), and he made use of a very remarkable expression on the subject: "I rather think that it would be an advantage to have a scarcity of subjects, for students would have to go deeper down with their dissections." Any man of experience conducting an anatomical examination would recognise at once, by the way the student handled his scalpel and forceps, whether he understood the business or not. As to the bugbear of nervousness, this style of examination had been conducted now for some years in the College of Surgeons in Ireland, and the question of nervousness had never been raised.

Professor HAUGHTON: It does not exist in Ireland. (Laughter.)

Mr. MACNAMARA: If a student were ignorant he might show nervousness, but if he were in the habit of dissecting, and competent to do it, there was no danger from that source. The result of the system in the Royal College of Surgeons was that the students now thronged the dissecting-room. They did not sit over the fire smoking their pipes, but struggled with each other to get subjects to do practical work upon, so as to enable them to acquit themselves satisfactorily at their examinations. On these grounds he would move as an amendment that the words "it is desirable" should be omitted as weakening the force of Mr. Teale's resolution.

Dr. PYLE seconded the amendment.

Mr. SIMON trusted that little by little the water would be eliminated from this recommendation of the Council; but at present a peremptory universally-applied statute would not be quite admissible. Yet he felt, perhaps as strongly as anyone in the room, the desirability that every primary examination should include actual dissection by every candidate. Perhaps the excuse put forward, of its not being universal amongst examining bodies, was, to a certain extent, valid; but it could not be accepted as permanently valid. Without wishing to pass the resolution in the drastic form recommended by Mr. MACNAMARA, he thought it would be sufficient to adopt Mr. Teale's language, so as to give a hint to the bodies concerned, that it was their duty to provide proper means for carrying on this anatomical examination. Taking up the story of Sir William Gull, he suspected that the royal lady only let off the illustrious municipal authority on the ground, that the town not being a fortified place, it was not his duty to have guns. Otherwise, if history rightly described her character, Her Majesty would have taken very sharp measures with the unfortunate mayor. (Laughter.)

Mr. MARSHALL, speaking for the College of Surgeons of England, explained the difficulty of obtaining subjects, and said the result of carrying out this recommendation would be to starve the dissecting-rooms; and if he were to choose between two evils, he would rather promote education than examination. It seemed to be forgotten that the number of students who presented themselves for primary examination during the past year was 1091. And it was not as though these were spread evenly over the entire year; but there was a rush of students for examination in certain months.

Professor TURNER was of opinion that this recommendation was not only entirely impracticable, but unnecessary. The body that he represented simply could not carry it out. He would also say a word or two on the subject of necessity. There was no one at the table who had more experience in anatomical teaching and examination than himself; and he maintained that it was perfectly possible to carry on a sound anatomical examination without submitting the candidates to the test of actual dissections. You must have a dissected body to examine the student upon, but he maintained it was a matter of indifference whether the dissection the student was examined upon was made by himself or by somebody else. You must have the student face to face with the dissected part, and then not ask him to point out a certain artery or a nerve, but you must make him touch it with his fingers, and let you see how he will handle it, and a skilful examiner would speedily find out how much dissection the student had done for himself by the way in which he handled the subject. Moreover, in the Scotch universities there was a personal knowledge of the candidates as students by the examiners, who were in the habit of seeing the dissections of their students daily for years. One method that he adopted in connexion with practical anatomical instruction, was to have once a week a systematic examination of the students' dissections, and those who deserved it obtained certificates at the end of the session for the work done—which was an infinitely better test than any half-hour's practice on the day of examination could be. On these grounds, while entirely agreeing that candidates should understand that they may be called upon to perform actual dissections, he was of opinion that the Council should not propound any general recommendation, such as Mr. Macnamara's, without some consideration of the peculiarities of the method of testing adopted in the various anatomical schools.

The debate was continued by Professor HUMPHRY, who spoke against the stringent resolution of Mr. Macnamara, and supported that of Mr. Teale; by Dr. HAUGHTON, who entirely concurred with the experience narrated by Professor Turner, and supported the original resolution; by Dr. BANKS, who also spoke of the difficulty of obtaining subjects; and by Dr. WATSON, who rebutted the charge of inconsistency brought by Mr. Teale against the reply of the Royal College of Surgeons of Edinburgh, and said that, having regard to the difficulties which certain corporations found surrounding the subject, he would propose as a rider to the original motion the words, "That where circumstances permit it is desirable," etc.

The amendment was seconded by Dr. PETTIGREW.

Sir WILLIAM GULL said the discussion was drifting into a very unsatisfactory course. Certificates of dissection such as those referred to by Professor Turner would be the most fallacious tests that could be conceived. It came to this: if such certificates were efficacious, examinations were superfluous. He was perfectly aware of their value in the case of Professor Turner, and if all teachers were Professor Turners there would be no difficulty in the way; but, on the other hand, it must not be forgotten that a fixed principle with the Council was that no teacher should examine his own students.

Professor TURNER remarked that the language laid down by the Council was that no examination should be conducted "wholly" by the teacher.

Sir WILLIAM GULL said that word was put in to effect a compromise, and because, after debate, it could not be carried in its proper form, and nothing could be more un-

desirable than compromise in such matters. He did not believe in the plea of impracticability which had been raised. Difficulties must be overcome as and when they arose, and when it was found that the main part of the difficulty felt by the College of Surgeons in carrying out what all admitted was the most efficacious method of examination arose in consequence of the great rush of students in one particular month of the year, it was obvious that by proper regulations the examinations could be distributed over the entire year, so as to obviate the difficulty of providing sufficient subjects for dissection. If this desideratum could not be obtained the public would suffer. It therefore behoved the Council to do their best to provide means for overcoming the difficulty, and the least they could do was to pass this resolution, which put on record the desirability of this improvement in the examination of students.

Mr. SIMON suggested that in the case of the College of Surgeons of London the difficulty might be to some extent obviated by sending their examiners round to the schools to see the students at work in the dissecting-room.

Mr. MARSHALL, in reply to Sir William Gull, said it was absolutely necessary that examinations should be made to correspond with the curriculum of study. The College could not keep men hanging about London for months. When he had said that there was a rush of students in certain months, he did not mean to imply that there was any crowding, or bustling, or undue haste in the examinations. The men were properly arranged and came up in certain numbers day by day, and of course it would be necessary to provide subjects for them.

Sir WILLIAM GULL had no doubt the difficulties were great, and they ought to recognise them; but they ought not to rest until they were overcome. If the examination of three hundred students in July could not be well conducted, there ought to be one hundred in July, one hundred in August, and one hundred in September.

After some further observations from Professor HUMPHRY and Dr. QUAIN, Mr. Macnamara's amendment was put to the vote and lost, as was also the proposition by Dr. Watson to add the words "where circumstances permit."

The PRESIDENT then put the original motion, which was carried by a large majority.

A deputation, consisting of Dr. W. Playfair, Mr. Sibley, Mr. Ernest Hart, Dr. J. H. Aveling, and Dr. Holman, attended the Council for the purpose of making a representation to them on the subject of the draft Bill for the Registration of Midwives, a copy of which had been forwarded by the Clerk to the Privy Council to the Medical Council, requesting their opinion thereon.

Mr. ERNEST HART, in introducing the deputation, recounted the history of the question and the various efforts which had been made by the Obstetrical Society to promote legislation in regard thereto, recalling also the action taken in the matter by the Local Government Board, the Duke of Richmond, and the Council itself. In the course of his remarks he said that there were actually from 10,000 to 11,000 women practising as midwives in England, assuming the title at their own will and pleasure, and fulfilling their duties without any necessary previous training, and there was no power to regulate either the functions they performed or their fitness for performing them, their moral character, or their technical skill. Statistics had been prepared in 1873 by Dr. Aveling and others, which showed that the mortality of women attended by skilled midwives under ordinary circumstances, at their own homes—viz., by midwives of the Royal Maternity Charity—was less than the general mortality throughout the whole population, and that this immunity from mortality was attributed to the fact that the women so attended were in charge of skilled persons, whereas the general population was partly attended by skilled practitioners and partly by these 11,000 women, the majority of whom were unskilled, so that the disadvantage of women being attended in childbirth by unskilled midwives more than counterbalanced the advantage which the general body of the public derived from being largely attended by skilled practitioners. In the Bill introduced by the Duke of Richmond to amend the Medical Act of 1858, clauses were inserted to carry out the object of regulating the training and employment of midwives, and no opposition was raised upon those particular clauses of the Bill. After some discussion, however, and as the necessity arose for amending that Bill, it became evident that it was desirable to separate this issue from the general question of medical education with regard to the profession and the constitution of the Council, and therefore in the recent inquiries which were held by the Royal Commission on the subject of medical reform, to which the Duke of Richmond's Bill was referred, that part of the subject was left aside to be treated separately. In those circumstances, seeing the danger of the question being left open indefinitely, Dr. Aveling, in conjunction with himself, had undertaken to get a measure drafted on the basis of the recommendations of the Obstetrical Society, and the measure now before them was the result. He would only say generally with regard to the Bill, that while it was thought right and respectful to the Medical Council that their approval should be obtained, and that they should be constituted the leading authority to control this subject, the Bill was so drafted that the duty and responsibility of the Council should be limited entirely to control, the object being to enable the Council to appoint a committee to whom it should delegate the powers conferred upon it. Care had also been taken to remove any burden of expense from the Council, and with regard to a word which was used in one clause, "may," in reference to which a fear had been expressed that it might be interpreted to mean "must," those who had charge of the Bill were perfectly ready to modify the language in any way that might be satisfactory to the Council, upon whom it was not desired to throw any expense whatever. Its duties would be limited to appointing a governing board, approving the regulations proposed by that board, and transmitting them to the Privy Council. On the other hand, the machinery in the Bill had been rendered as simple as possible, so as to make the expenses fall as lightly as possible upon the midwives, and for that purpose it was proposed to create local examining bodies, whose fees would be limited, as their functions would not be difficult, and who would be composed of resident practitioners. The fees charged would be low, and great latitude would be left to the board to make such regulations as might seem most suited to the class of women with whom they would have to deal. There was no idea of setting up any new class or superior class of educated persons as midwives. On the contrary, it was intended that the Midwifery Board should act solely on the lines laid down, treating these women as midwives meant for the poorest class, limiting their examinations so as to confine their duties to those of ordinary midwives, doing their work under the conditions well known in the profession, and which were already laid down in the regulations of the Obstetrical Society, the general limit being confined to cases of natural labour.

Dr. PLAYFAIR having stated that the action of the Obstetrical Society in the matter had been taken with the view to smooth away any difficulties that might arise in carrying out the very important objects secured by the Bill,

Dr. AVELING next addressed the Council in support of the measure, and stated that 60 per cent. of the poor women in manufacturing towns and villages are attended by the general body of midwives of which Mr. Hart had spoken. The result was notorious—that many of these poor women lost their lives or received irreparable injuries during their confinements from want of skill on the part of their attendants. This was entirely alien to the spirit of the English law, which in every other department of life prevented the safety and health of Her Majesty's lieges being subject to the care of unqualified persons. He instanced the case of masters of merchant vessels, pharmaceutical chemists, and others, who were placed in positions of responsibility. He might also mention that the midwives wished for this control themselves, and had brought before the President of the Local Government Board a petition urging that some such measure should be passed. The Matrons' Aid Society, which was entirely made up of midwives who had passed the Obstetrical Society's examination, were also now urging forward a petition in Parliament with the same view.

Dr. HOLMAN (of Reigate), as a general practitioner, and speaking on behalf of the profession, referred to the mortality attributable to the unskilful action of midwives, either by wrong treatment or delay in summoning proper medical attendance. He estimated that three-fourths of these women were not only ignorant, but as a rule dissolute and given to drink. If the Council would take up this Bill they

would not only be benefiting the public, but conferring a considerable boon upon a very large class of provincial practitioners.

Dr. AVELING mentioned that at the last meeting of the Obstetrical Society of London a uterus was exhibited which had been torn away from the woman's body by an unskilled midwife in mistake for the after-birth.

Dr. SIBLEY also spoke in favour of the measure.

The PRESIDENT, at the request of Mr. Macnamara, inquired if the deputation could state why Ireland was omitted from the Bill.

Mr. HART stated that it was believed that Ireland was in a better position in respect to midwives than England; and that it had been thought wisest to make the Bill refer exclusively to England and Wales.

Professor TURNER, through the President, asked for some explanations in regard to payments and fees necessitated by the working of the proposed measure; in answer whereto,

Mr. HART stated that the framers of the Bill desired to leave as open as possible the questions relating to modes of payment—questions which might be better adjusted hereafter—but that it was believed that ample funds would be forthcoming to meet all expenses.

Dr. HUMPHRY wished to know what was the general feeling of the local practitioners throughout the country in regard to this subject.

Mr. HOLMAN answered that opinion throughout the country, among local practitioners, was almost unanimous in respect to the value of the Bill.

Dr. HAUGHTON inquired with respect to certain "practical difficulties" that he saw in the Bill, as it affected Wales and Ireland.

The PRESIDENT, in dismissing the deputation, said: We thank you very much for bringing this matter before the Council, or rather for favouring us with your view upon the subject. We have received a copy of the Bill from the Lord President of the Council, with a desire that we should give our opinion to the Government upon the subject: and a committee has been already appointed to consider the matter. One of the functions of that committee will be to give its fullest attention to the statement which Mr. Ernest Hart and his colleagues have laid before us. I need only add that the Council is deeply interested in this subject. It is cognisant of what took place at the Local Government Board two or three years ago, and also of the particulars of that Bill of the Duke of Richmond from which the clauses for the registration of midwives were withdrawn. Moreover, the Council has appointed a committee to inquire into the whole subject, including the condition of things in Ireland; and the deputation may rest assured that we shall not allow the matter to rest until we have given our best advice to the Government upon it.

The deputation then withdrew.

The Council having again resolved itself into a committee of the whole Council,

Mr. TEALE moved—"That, in view of the great and increasing range of chemical and physiological science, it is particularly desirable, in regard of those subjects, that examining bodies should comply with Recommendation 40 of the Council, and that candidates should be apprised beforehand of the limits of the examination in these subjects."

In the course of a debate upon this motion, in which Dr. Pitman, Professor Haughton, Mr. Simon, Dr. Aquilla Smith, Sir William Gull, Dr. Storrar, Dr. Watson, Professor Turner, Dr. Quain, and Dr. Haldane took part, an amendment, moved by Dr. Watson and seconded by Dr. Pettigrew—"That the question as regards physiology be considered apart from that of chemistry"—was negatived, and the original motion was put to the vote and agreed to.

The Council then resumed, and the following report was received and entered upon the Minutes:—

The Finance Committee reports that the income of the General and Branch Councils for the year 1881 (ending January 1, 1882) has been £6509 7s. 11d., an amount which is £362 11s. 1d. less than the income of the year 1880. The expenditure during the year 1881 has, however, been only £4786 14s., which is less than the expenditure of 1880 by £817 11s.

The Committee has, therefore, the satisfaction of reporting to the Council that the excess of income over expenditure for the year 1881 amounts to £1722 13s. 11d., the excess of income for the previous year, 1880, being £1568 1s.

It will be seen that the chief item of expenditure wherein there has been an increase during the year 1881 is the visitation of examinations, which amounts to £920 19s. 6d. In the house expenses there has been an increase of £93 5s. 5d., owing mainly to repairs carried out; and the production of the Medical Register has cost £28 3s. 3d. beyond the amount expended on this item during the previous year.

The principal items of diminished expenditure of the year 1881, as compared with 1880, are as follows:—(1) Fees paid to members of Council, amounting to £393; (2) publication of the Pharmacopœia, amounting to £483 5s.; (3) printing, £63 14s. 1d.; (4) law expenses, £83 19s.; and (5) salaries and retiring allowances, £68 4s. 7d. The latter have now ceased.

While, therefore, the total increase of expenditure in respect of certain items is £1050 1s. 2d., the total decrease in respect of other items amounts to £1486 13s. 9d., showing, on the whole, a decrease in expenditure of £436 12s. 7d.

From the table which shows the average income and expenditure of the General and Branch Councils during the last seven years, it will be seen that the average yearly income during that period exceeds the average yearly expenditure by £434.

Visitation of Examinations.—The Committee deem it desirable to mention the several items, with the view of comparing them with like expenditure in former visitations. The sum of £1279 17s. 10d. (made up of the following items: visitors' fees, £791 14s.; travelling and hotel expenses, £135 6s.; and printing, stationery, shorthand writers' fees, etc., £352 17s. 10d.) has been already expended in the visitation of the nine medical corporations, and various other sums in respect of expenses incurred have yet to be paid. Comparing the expenditure thus far with that incurred on previous similar occasions, it will be found that in 1873-74 ten visitations were conducted at a total cost of £598 10s., and in 1874-75 thirteen visitations involved a total expenditure of £1174 19s.

Dental Finance.—In the receipts of the Dental Registration Fund for the year ending ending January 1, 1882, amounting to £690 16s. 2d., it will be noticed there is an increase of £74 8s. 11d. over those of last year, while the expenditure, £1148 7s. 3d., has been less by the sum of £660 3s. 4d., leaving the deficiency of income for the year £457 11s. 1d., compared with a deficiency of £1192 3s. 4d. in 1880.

Investments.—Pursuant to instructions given to them at the meeting of the English Branch Council in 1881, the Treasurers have invested £4015 in the purchase of £4000 Consols, in the names of the Trustees of the Branch Council, thus making a total now invested under this trust of £29,000 Consols.

June 28, 1882. RICHARD QUAIN, M.D., Chairman.

The REGISTRAR then read a communication with regard to a medical practitioner registered in 1877 with the qualification "Lic. Apoth. Hall. Dubl., 1877," from the South Australian Branch of the British Medical Association:—

Adelaide, South Australia, March 31, 1881.

Sir,—The members of the South Australian Branch of the British Medical Association, and other medical men practising in South Australia, request the immediate and best attention of the Council to the apparently careless and informal manner in which the Apothecaries' Hall of Ireland has granted its diploma or licence to practise to at all events one of its licentiates, and to the grave consequences which may result to the public if the course pursued in the instance referred to has hitherto been or shall hereafter be followed in other cases.

The letter was of extreme length, and set forth the facts which had come to the knowledge of the writers in consequence of a trial, the judge's notes of which they appended, that the practitioner in question had been improperly admitted to the Register, and concluded as follows:—

For many years public and professional opinion throughout the United Kingdom has been tending to the conclusion that at least four years of close and continuous professional study should be required of every candidate for the medical profession, and that the safety of the public and the high status of the profession cannot be secured by less stringent requirements. We therefore protest strongly against the course which has been pursued by the Apothecaries' Hall of Ireland in this particular instance, and request that the General Council of Medical Education and Registration will forthwith use their best exertions to prevent the recurrence of a practice which may prove so injurious to the public welfare and so degrading to the medical profession.

This was signed by the President and officers of the South Australian Branch of the British Medical Association and many medical authorities in the colony.

The foregoing communications having, by order of the Executive Committee, been referred to the Apothecaries' Hall of Ireland, with the request that the Hall would furnish an explanation with regard thereto, in order that it might be laid before the General Council, the following answer has been accordingly received:—

The Apothecaries' Hall of Ireland, Dublin,
September 5, 1881.

Sir,—In accordance with the request of the Executive Committee, I am directed by the Governor and Court to submit the following explanation, in reply to the communication of March 31, 1881, received by the Committee from certain members of the South Australian Branch of the British Medical Association, with regard to the case of Mr. Hartley Dixon.

In May, 1877, Mr. Dixon addressed a memorial to the Governor and Court, soliciting a special examination, on the ground that he had commenced his medical education in 1875; and setting forth the other general and educational circumstances enumerated in the South Australian communication in the hands of the Executive Committee, and inserted in the published Minutes of their meeting of July 28th ult.

The memorial was accompanied with a number of documents, subsequently returned to Mr. Dixon.

After due deliberation, four members of the Court were nominated as committee to investigate these documents, and to report thereon to the Governor and Court at their next meeting.

So far as their memories serve, the members of this committee have no doubt that the documents confirmed the statements contained in Mr. Dixon's memorial. They recommended that on Mr Dixon attending the several courses of lectures then commencing, together with hospital

practice, he should be admitted to a strict practical examination at the termination of the session, as his memorial stated that under no circumstances could he remain longer in Europe than the (then) present summer, on account of the delicate state of his own and of his wife's health.

Mr. Dixon was admitted to examination before eleven members of the Court, in September; and passed creditably and to their entire satisfaction.

In conclusion, the Governor and Court respectfully submit the following summary of facts to the consideration of the General Medical Council:—

1. That the applicant had studied under a medical practitioner in England, and had attended medical lectures for at least two years previous to going to Australia in 1857.

2. That he had been engaged for several years in extensive though irregular practice, having attended, as stated in his memorial, about a thousand cases of midwifery.

3. That he had made an expensive and very commendable effort to repair past errors and deficiencies, in order to attain a legal standing in the profession.

4. That his medical career had commenced before the General Medical Council was called into existence.

5. That his case was a special and exceptional one, and that their Act of Incorporation of 1781, as interpreted by Baron Pigott, authorised the Governor and Court to admit like cases to examination, on such conditions as they might consider suitable and adequate for securing the safety and welfare of the public. I have the honour to remain, Sir,

Your obedient servant,

W. J. C. Miller, Esq., C. H. Leet, M.D., Secretary.
Registrar of the General Medical Council.

By order of the Executive Committee, this communication has been forwarded to the South Australian Branch of the British Medical Association.

On the motion of Mr. Macnamara, who urged upon the Council the necessity of not passing over this communication by a hurried debate at this late hour, the consideration of the matter was adjourned until a subsequent day.

The Council then adjourned.

Fourth Day—Friday, June 30.

In answer to a question, of which Mr. Macnamara had given notice, asking the President to state what action, if any, on the part of the Council was proposed during the present session with regard to the Report of the Royal Commission,

The President said there was no notice on the programme bearing upon the subject, and he had only to add that he had received no private notice of any intention on the part of any member of the Council to move in the matter.

The Council then resolved itself into committee and resumed the consideration of the 3rd Conclusion of the Visitors' Report—"That at the final examination candidates should be examined orally or practically on strictly regional anatomy, that is, on the parts of anatomy which illustrate surgery and medical diagnosis, and not on purely descriptive anatomy."

Mr. Teale said that he found that this and several other conclusions arrived at by the visitors coincided with former recommendations of the Council, and for that reason he proposed to bring forward a motion upon the subject in a modified form which would have reference to that fact. The intention of the visitors was not so much to bring these matters forward as recommendations as to express the impressions they had received; and with regard to this question, the first point to which he wished to draw attention was that in final examinations students in a great number of instances appeared to have very much forgotten their anatomy. It was also evident that in final examinations questions were liable to be put which hardly came within the range of such anatomy as may be fairly expected at a final examination. Anatomy at a primary examination must be more or less minute, and taken apart from its practical application; anatomy in a final examination must be mainly looked upon with regard to its practical application. He found that the Council's 30th Recommendation expressed the view of the visitors very accurately—"That in the second division of the examination (that is, the final), students shall be examined in medicine, including medical anatomy, and in surgery, including surgical anatomy." The visitors had observed a very good method employed in the primary examination at the Society of Apothecaries, London, where students were examined on a living subject in order to test their knowledge of the organs. The same system was carried out at the College of Surgeons. The resolution he had to move in its modified form would run thus:—"That it is desirable that at the final examinations candidates should be practically examined in medical anatomy and surgical anatomy."

Professor Haughton said he presumed it was the wisdom of our ancestors which invented the terms "surgical anatomy" and "medical anatomy." He had never been able to understand the *rationale* of those terms, because to his mind you might as well talk about "Protestant anatomy" and "Catholic anatomy." (Laughter.)

Mr. Teale then proposed—"That at final examinations candidates should be practically examined in anatomy in its relation to practical medicine and practical surgery." And in this form, seconded by Professor Haughton, the resolution was adopted *nem. con.*

Conclusion No. 4.—"That in every final examination for a surgical diploma, candidates should be required to perform operations on the dead subject."

Mr. Teale said this was very much of the same nature as conclusion No. 1, upon which there had been such a long debate. In deference to what he had heard during the debate from Professor Marshall, Professor Humphry, and Professor Turner, as to the difficulty of getting materials for practical work of this kind, he proposed to modify his original resolution into this form—"That it is desirable that in every final examination for a surgical diploma, candidates should, as far as practicable, be required to perform operations on the dead subject in accordance with the intention of the Council's Recommendation No. 44." That recommendation was as follows:—"In examinations in anatomy candidates should understand that they may be called upon to perform actual dissections, and in surgery that they may be called upon to perform one or more operations on the dead subject." The visitors had seen this most thoroughly carried out in Dublin with a very moderate number of subjects, and without calling for such an extravagant expenditure of time as *à priori* they would have expected.

Sir William Gull, in seconding the resolution, referring to the difficulty that was experienced in finding a sufficient number of subjects for the practice of students, said he hoped it would induce a better spirit among them—a spirit of reverence, which was at the bottom of all true science—(applause)—and which more especially lay at the bottom of all true study of the medical profession. (Applause.)

Mr. Macnamara complained of the milk-and-water quality of this resolution. It was monstrous that any corporation should be able to certify that a man was a surgeon (who must be capable of performing several very important operations) without having ever once tested him to see whether he could perform any operation whatever. With regard to the difficulty of obtaining subjects, he was a great believer in the old adage, "Where there is a will, there is a way."

Professor Marshall combated the idea that the ability of a student to perform an operation could not be tested except in this way. To be consistent Mr. Macnamara ought to object to any man being certified as fit to be a surgeon until the examiners had seen him perform every operation which he could possibly be called upon to perform. If there were no practical difficulty in the way he admitted that these tests would be excellent in themselves. But as a practical man he was brought back to the question of practicability. (Applause.) Students were very well taught by seeing operations performed by skilled surgeons, and until the teaching institutions could be supplied with sufficient subjects, it was an absurdity to make these recommendations. He laid a great deal more stress upon teaching than examination. (Applause.)

Dr. Chambers reminded the last speaker that the value of examination was the control which it exercised on education—(hear)—and as a test to find out whether a man had gone through a proper course of study. This might be done in anatomy or surgery by one or two very small operations, because from seeing the student operate upon them you could judge how far he was qualified to engage upon other and more difficult operations, and this without any great waste of subjects. (Applause.)

Professor Turner supported the views expressed by Professor Marshall.

Professor Haughton said that these considerations would restrain his vote, but otherwise he would have sided with Mr. Macnamara, because he knew that Irish students dreaded this practical examination more than all the printed and clinical tests that they could be put to, except, indeed, those of them who were in earnest about their business, and always entered upon this study with enthusiastic zeal. He knew an instance of the latter class of students who, in the middle of an operation on a dead body, broke his scalpel, and, with scarcely a pause, put his hand into his pocket and

pulled out a spare one which he had in reserve, and continued the operation; and so completely did he enter into the spirit of his work, that, forgetting himself for the moment, he turned round and rebuked a fellow-student for holding the limb in such a manner as to hurt the patient. (Laughter and applause.)

Mr. TEALE's motion was then put to the vote and adopted *nem. con.*

Conclusion No. 5.—"That, for every minimum qualification, the examination in operative surgery should be confined to emergency operations, such as any practitioner may be suddenly called upon to perform, *e.g.*, amputation, deligation of arteries, catheterism, urethrotomy, tracheotomy, etc., and should for the most part exclude complicated operations, not of sudden urgency, such as ovariotomy, excisions of joints, plastic operations, lithotomy, lithotrity."

Mr. TEALE, in moving the adoption of this Conclusion, said that while on the one hand it was necessary that some guarantee should be given to the public that practitioners should be able to perform emergency operations, on the other he was quite alive to the argument, which had been urged upon him in Edinburgh, against rendering the pass examination too extensive and too difficult. He had been asked there how the public could expect candidates for an office, which in many districts brought in no more than £70 or £80 a year, to pass these highly difficult and extensive examinations. It was therefore necessary not to press these tests too far. At the same time some guarantee should be taken that a man could, for instance, in an emergency, amputate a limb.

Sir WILLIAM GULL, in seconding the motion, said that he thought it might be modified so as to only include such operations as did not admit of delay. Perhaps the most convenient method of wording the resolution would be to omit the enumeration of the operations, and leave it to the discretion of the examiners. (Applause.)

This view was supported by Professor MARSHALL, who said that, if operations were enumerated, the danger was that the teachers would cram the students with information on those particular subjects, and teach them nothing else. (Hear.)

Dr. WATSON suggested that this recommendation should be confined to surgical qualifications.

Professor HUMPHRY enumerated several operations which could not be tested on the living body, such as hernia, tracheotomy, and the removal of abscesses.

Mr. TEALE said he was satisfied with the discussion that had been evoked. He agreed with Professor Humphry that it was a mistake for the Council to be too minute in its recommendations to examiners, and therefore would beg to withdraw the motion.

Mr. TEALE, in moving the adoption of Conclusion No. 6—"That the application of bandages and splints should be required in every surgical examination,"—said the object was to compel the students so to work that when they came up for their examination they should be thoroughly *au fait* in practical work. It must be remembered that a recommendation of this sort could do no harm. It did not entail any additional brainwork, and it was calculated to raise the practical efficiency of students. (Cheers.)

Sir WILLIAM GULL seconded the resolution.

Dr. WATSON suggested the withdrawal of the word "clinical," and this was agreed to.

Dr. HALDANE referred to a remark of the visitors in reference to the College of Physicians and Surgeons, Edinburgh, of which they reported—"Another weak point was that there was no systematic provision of padded splints for the candidates to select from, as was the case at the Glasgow hospitals, but each candidate had to apply to the ward nurse for the materials he needed, and to make the best of what the nurse chose to supply. The Glasgow plan not only economises time, but appears to be a more adequate test of the proficiency of the candidate. On the oral examination the visitors have not much to remark, further than that it was fully and carefully carried out so far as it went." The surgical examiners had entirely disapproved of those observations, because they considered it a far better test of the candidate's knowledge to make him select the splints himself and apply them. He was placed in the same position as any of the surgeons in the infirmary, and he asked the nurse to provide what he wanted. The reply of the Colleges on the point was this:—"The Colleges consider that this should form a part of every practical examination in surgery, general or clinical. They therefore cordially agree with the recommendation, with this proviso, that the candidate shall not be supplied with padded splints or other prepared apparatus, but shall show that he knows what he requires in order to adjust the splint or other apparatus to be applied."

The motion was put to the vote, and carried *nem. dis.*

Sir WILLIAM GULL suggested the withdrawal of Conclusion No. 7—"That the examination of normal and morbid urine should be an essential part of every clinical examination in medicine,"—because he considered that it was defective as it stood. A medical man ought to take as much notice of a man's stools as of his urine—in fact, every secretion of the body should be examined when necessary. When he was a clinical teacher he used to arm the student's mind against any disinclination to perform this duty by quoting the language of Bacon: "The rays of the sun enter alike the palace and the privy, and are not defiled thereby." (Applause.)

The motion was withdrawn.

Mr. TEALE, in bringing forward Conclusion No. 8—"That the practical examinations in chemistry should, when feasible, be conducted in a laboratory,"—said the visitors felt that a practical test of a student's knowledge of chemistry could be much more thoroughly conducted, and the student had a better chance of showing what he knew when the examination was thus conducted.

Professor HAUGHTON suggested the omission of the words "when feasible," because they had not here dealt with any scarcity of subjects, and every examining body ought to be in a position to provide ample chemical materials.

In answer to a question by Professor TURNER as to what he meant by a laboratory,

Mr. TEALE said he did not mean an examination conducted at a table as part of the *viva voce* examination; he meant that there should be a place where students could sit apart for a reasonable time to conduct their tests deliberately, and where examiners could go and observe what the students had done.

Sir WILLIAM GULL strongly supported the view of Professor Haughton, and said he had had a very pleasing opportunity of seeing it practically carried out in the University of London. Any of the corporations who did not possess laboratories for the purpose ought to provide them. (Applause.)

Professor TURNER said it must be remembered that this examination was not with a view of testing the knowledge of expert chemists, but only in order to see that students possessed a sufficient knowledge of chemistry for the qualification. Qualitative analysis was all that was required, not quantitative.

Mr. MACNAMARA said he must record his opinion in favour of the suggestion of the visitors.

Dr. STORRAR said the University of London, which was a purely examining body, without any teaching staff, nevertheless undertook to examine practically in every objective subject. They had a large room fitted up as a laboratory, containing a series of compartments or boxes, into which the candidates retire, each one by himself, and found all the means of conducting the inquiry which was placed before him on paper; and he was called upon to answer the questions in writing as to the result of the experiments he had been obliged to undertake. (Applause.)

The PRESIDENT remarked that, with some knowledge of the local examinations throughout the country, he should have at first thought the motion entirely unnecessary, for the idea of an examination in chemistry without the appliances of a laboratory would never have occurred to him. (Cheers.)

The motion was put to the vote and agreed to.

Mr. TEALE said he was rather inclined to withdraw Conclusion No. 9, because it entered too much into the detail of matters which should be left to the discretion of the examiners.

Professor TURNER pointed out that there was already a recommendation passed by the Council relating to microscopical investigation.

Mr. SIMON thought instead of withdrawing the motion it would be better to shape it with reference to the recommendation.

A long debate ensued upon the subject, in which Dr. Lyons, Mr. Simon, Mr. Marshall, Dr. Watson, the President,

Dr. Storrar, Professor Humphry, Mr. Macnamara, Dr. Pettigrew, and Dr. Haughton took part.

Ultimately the resolution was passed in the following terms:—"That it is desirable that the recognition of microscopical specimens, normal and morbid, should form a part of the examinations for medical and surgical diplomas."

The REGISTRAR read the 10th Conclusion, which was as follows:—"That in oral examinations, where the time allotted is strictly limited—for instance, to ten minutes or a quarter of an hour,—there is a serious risk that candidates of average ability, who have been conscientiously taught and fairly prepared in their work, may be rejected owing to misunderstanding or nervousness; and this is a hazard which, reacting as it does injuriously upon study and teaching, ought to be, if possible, avoided by allowing a margin of additional time for satisfying the examiners in all such cases. The actual practice of certain boards, and especially of the Colleges of Physicians, shows that this suggestion is not impracticable, although it may be more or less difficult to carry out where the numbers are very large. The visitors think that no mere difficulty of mechanism should be allowed to interfere with its being adopted as a measure of justice to candidates."

Mr. TEALE, in introducing the subject to the Council, said that, while it was difficult to move the adoption of this conclusion in any particular form, the points contained in it would, if discussed by the Council, elicit some very valuable and interesting remarks. The attention of the visitors had been directed to the cause of the enormous number of rejections, which varied from one-third (the lowest proportion) to one-half. Having this point in view, they were impressed by the splendid mechanism provided for examinations at the College of Surgeons of England. It was one of the most effective and impartial in the kingdom, but its very perfection led to enormous rejections of candidates, who, in the opinion of their fellow-students and teachers, were some of the best men of their year. As an illustration, he would repeat the remark of an anatomical teacher, who was also an examiner—"I may send up a dozen candidates to the primary examination. I know that a certain proportion of them will be rejected, but I cannot say beforehand which of my pupils will be rejected." (Applause.) It was a most unfortunate thing if men who were industrious and well prepared could not have a reasonable certainty of being passed. It led to cramming, and to a great waste of time in preparation for examination in order to make assurance doubly sure. The visitors thought they saw some reason why this state of things existed when they witnessed the examination at the College of Surgeons. In the first place, in order to procure absolute impartiality, the examination was divided into stages, each stage being carried out by a different examiner. The student had to go before four different sets of examiners for the different parts of his examination, and he went before each of them as a member merely; so that there was no possibility of any general view of the student's work, or of any correction or judgment on the one part by the judgment on the other, except by certain notes which might be made on his paper. They thought also that the system of marking led to the uncertainty complained of. A student must get an average of eight marks in each, and this led to some men being rejected upon a very nice balance of comparative merit in one department which placed a veto upon him—the result being that rejection seemed to hang rather upon accident than upon legitimate examination; because if the same examiner had seen the man's paper work, who was not quite up to the standard in his *viva voce* examination, or *vice versâ*, he would often decide differently. Again, too much of the examination work was conducted "by the clock." The visitors felt certain that many candidates were unable to do justice to themselves in the time limited. (Applause.) If a candidate happened to drop upon a particular point in which he was not quite at home, or upon which he was ignorant, if he spent a little time in the consideration of that subject his chance was gone. (Hear, hear.) All this seemed to go too much upon the lines of an examination which searches for ignorance rather than for knowledge in the candidates. (Applause.) In the wide range of subjects now enforced it was impossible that every candidate should be thoroughly well up in every department of knowledge, and he might have the misfortune to encounter a point in which he was weak. The visitors were, on the other hand, satisfactorily impressed with those examiners whose object seemed to be to draw out the candidates' *knowledge* rather than their *ignorance*, and to get at the kind of knowledge and the manner in which it existed in the students' mind. They had observed some examiners who acted with great judgment and experience in helping a candidate when he was hesitating, and this economised time. They could not help feeling that the College of Surgeons of London would do well to take note of the feeling out of doors, supported as it was by the observation of impartial visitors—that deserving candidates were rejected in large numbers. He believed that in order to avoid this unfortunate result it would be necessary to assimilate the examinations to that of the College of Physicians, who gave more time in the *viva voce*, and who gave discretion to the examiners, with regard to time, in dealing with slow and nervous students. (Applause.)

The motion having been seconded by Dr. BANKS,

Mr. MARSHALL replied on behalf of the College of Surgeons. He said, if he could show that the general impression in question—namely, that the examination was too severe, and rejected deserving candidates—is not literally founded upon facts, the greater part of Mr. Teale's remarks would fall to the ground. The visitors had laboured under this enormous disadvantage, that their visits had been of the "come and go" order, and they had not been able to make an exhaustive examination of the system pursued at the College of Surgeons. Again, if they had examined the statistical results of a year's examinations, perhaps they would not have entertained the view they had expressed. He would not deny that individual cases of hardship occur, but it must be remembered that the College of Surgeons, passing under examination 1000 students in a year, must necessarily make more rejections than corporations who examined a limited number of students. Mr. Teale had limited his remarks to the primary examination, and he (Dr. Marshall) would therefore take the table which had been supplied to them, and would institute a comparison between the various examining bodies, by which it would be found that, if figures were of any use whatever, the rejections by the College of Surgeons of London were rather less than more than the average of the other bodies throughout the kingdom. He had studied those statistics for many years, and he believed that they showed most distinctly that the examination was not in any way severe or unfair, because if there were undue severity or unfairness it must certainly tell in the averages of rejected students throughout the United Kingdom. He did not complain at all of the visitors bringing the matter forward or recording their impressions. He believed it was a very useful thing that the managers of every institution should be reminded of such matters; but when the Council was called upon to give utterance to an opinion, they must take into account the result of the examinations, viewed broadly; and a comparison of the tables he had referred to showed that the College of Surgeons was actually lowest on the list in the number of rejections. Indeed, he might have come to that Council in fear and trembling lest it should be said that the body he had the honour to represent had been admitting men too easily. (Laughter and applause.) It did not do always to take the candidate's view of the cause of his rejection, nor his teachers' view, nor the visitors' view. The examiners were, upon this subject, superior to the visitors; they knew the kind of men who presented themselves year by year, they knew the difficulties of the student, and no doubt they felt pained at times when they were obliged to do their duty to their College. It was going a little too far to call the College of Surgeons to account for their rejections. Was it not the primary object of the Council to see that the profession should be well educated? They must have a very clear case indeed to venture upon passing a resolution which would have an effect in the opposite direction by lessening the strictness of the examinations. (Applause.)

The further consideration of this motion was adjourned until Saturday, the Solicitor of the Council having attended and made a statement in reference to the complaint against David Beatson Murdoch, the particulars of which were not communicated to the public.

The press being requested to withdraw, the following business (as appears from the published Minutes of the Council) took place:—"Moved by Dr. Quain, seconded by Dr. Storrar, and agreed to—That David Beatson Murdoch be summoned

to attend the Council on Tuesday, July 4, 1882, at 2.15 p.m." Strangers having been re-admitted, and the result in regard to Mr. Murdoch's case made known to them, the Council adjourned."

FIFTH DAY—SATURDAY, JULY 1.

The adjourned debate on Conclusion No. 10 was continued by Professor HAUGHTON, who said that he felt that Mr. Marshall had made a complete defence against the remarks of the visitors, and he must therefore vote against the motion.

Dr. SCOTT ORR supported the motion of Mr. Teale, and thought that some latitude should be allowed to provide for the cases of slow or nervous students. In the body that he represented, limitation of time had been given up, for the reason so well stated by the visitors. It was a fact that students did become nervous, and he was afraid many were now rejected, who, if they could be examined quietly in a room by themselves, and given some additional time, would be found to be eligible candidates. Five or ten minutes might be sufficient to test a very good candidate or a very bad one: it was the medium men who were so difficult to test in the short space of time allotted.

Dr. BANKS, in supporting the resolution, said he must disclaim any idea of throwing blame upon any examiners, but, speaking from his experience of the final examinations in the University of Dublin, he could say that over and over again candidates had complained to him that the time was too short. He could not agree with Dr. Haughton that slow men were necessarily stupid men. He had found men answering a portion of the written examination, sometimes not more than half or two-thirds, but their answers were excellent, and they had complained that they had not sufficient time to do the rest. He could not help repeating the observation that had already been made, that some examiners (he rejoiced to think that they were few) appeared to endeavour to get out, not what a candidate knows, but what he does not know.

Dr. LYONS said the Council was much indebted to the visitors for bringing this important subject forward, because it included an important question of principle. Speaking with many years' experience as an examiner, he believed that this was a matter which called for the interference of the Council. It must be borne in mind that the purpose of the Council was to provide for the service of the public a sufficient number of qualified men as general practitioners, not to arrive at some theoretical standard of imaginary excellence. The test of true examination ought to be that of a man going over his ground in a reasonable time to satisfy a reasonable examiner—not a race against time. (Applause.) There was a class of students whose minds moved slowly, and who very imperfectly took in the questions of an examiner. The capacity for examining is infinitely rarer than the capacity for teaching, and many excellent teachers are very bad examiners. The race between examining and teaching was something like that of guns *versus* fortifications. First the guns are improved, and then the system of fortifications. The desideratum is to find out not what is the most perfect system of examination, but what is the best mode for testing that amount of knowledge and capacity on the part of a candidate which shall fit him for the discharge of his duties. It was not to be expected that the Colleges could be perpetually turning out Abernethys or Astley Coopers, and nothing was commoner than to find men who made a comparatively poor figure as students, turning out great in their profession; while, on the other hand, men who by cramming or otherwise had over-trained themselves during their college career, were often never heard of afterwards. (Hear.) Some of the bodies seemed to glory in the number of rejections, but that was no good test of the value of an examination. One might as well test the value of a victory by the number of killed and wounded; whereas it was well known that some of the most important victories had been achieved with the smallest loss of life. In fact, it might be a question whether a large proportion of rejections might not show incompetency on the part of the examiners themselves. In the Army and the public services it was now recognised that competitive examination had failed on its merits, and that a considerable portion of able, useful, and competent men were thrown out of the public service annually by the system.

Mr. MACNAMARA said this conclusion appeared to be founded upon what the visitors observed in the College of Surgeons in Ireland. It should be borne in mind that the fifteen minutes allowed on a given subject was supplemental to the previous examination in writing. He had heard no complaints from students of not having had sufficient time allotted to them; in fact, the ordeal was so trying to the rejected that he believed the longer they were under examination the more they regretted it. In this as in other matters the Council ought not to go into details, but leave something to the discretion of the corporations and their examiners, who might be depended upon to have the good of the profession at heart. (Applause.)

Professor TURNER said that, as an examiner, he had learned the great importance of having a certain latitude in dealing with slow or nervous students. He had found the greatest personal comfort in it, because it was a hard thing for an examiner to go home and think, "I had not time to do justice to the examination of such a one." He had found a great difference in the three nationalities. As a rule, the Irishman was far sharper than the Scotchman at an examination—he had his answer much more "pat." (Laughter.) He would not say it was so correct as the Scotchman's; but the Scotchman was more cautious, and liked to have time to think before he gave his answer. Allowance must be made for such difference in temperament, because with a sharp man you would get double the number of answers in a quarter of an hour, that you would from a slow man, who might, nevertheless, possess the same amount of knowledge. On these grounds, he must support the resolution of Mr. Teale in its modified form.

Professor HUMPHRY could not understand the phrase that had been used, that "some examiners tried to ascertain how much a man did not know, instead of what he did know." In his mind it was impossible to do the one without the other. Again, Dr. Lyons had drawn a contrast between examination and education, and illustrated it by the struggle of guns *versus* fortifications; but this was not a fair analogy, because in the case of examination and education the one was auxiliary to the other. As a teacher of some experience he could say that he very seldom found a man passing the College of Surgeons of England examination when he thought he ought not to pass, or being rejected when he had expected him to pass. He did not believe that the fixity of time was disadvantageous. It was certainly advantageous to the examiner, because directly the candidates came before him, knowing that he had no time to lose, he went to work with the students. The period of nervousness to the candidate was coincident with the period of suspense when he first entered the presence of the examiner; and he had observed that when once the examination commenced, nervousness was discarded. Again, nervousness was certainly an element which ought to tell against a man. It was a fault, and especially in one who proposed to follow the career of a medical man. The visitors had expressed astonishment at the difficulty of some of the questions, but that was explained from the fact that an examiner, if he had a clever man before him, and was satisfied of his capacity, liked to play with him a little, and the candidate also enjoyed it, and thus, during the last five minutes of the interview, advanced questions might be put; but it must not be supposed that these would form any part of the average examination of candidates. He agreed that in the case of a man of medium attainments a little relaxation of time would be valuable, and for that reason he would assent to the motion, although he believed, as a rule, fixity of time was really beneficial.

Dr. FETTIGREW supported the motion because he considered students should have every advantage given to them. It was for the public to cultivate training rather than examination. Examination was mainly a test of memory, therefore let training lead, and let examination take a secondary position; because training developed all the faculties. Great care ought to be exercised not to reject competent men, because rejection was most disheartening to deserving students. (Applause.)

Dr. HALDANE said this was a matter of detail into which the Council should not enter; and in the course of his remarks gave an amusing instance of the readiness of reply on the part of an Irish student, whom he asked what medicine he would prescribe in a certain case, to which the student replied, "A sharp purge." Questioned as to what

he considered a sharp purge, the student answered, "One grain of elaterium, an ounce of Epsom salts, and six ounces of infusion of senna." He was asked what would be the nature of the evacuations in such a case, to which he replied without a pause, "That, sir, would depend entirely upon what the man had inside him." (Loud laughter.)

Dr. PITMAN, replying to an observation of Professor Humphry, that nervousness in students was mainly a sign of ignorance, said he knew of an instance of a man who was going in for honours, and yet was in an astounding funk lest he should be plucked, although, after an examination by London teachers, his chances of honours had been pronounced to be excellent. This was not unnatural, because the young man's prospects in life would be damaged and he would displease his parents if he failed. The relaxation of the limit of time should, in his opinion, be left to the discretion of the examiners.

Dr. QUAIN agreed with Dr. Haldane that the examiner owed a duty to the candidate, and if he felt ten minutes or a quarter of an hour was not enough he ought to be able to extend the time. What could be more dreadful than to reject a man who, with five minutes more time given to him, might get over his nervousness and show himself competent to pass? (Applause.) He would like to add to what had been said on this subject that it was not only true that some examiners appeared to try and find out the ignorance of candidates rather than their knowledge; but there was another fault which might be called a crime—that some examiners appeared to be trying to display their own knowledge rather than that of the students. (Applause.) He trusted that these matters would not be lost sight of in the discussion of this important subject.

Mr. SIMON dissented from the opinion that this was a matter of minute detail which the Council should not interfere with, because the question was whether the examinations were as certain in their results as they might be. This was a serious question, because it was a matter of supreme importance that all persons should be able to expect the greatest obtainable certainty with regard to the result of examinations. It was not only true that *judex damnatur cum nocens absolvitur*, but the converse was also true. There were men slow of mind, slow of speech, and of clumsy utterance; and, as an examiner, he had been in this position—that at the end of ten minutes he could not for the life of him have said whether the candidate ought to have his pass mark or not. On those grounds, he agreed with the conclusion of the visitors.

Sir WILLIAM GULL remarked that this was a valuable discussion. He felt that the student was not sufficiently considered in this question of examinations, and he was quite sure from his own knowledge that many men were rejected under the present system who ought to pass. There was no doubt that students are in a great state of fear when they come up for examination. He remembered one particular case where, under *viva voce* examination, Professor Daniel asked a student a certain question on chemistry. He said: "Do not ask me any questions upon that, for really I am very ignorant upon the subject." Now, what would have occurred at the College of Surgeons? He would have had a veto mark at once; but Professor Daniel dealt quietly with the student. "Come," he said, "you have written a very good paper; now let me repeat that question and see what you know about it." The question was repeated, and not only did that student pass, but he gained first-class honours. (Applause.) He did not wish to bring any accusation against the examining bodies, but he did assert that examination is by no means the certain thing that it ought to be. The Council had been for years dealing with education, and screwing up the licensing bodies to a high standard; he thought they might come down on the examiners now and then with advantage. ("Hear, hear," and laughter.) There were hypercritical examiners—cruel-minded men—who came down upon students, and who were well known to students, so that men went up before them with terrible fear. He maintained that it ought not to be possible for candidates to go up to an examination with that fear and doubt in their minds. Mr. Teale had most clearly showed that, although the proportion of rejections was known beforehand, it was impossible for the teachers to say which of their students would be amongst that proportion. (Hear.) Twelve students would go up, and all the teacher knew was that a certain percentage would be rejected; he did not know which of the twelve would be rejected. (Cheers.)

Dr. AQUILLA SMITH: They keep up the average there. (Laughter.)

Sir WILLIAM GULL: Yes; if twelve go up, three will be rejected. Aye! but which three no one could say beforehand. (Applause.) It was the duty of the Council to encourage students as much as possible, and to supervise their examinations so that an industrious man might be quite sure, if he did his duty, he would be fairly dealt with and might count upon success.

Dr. PETTIGREW complained, in connexion with this subject, of the enormous extent of the curricula, and said he had known examiners, who, finding a man weak upon a subject, pertinaciously stuck to it, instead of going over a larger area and finding out what the man did know. He strongly advocated elasticity in this matter of time.

Dr. STOKER had a strong opinion that there is such a thing as nervousness in examination. He would tell a story which he hoped would cap the story of the "sharp purge," and which he heard from Professor Sharpey, who was examiner to the University of London, and was called upon to examine candidates in Arts some thirty-five years ago, when that University required a knowledge of human physiology from Arts candidates. Mr. Sharpey, being a judicious man, thought he would put a very simple question to a candidate who appeared before him. He said: "Well now, can you tell me anything about the circulation of the blood?" The man said: "Well, the blood goes up to the heart, and down one leg, and up the other." (Much laughter.) Mr. Sharpey was blessed with a wonderful faculty of self-composure, and he was able to ask the next question with a serious face—"Then will you tell me how does the blood manage to get across from one leg to the other?" (Laughter.) He mentioned this as an illustration of the laughable stories that one heard at every university; which went to prove that students got into a state of mind so peculiar that their answers at the time of examination conveyed no representation whatever of their intellectual powers. (Applause.)

Professor HAUGHTON said, notwithstanding every disclaimer, there was an impression upon his mind, upon reading the Report of the visitors, and this proposition No. 10 in its original form, that there was an indirect charge against the College spoken of, that, owing to the absence of some such rule as was now proposed, injustice had been done to some of the candidates. To his mind that charge was completely unproved, because the figures which Mr. Marshall read entirely disposed of it. He would like to ask Mr. Teale whether the visitors were of opinion that substantial injustice had been done.

Mr. SIMON pointed out that the visitors were only speaking of the tendency of the system.

Professor HAUGHTON: A tendency founded on facts. There is a tacit charge.

Sir WILLIAM GULL said it would be most improper to bring up particular cases. The visitors simply meant that there is a tendency in this system, and there is an impression in the large schools that a great uncertainty exists as to the result of examinations; in other words, that a man may be well informed, and yet be rejected.

Mr. MARSHALL protested against the accuracy of that impression, and said he must inform the Council that if this resolution were to be associated with the idea that there is such a tendency in the College of Surgeons' examinations, the examiners of that body would undoubtedly send some reply to the allegation. He was quite sure that there is no such implication against them whatever in the minds of this Council; but indirectly the approval of this resolution would convey the idea. He did not complain of anything in the Report, but he thought the Council should be very careful how it took action in the matter; it might safely leave it to the discretion of the examiners. As to the extension of time, in nine cases out of ten the candidate would only get deeper into the mire if it were allowed him. And if doubtful cases were to be further inquired into, you would only get into this further difficulty, that you must again subdivide your rejected candidates into two classes, and so there would be no end to the number of doubtful cases.

Dr. LYONS instanced the case of a man of brilliant attainments, who took his first-class at Trinity College and was a prizeman of the University of Dublin, besides being highly placed in the Indian Army examination—a most favourite

pupil of his own and of Dr. Banks. Personally he was so much attached to him that they corresponded during his examination, and on the last day he wrote to say that he was in such a condition of nervousness that he felt sure he had entirely wrecked his prospects, lost all chance of passing, and disgraced his former career. Shortly after a telegram arrived, saying that he had come out first and attained the highest honours. This was an additional proof that men who were of a highly nervous temperament were very often high-class men.

Mr. TEALE, in replying, wished finally to disclaim any idea of casting any sort of reflection, by the resolutions which had been proposed, on any of the examining bodies.

The PRESIDENT, before putting the resolution, said that nobody who looked at the propositions put in by the visitors would doubt for a moment but that they were the result of convictions forced upon their minds after an elaborate study of the various examinations throughout the whole of the country. Instead of recrimination between the bodies as to the number of persons who passed, but who ought not to pass, the Council had had a most serious and quiet discussion to ascertain whether or not it was true that some of the examinations were uncertain, and whether that uncertainty did not result in the rejection of really good men. He was only surprised that, considering the severe intellectual strain brought to bear upon students, there should be any doubt that many excellent men occasionally failed, not from want of knowledge, but from want of power to endure the severe strain put upon them.

The resolution was then put and carried, there being five dissentients.

Mr. TEALE then, by permission of the Council, deferred moving his remaining resolution till Monday, and

The Council resumed,

The next business on the programme of business being the adjourned consideration of communications in regard to a medical practitioner registered on September 22, 1877, with the qualification "Lic. Apoth. Hall, Dubl., 1877."

Mr. MACNAMARA, in commenting on the course adopted by the Executive Committee in regard to these communications, said they referred to a matter upon which the South Australian Branch of the British Medical Association had forwarded a complaint against the Apothecaries' Society of Ireland. The letter was numerously signed, and the case fully stated, and, in accordance with the rule of the Council, it had been referred to the Executive Committee to ascertain the facts of the case. The communication having then, by order of the Executive Committee, been referred to the Apothecaries' Hall of Ireland, with the request that the Hall would furnish an explanation, in order that it might be laid before the General Council, an explanation was accordingly sent. Under these circumstances, the Executive Committee had taken it upon themselves to forward the answer of the Apothecaries' Company to the South Australian Branch of the British Medical Association. He (Mr. Macnamara) could not understand why such steps had been taken. Did the Executive Committee propose that the functions of the Council should be transferred to the South Australian Branch of the British Medical Association?—because virtually that was what had been done. The Governor of the Apothecaries' Society sat on the Council, and he (Mr. Macnamara) could not understand why the Council should not have an explanation at once, and settle the matter, rather than allow the charge to hang over the head of the Apothecaries' Society for perhaps another twelve months. No doubt the Governor of the Apothecaries' Society would be in a position to satisfy the Council that the Society had acted within its legal rights, and if so the Council had a right to express an opinion to that effect. In conclusion, he would move that the subject should now be taken into consideration by the Council, the competent authority to decide upon it. If, after hearing the Governor of the Apothecaries' Hall, any motion should be rendered necessary, let it be put before the Council, and an end made of the matter.

Professor HAUGHTON seconded the motion.

Mr. SIMON remarked that the fact that the Executive Committee had transmitted the answer of the Apothecaries' Society to the South Australian Branch of the British Medical Association did not preclude the Council in any way from pronouncing judgment on the matter.

Dr. PITMAN reminded Mr. Macnamara that if the Executive Committee had intended to deal finally with the complaint it would not have been brought before the Council at all. It was laid before the Council with the very object that the Council might know what had been done, and take what action they thought requisite.

Mr. COLLINS said that he should be extremely glad to get rid of the disagreeable subject as quickly as possible, but he did not see the advantage of taking up the time of the Council if the matter was to be gone into again next year, or when a further communication was received from Australia. If it were to be taken for granted, however, that sufficient time had been given to the gentlemen in Australia to send back any counter-reply, then he would propose that—"The Medical Council having heard the answer from the Apothecaries' Hall, and further, the explanation from its representative at the Medical Council, no further action be taken in the matter." On Monday, or on any other occasion, he should be prepared to justify and to prove the legality of what had been done by the Apothecaries' Society of Dublin.

After some further discussion,

The PRESIDENT ruled that the discussion was irregular, no notice of motion having been given upon it.

Dr. PITMAN then moved that the following Report by the Pharmacopœia Committee be received and entered on the Minutes:—

> The Committee have to state that after due inquiry they have not obtained sufficient information to enable them to report in accordance with the terms of the Council's resolution, "That it be an instruction to the Pharmacopœia Committee to report to the Council year by year as to addenda."
>
> The Committee report further that the present stock of the last edition of the Pharmacopœia amounts to 2556 copies, and that the average annual sale is about 1000 copies; thus a fair estimate may be obtained as to the period at which it will become necessary to supply a new edition. With a view of taking steps towards the publication hereafter of another edition of the Pharmacopœia, the Committee make the following recommendations:—
>
> (1) That the Pharmacopœia Committee be a standing committee until the issue of the work.
>
> (2) That the Committee be authorised to appoint from amongst its own members a sub-committee; to assign to it such duties as it may think fit; and to take such other steps as may be necessary for fulfilling the duties assigned to it.
>
> (3) That a sum not exceeding £100 per annum be placed at the disposal of the Committee.
>
> June 30, 1882. RICHARD QUAIN, M.D., Chairman.

Dr. AQUILLA SMITH seconded the motion.

Dr. STORRAR said he should like to have had a little more detailed information as to what opinions the Pharmacopœia Committee held as to the future preparation of the Pharmacopœia. All committees, whether appointed directly or indirectly by the Council, ought to report in full detail, and not to take any important step without the sanction of the Council.

Dr. QUAIN said it was proposed that the sub-committee should take steps to appoint editors, who would draw up a report, to be submitted to a future meeting of the Council, as to what should be done with regard to the Pharmacopœia.

Dr. STORRAR said he should be quite satisfied if, before any step was taken to issue the new Pharmacopœia, the Council had the fullest information, so that it might go out to the public with the *imprimatur* of the whole Council.

In answer to a question by Professor Turner as to whether the Pharmacopœia Committee intended to take the advice of experts,

Dr. QUAIN said it was proposed to follow the course adopted with regard to the preparation of the second edition of the Pharmacopœia—namely, to employ editors, who would edit the work under the control of the Committee, such editors being experts.

Mr. SIMON hoped that one or more of such editors might be persons well acquainted with foreign pharmacology.

The motion was then put and carried unanimously.

Dr. CHAMBERS then moved—"That a committee be appointed to consider the abuses which arise from the employment of unqualified assistants by registered practitioners, and to report to the Council whether any means can be adopted for checking these abuses without diminishing the conveniences of the present practice." It was not necessary to go through all the evils attending the system as far as the public were concerned. His (Dr. Chambers') principal reason for moving the resolution was not so much to protect the public as to prevent the injury which was being done to the profession both with regard to its good fame and its profits. The public, from the employment of unregistered prac-

titioners (especially in the North of England), were getting into the habit of thinking unregistered practitioners were as good as registered practitioners. In the West Riding of Yorkshire it was very common for the owners of collieries to employ registered practitioners to attend the colliers, but the colliers cared very little about being attended by them, and generally consulted some quack or unregistered man. For instance, in the case of a colliery where a licentiate of the College of Physicians (who afterwards became a member, and before his death a fellow of the College) was paid a salary for attending those who worked in the colliery, they did not care to be attended by him, and on his inquiring the reason the underground steward said—"Well, the fact is, when anything serious is the matter we like to go to the regular bone-setter"—the "regular bone-setter" being therefore considered by them the orthodox practitioner, and the orthodox practitioner the irregular practitioner. The serious evils to the public which the general prevalence of irregular practice gives rise to should be dealt with as a separate question. What he (Dr. Chambers) wanted to call attention to was the injury done to the good fame of the profession rather than the injury done to the public. The public were protected by law, but the profession were not protected at all against the proceedings of irregular practitioners.

Mr. Bradford seconded the motion.

Sir William Gull said no doubt Dr. Chambers' intention—viz., to defend the fair fame of the profession—was an admirable one, but the motion was really *pro bono publico*. It was not necessary to go as far as Yorkshire to find bone-setters, because there were bone-setters in London, and bone-setters who were much more believed in than the most experienced Fellows of the College of Surgeons, but still it was beyond the power of the Council to have anything to do with them. What they had to do was to see that the persons whose names appeared on the Register were suitable persons.

Mr. Simon, in supporting the motion, pressed upon the members of the Council the necessity of giving some explanation to the profession of what they thought an abuse of the employment of unqualified assistants, and also what they considered to be the class of cases in which the Council ought to interfere for the protection of the public. The profession should know what the Council thought to be such an illegitimate employment of assistants as to constitute a fraud on the public, because where a fraud on the public was committed it was clearly the duty of the Council to protect the public.

Dr. Aquilla Smith supported the motion generally, but objected to the concluding words "without diminishing the conveniences of the present practice," as they seemed to give a countenance to the employment of unqualified assistants.

Dr. Chambers agreed to the withdrawal of the words objected to.

Mr. Macnamara, whilst agreeing with Sir William Gull that the business of the Council was to keep the Register free from the names of unsuitable persons, and that that would prevent the Council dealing with the class of persons the motion was directed against, reminded Sir William Gull that there would be no unqualified assistants were there not the names of improper persons on the Register. Those were the persons the Council ought to endeavour to reach.

Professor Haughton said it had come under his notice that persons much more intelligent than the miners mentioned by Dr. Chambers employed unregistered persons. His Grace the Archbishop of Dublin employed bone-setters about six months ago.

The motion as modified was then put, and carried unanimously, the nomination of the Committee being reserved till Monday.

The Council then adjourned.

Sixth Day—Monday, July 3.

Conclusion 11.—"That, with a view to economise the time of the examiners, it is desirable that when a candidate has obtained rejecting marks in the written examination, he should not be required to proceed with the oral."

Mr. Teale, in introducing this subject, said the system recommended by this conclusion was in full work in the College of Surgeons, Ireland, and in the College of Physicians and Surgeons, Edinburgh. The former body replied, in regard to this question—"The Council do not agree with the proposal that our written examination should be carried out at the several educational centres in the same manner as in the Oxford and Cambridge Local Examinations, etc., among other reasons, because, the examinations being held monthly, the number of candidates at each examination is comparatively small, and therefore no delay takes place between the written and oral examinations." The visitors fully appreciated the difficulty of examining large numbers of students; and as they were recommending some reforms which would entail additional time, they considered it was only fair to the examiners to make this suggestion, which would have the effect of economising their time. After paying a high tribute to the amount of ill-remunerated work which scientific men throughout the kingdom were willing to give for the good of their colleges, by devoting their energies to examinations. Mr. Teale went on to say that it appeared to the visitors that it was a mere waste of time to proceed with the examination of students who had shown by their written papers that they must in any event be rejected.

Mr. Macnamara, in rising to second the motion, bore testimony to the value of the adoption of this system by the Royal College of Surgeons in Ireland. Either written examinations are important, or they are not, as tests of knowledge. If they were, and the man showed by his written answers that he was utterly unable to pass, it appeared to be entirely a work of supererogation to continue the examination of such a candidate. In connexion with this subject he believed it would be a valuable concession to students and examiners if a great portion of their previous examination were conducted at local centres, the papers being sent up to the examiners of the College, who would frame a list of those that had passed, and would send word to those who had not passed, that it was not necessary for them to come up to be examined. This would lessen the number of candidates for the practical examinations, and would do away with many of the evils at present complained of from overcrowding. He felt that this was a conclusion which the Council would not at present endorse. On the other hand, in process of time the words of Mr. Teale in introducing it, which had fallen so convincingly on the ear, would bear their fruit, and ultimately the Council would see the wisdom of adopting this most valuable conclusion, which had underlying it the important practical bearings to which he had referred.

Dr. Watson said although the conclusion pointed chiefly to the consideration of the examiner's time, there was another question which might be well considered in connexion with it, and that was the time of the unfortunate rejected candidates. It appeared to him to be a great hardship that a candidate who had passed well in certain subjects, but was rejected perhaps on the ground merely that he had failed entirely to satisfy an examiner upon one subject, should be obliged to undergo the mortification of a complete rejection, and should have to come up again to pass a complete examination in all his studies. This question had an important bearing upon the prospects of the great mass of unqualified assistants whom it was desired by the Council to get rid of, because this class consisted mainly of candidates rejected in their second examination in the practical departments of medicine, surgery, and midwifery. He urged that some instruction should be added to the conclusion which would point in the direction of advising the examining bodies to take into account the case of candidates who, after having passed in almost every subject, were rejected in one or more—allowing such men to come up to a fresh examination in those subjects only in which they had failed.

Mr. Macnamara: That is the practice in the College of Surgeons in Ireland.

Dr. Watson said some men were so constituted mentally that they could not get up the vast number of subjects now required at one and the same time. And this especially applied to the unqualified assistants, who had but comparatively little time to spare from their professional duties: he therefore proposed a rider to the resolution of Mr. Teale, to provide for these cases.

Mr. Simon begged leave at the earliest moment to enter a *caveat* against the principles affirmed in the latter part of Dr. Watson's speech. It would be striking at the very root of the Council's work in the matter of examinations if the

principle of passing by instalments were recognised for an instant. (Loud applause.) The meaning of a licence to practise was that the man to whom it was granted is in possession of a certain amount of knowledge—it was not the mere registration of an historical fact that at one time of his life he was in possession of that knowledge. Therefore he must enter an earnest protest against the recognition of any such idea. As regards the proposal of Mr. Teale, while he was disposed to regard it favourably, he questioned whether it was worth the while of the Council to press it against the wishes of a body like the College of Surgeons. The economy of time effected would be very small; and these considerations made him hesitate to vote in favour of the motion.

Professor HUMPHRY, agreeing with much that had fallen from Mr. Simon, said that the "conclusion" logically led to the consummation recommended by Dr. Watson, and this was apparent from the fact that the College of Surgeons in Ireland, upon whose practice this conclusion was founded, actually permitted the piecemeal passing of examinations. He agreed with Mr. Simon in regarding that as a most objectionable plan, and it was one which ought, in fairness to the candidates, to be rejected. Because it a student were remitted to his studies upon failing to pass the paper examination, he ought at least to have the corresponding advantage of having the experience of going through the whole examination. And a very great advantage it was. (Applause.) In his large experience he had often been surprised at the improvement that took place in candidates, who, having failed to pass, returned to their studies with an amount of experience and insight into the matters upon which they had been examined, which had surprised their teachers and told very favourably upon their subsequent studies. Moreover, the saving of time would not be very great; but that was not the real point. The question was, what is the best means of examination for the students, having the end in view of testing their fitness to enter upon the practice of their profession? (Applause.)

Dr. QUAIN said that this was a very interesting discussion to examiners, but the great influence which the Council had been able to exercise upon the education of the profession had not been obtained, and would not be maintained, by petty interferences of this kind with the details of examination, which ought to be left to the discretion of the bodies themselves, who were the parties really responsible for the efficiency of their examinations. (Applause.)

Mr. MARSHALL showed, by an analysis of the returns, that a very slight saving of time would be effected—about one hour a day. The examiners were content to sacrifice that rather than give up the value which they attached to the present system of all-round examination. In addition to what Professor Humphry had so well said against the idea of piecemeal examination, he desired to point out some of the evils which might result from it. Men would come up and "take a shot" at an examination, not expecting to pass the whole, but only a part, for which purpose they would cram; and the introduction of such a system would be destructive to the pass examination as a test of the fitness of the candidates to practise their profession. (Applause.)

Professor HAUGHTON said that as the representative of a distinguished University he felt shocked and terrified at some of the fossil principles that had been dug up in the course of this discussion. He knew something of the nine Muses, and he had heard of the three Graces, but he was content to be hanged if he could bring himself to understand what the four Vetoes were. (Much laughter.) Mr. Marshall, on behalf of the College of Surgeons of England, had said that they were good enough to provide different examiners for the oral and written examinations of students, so that their action would be quite independent; but they were kinder still at the College of Surgeons, Ireland, because they allowed twenty-four hours to elapse between the two examinations, which enabled students to patch up the weak points of their papers on the *post mortem*. (Laughter.)

Mr. MACNAMARA: Certainly not.

Professor HAUGHTON: What did you say, then?

Mr. MACNAMARA said the learned Professor had set up a man of straw who did not exist, in order to have the pleasure of demolishing him. What he had said was that an examiner might examine on the subject of a written paper, but he certainly would not examine a man on his own written paper. There was never any attempt at patching-up allowed—it was only an emanation from the fertile brain of Professor Haughton. (Laughter.)

Professor HAUGHTON begged to apologise, but failed to see any difference between Mr. Macnamara's statement and his own. The resolution before the Council was open to very strong objection. He objected to a candidate being stopped at the end of his written examination. In the body that he had the honour to represent they thought the oral ten times more important than the written examination; and personally he would pass over as a minor matter any blundering answers to the written questions if a student came up afterwards and passed a brilliant examination on the dead body and in the chemical laboratory. But no candidate should be judged by a partial examination. His work should be taken as a whole, and by that he should stand or fall. He objected to the *morale* that dictated this conclusion of the visitors; it was the convenience of the examiners, and not the good of the candidates. He urged upon Mr. Teale to withdraw the motion.

Mr. MACNAMARA asked Professor Haughton how it was that at Trinity College the pupils were examined in groups, and if he had passed one group he was entitled to hold that in reserve, and go in when he pleased for his second group, which was as piecemeal a system as anything that could be conceived. With regard to the system pursued at the College of Surgeons, London, they had heard from Mr. Marshall that no matter how good a man's examination might be as a whole, if he had had the misfortune to have a nought put on his paper work he would be rejected.

Dr. SCOTT ORR expressed entire concurrence with the views of Professor Humphry as to the great advantage the students derived from passing through the entire examination, even when as a result they were rejected.

Dr. HALDANE said he had objected to the tenth conclusion, and he must object to this on the same ground—that it is a matter of detail which should be left to the discretion of the examining bodies.

Sir WILLIAM GULL felt unable to support the resolution, because it was no part of his duty to provide for the economy of the examiners' time. The resolution was *ultra vires* as being based entirely upon that consideration. He moved the previous question.

Dr. LYONS seconded this motion; and Mr. TEALE having replied, the previous question was lost; and the original resolution having been put to the vote, was negatived, only two hands being held up in its favour.

Mr. TEALE, in moving the 12th Conclusion—"In any future revision of the curriculum, the subjects of hygiene, ophthalmology, and mental disease will demand serious consideration, and perhaps admission, under careful limitation, as distinct elements of examination,"—said the Council had been urged several times to press upon the examining bodies ophthalmology, mental disease, and the other subjects enumerated in this conclusion. This was a very large and difficult question for the Council to consider—viz., what relation certain departments of medical science, which had been erected into specialities, should bear to the education of the general practitioner? All would agree that it was not right that a medical practitioner should go forth to practise without knowing something about ophthalmic disease; and the same argument might be used with reference to the others. The question remained, how much of each ought to be required. At present perhaps the Council was not in a position to lay down any special rules with regard to this. His feeling was that the general practitioner ought to know such portions of those specialities as would come under his treatment absolutely from beginning to end, and such cases as would come to him in the first instance, and have afterwards to go to the specialist; therefore he ought to know as much of these as of any other branch of professional knowledge. Take the department of ophthalmology: any practitioner ought to be able to undertake a case of iritis or purulent ophthalmia, and he ought to be able to recognise such a disease as glaucoma; he required to have, as it were, a bird's-eye view of all the specialities. There should be a distinction between the teaching and the examination upon such subjects; and with regard to the former, there should be a short course of lectures from a specialist. He concluded by moving the adoption of the conclusion.

Dr. BANKS seconded the motion, and laid great stress upon the importance of some special knowledge of mental

disease on the part of the general practitioner. It might be one of his very first duties, on commencing practice, to give an opinion which would either permit an alleged lunatic to go at large, or involve the deprivation of his liberty. This subject having been brought before the Council two years ago, was then shelved, and he trusted some deliverance would be given upon it during the present session. The University of London insisted upon three months' study in a hospital or an asylum for the treatment of mental disease; and in a university in which Dr. Lyons and himself were interested this system had been introduced into the curriculum of study—in fact, they had so far recognised the importance of it that they required six months' attendance from every student at a lunatic asylum. He would move as a rider to Mr. Teale's resolution—"That in consideration of the absolute need that exists for knowledge upon the subject of mental disease, it be a recommendation by the Council that in any future reformation of the curricula the subject of mental disease be made part of the examinations."

After some further discussion, the resolution before the Council was modified into the following form:—"That it is desirable that the subject of mental disease should have serious consideration in any revision of curriculum and examination rules."

Mr. TEALE then withdrew the resolutions he had prepared with regard to hygiene and ophthalmology.

Dr. AQUILLA SMITH suggested that as the Council had passed a resolution as to mental disease it would be better to pass a resolution that the Council declined to express any opinion as to hygiene and ophthalmology, in order that it might appear on the Minutes that those questions had come before the Council.

The PRESIDENT said an opportunity of dealing with the matter would be afforded to the Council when the Council resumed.

Mr. TEALE then intimated that he wished to withdraw from the consideration of the Council the final conclusion of the visitors, which was headed, "Suggestion by Dr. Gairdner and Mr. Stokes," and was as follows:—"That, considering the great importance of preventive medicine and hygiene to the general practitioner, these subjects ought to form a more independent part than they do of the examinations of all corporations."

Mr. SIMON suggested that, this being a case where the visitors had expressed a particular opinion, the Council might say, without committing itself in any respect to the recommendation, that it had taken note of the opinion, so as not to allow it to pass unnoticed. The importance of the subjects of hygiene and preventive medicine to the general practitioner was very great, but he felt that he could not have taken part in recommending that these subjects should be made distinct elements of examination, or that they should form a more independent part than they did of the examinations. The question of the division of the great subject-matter of medicine was one that must be left to the discretion of the individual schools. It mattered not whether the logical division was made in one way or another. Hygiene might be taught as part of physiology, and preventive medicine might be taught in connexion with the etiology of particular diseases. These subjects should be taught and examined in, but they should not be made the subjects of separate examination. Putting it shortly, he would say that questions upon these subjects might properly form part of any general examination for licences, and ought, in such examinations, to be of not very infrequent occurrence. (Hear, hear.)

Mr. MACNAMARA then moved—"That this Council note with approval the suggestion, so far as hygiene is concerned, by Dr. Gairdner and Mr. Stokes." From the fact that the last conclusion of the visitors appeared in connexion with the names of Dr. Gairdner and Mr. Stokes, it was to be inferred that Mr. Teale did not agree with that portion of the report, and therefore it was not extraordinary that he had not moved any resolution upon it; but he (Mr. Macnamara) felt so strongly upon the matter, so far as hygiene was concerned, that he had ventured to propose the resolution before the Council. Lunacy had long since been recognised as a portion of medicine, and ophthalmology as a branch of surgery. Hygiene was not sufficiently attended to by the various licensing bodies—his own, no doubt, amongst the number. The College of Surgeons in Ireland forty years ago appointed a Professor of Hygiene, who had given lectures annually to the classes, but no examinations had taken place on the subject. Men obtaining the licence of the College of Surgeons in Ireland frequently took charge of steamers or emigrant ships, or dispensaries in Ireland; and under those circumstances it was most important that they should know something about hygiene, especially as the appointment of a man to a medical dispensary made him *ipso facto* a medical officer of health.

Mr. COLLINS seconded the motion.

Mr. SIMON then handed in an amendment—"That, considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Council takes note of the suggestion of Dr. Gairdner and Mr. Stokes, that these subjects ought to form a more independent part than they do of the examinations of all corporations."

Mr. TEALE seconded the amendment, and, in answer to Sir William Gull, explained that his reason for not bringing forward a resolution as to hygiene was because he considered that the Council had settled the principle in reference to mental disease, as to whether it should or should not express an opinion upon the subject. His reasons for not agreeing with the suggestion of Dr. Gairdner and Mr. Stokes were, in the first place, because he thought nothing should be added to the present curriculum without its entire revision, and secondly, because the term "hygiene" would require great consideration in order to settle what it included. He did not think the Council should insist on the general practitioner getting up the large subject of hygiene, either now, or probably at any future time. Medical students were, however, in fact, being educated in many of the essential principles of hygiene.

Mr. PETTIGREW thought the proper time to discuss the matter would be when they next revised the curriculum, at which time any new subject might be considered and assigned a proper place. If, however, any new subjects were crowded in, the time assigned for the student's study should be lengthened from four years to five years, or the student would be overburdened, and then students would probably ask themselves whether it was worth their while to spend five years in order to become doctors or surgeons. The Council should be careful not to introduce too many subjects.

Dr. LYONS then moved as an amendment that Mr. Simon should omit from his amendment the words "preventive medicine." It was generally pretty well understood what was included in the term "hygiene," but he would ask Mr. Simon to define the meaning of "preventive medicine." He thought it was very undesirable for the Council to give currency and countenance to the sort of medical *argot* of the day which was in use. The term "preventive medicine" meant, he supposed, the doctrine and ways and means of preventing disease; but that was not effected so much by the use of medicine as by the operation of hygienic agencies, which were put in motion in order to limit disease. He regarded with great jealousy the use of these vague and loose terms, especially by the representatives of medical bodies sitting with high judicial functions. He would not go the length of saying that disease might not be prevented, but questions of the most profound character were included in the subject, as to the origin of disease, the mode of operation of disease, the causes of contagion, and so forth, and it was undesirable that the Council should do anything to commit itself with regard to so important a matter. Practically, the subject intended to be aimed at was covered by the word "hygiene," and he would move that the words "preventive medicine" be omitted, unless Mr. Simon would substitute for them "the modes and means of preventing disease."

Dr. AQUILLA SMITH seconded the amendment.

Mr. SIMON remarked that the words were those used by the visitors, and that appeared to be a good reason for retaining them. But he was astonished at the objection taken by Dr. Lyons. "Preventive medicine" had been one of the most current phrases on this side of the Channel for the last twenty years, and to hear that term designated *argot*, which was French for slang, filled him with amazement. Nobody would pretend that the term "preventive medicine" was slang, unless on the ground that the English language was used differently on the other side of the St. George's Channel.

Professor HAUGHTON said he could not accept Mr. Simon's proposal that the Council should note the suggestion of Dr. Gairdner and Mr. Stokes, because that would imply an indirect approval of it. Neither could he support Mr. Macnamara's motion that the Council noted with approval the suggestion, because he viewed with disapproval the suggestion that hygiene and preventive medicine ought to form a more independent part than they do of all examinations. The same word was being used to express different ideas, and he ventured to say that the mysterious word "hygiene" conveyed very different ideas to the minds of the different members of the Council. No doubt if they were asked to write down the meanings of the terms "preventive medicine" and "hygiene," twenty-four answers would be given which the most skilful examiner could not reconcile. The meaning put upon "hygiene" and "preventive medicine" in the University of Dublin was apparent from the qualifications that the candidates for qualifications in the subjects were required to possess. Candidates were required to be doctors of medicine or graduates in medicine and surgery of Dublin, Oxford, or Cambridge before they could present themselves for examination. Those were clearly not general practitioners' qualifications. According to the views of the University of Dublin, a proper knowledge of hygiene required a knowledge of law, engineering, pathology, vital and sanitary statistics, chemistry, meteorology, and medical jurisprudence. To introduce anything like preventive medicine or hygiene into the examination of a general practitioner would lead the public into the belief that a general medical practitioner was competent in all those subjects. The Council should be extremely cautious before it told the public that general practitioners had a knowledge of hygiene more than sufficient to enable them to advise as to the ventilation of a house or the construction of a water-closet.

The amendment of Mr. Simon was then put and carried by ten votes against six. Dr. Lyons' amendment that the words "preventive medicine" be omitted was put and negatived; and the amendment of Mr. Simon was then put as a substantive motion and carried.

(To be continued.

PROFESSOR BILLROTH'S OPERATIONS.—Prof. Billroth did not perform his projected gastric resection at Bordeaux, as the patient died on the day of his arrival. The autopsy revealed an error in diagnosis, the stomach being found perfectly normal, while the gall-bladder was filled with calculi. For the journey Prof. Billroth received 12,000 florins, while 3000 florins were apportioned to each of his assistants, Dr. Wolfler and Gersnay. A slight idea of the quantity of operative surgery Billroth performs can be gained from a recent Sunday forenoon's labour. In that space of time he removed two ovarian tumours and extirpated two uteri. The four patients survived the operations. His usual daily operative duty at the Allgemeine Krankenhaus is two hours and a half.—Vienna Correspondent of *Phil. Med. News*, May 6.

BRITISH HOME FOR INCURABLES, CLAPHAM.—H.R.H. the Princess of Wales, as Patroness of this institution, accompanied by H.R.H. the Prince of Wales, will honour by her presence a garden-party to be held in the grounds on Wednesday, the 19th inst., to celebrate the coming of age of this excellent institution.

MEDICAL WOMEN.—In allusion to the vote of the Medical Society at Harvard University against the admission of women to the medical school, and to the refusal of the Massachusetts Medical Society to admit qualified medical women as members, the *Boston Med. Jour.* (April 27) says:—"We have had neither space nor inclination to enter upon the already too vexed question of the general capabilities of women. Enough has been said about it. We think, as we have always thought, that time may be easily trusted to dispose of the 'woman-movement' to the best advantage of both sexes. But, regarding the extravagance of this movement, as we do, as a temporary enthusiasm, we welcome any indications that old and cherished institutions like the Massachusetts Medical Society and Harvard University are not to fall victims in their well-established usefulness to a social fermentation which history will, sooner or later, refer to simply as a singular phase of the sociology of the latter part of the nineteenth century."

ORIGINAL COMMUNICATIONS.

DISTOMA RINGERI AND PARASITICAL HÆMOPTYSIS.(a)

By PATRICK MANSON, M.D.

IN the *Customs Medical Reports*, vol. xx., page 10, I called attention to a new parasite, the mature form of which had recently been discovered by Dr. Ringer in Tamsui, Formosa. I therein succeeded in associating this animal with a peculiar form of recurring hæmoptysis, common in one part at least of the Chinese Empire, which had hitherto not been understood; and I gave some particulars of a case occurring in my own practice, in which the association was apparent. At that time I was unaware that Professor Baelz, of Tokio, had been working at the same subject, and it was not until I read in the *Lancet* of October 2, 1880, a summary of a paper by this gentleman, that I learned that this disease had been described by him, and that it was not uncommon in Japan. Although Professor Baelz, in the paper I refer to, errs in calling the bodies which I have proved to be the ova of Distoma Ringeri, gregarinæ, yet, though I do not know the dates of his investigations, the merit of priority in the discovery probably rests with him.

In my report I mention that in making a post-mortem examination of a Portuguese dead of aneurism of the aorta, Dr. Ringer found a parasite in the lungs; that in the sputum of a Chinaman suffering from a chronic intermitting hæmoptysis, I found certain bodies I had no difficulty in recognising as the ova of a parasite; and that when these bodies and the ova emitted by Distoma Ringeri were compared, they were found to be identical in size, shape, colour and contents.

The parasite discovered by Professor Baelz is met with in two forms: first, as yellowish brown ovoid bodies of ·13 millimetres long and ·07 millimetres wide. They have a double contour, from a translucent wall, ·02 millimetres thick, which in different positions appear greenish or reddish, and at the larger end is a kind of cover, at which the cyst opens. The contents consist of delicate jelly-like material, in which are embedded three or five aggregations of smaller bodies. The latter consist of (*a*) spherules about twice the size of a white blood-corpuscle, colourless, with sharp outlines. Around these spherules, and more or less enclosing them, is (*b*) a coarsely granular material scattered through the jelly, and in it molecular movements may often be seen. When the spherules have left the cyst, they show for a time the same movements, and then become invested with the granular substance, and become motionless.

These bodies, he concluded, are a stage in the development of gregarinæ, and he therefore proposes to call the disease they are connected with gregarinosis pulmonum, and the parasite gregarina pulmonum or gregarina fusca.

As the above description applied pretty accurately to the ova of Distoma Ringeri, and as they were associated with hæmoptysis, I concluded they were identical, and wrote to Professor Baelz, requesting him to send me a specimen of the characteristic sputum from Japan. He very kindly did so, and I had no difficulty in seeing that the bodies he described were identical with those I was familiar with and with the ova of Distoma Ringeri. Indeed, in his letter to me, the Professor says that both he and Leuckhart had already suspected they might be the ova of a distom. That this view is the correct one will receive additional and corroborative evidence in the sequel.

During the last eighteen months I have made many unsuccessful attempts to find the ova of the parasite in the sputa of natives of this district. I suppose I have examined altogether about 150 individuals. Therefore it is not at all likely that the disease is common in Amoy and its neighbourhood. It is quite otherwise, however, in North Formosa, though only separated from us by some 200 miles of sea. Being anxious to attempt the development of the embryo, and despairing of finding supplies of ova in Amoy, I applied to my friend Mr. John Graham, of Tamsui, to find me some sputa. He answered my letter by sending me two bottles full of ova-laden sputum, one of which was filled by his

(a) Extracted from the *Medical Reports of the Imperial Maritime Customs of China* for the half year ended September 30, 1881.

house-boy, the other by his coolie. Dr. Johansen also recently sent me six specimens of sputum, three of which contained ova in abundance; of the ova-laden sputa, one came from his hospital assistant, the other two from peasants living near Capsulan, a place about forty miles to the south-west of Tamsui. The facility with which these cases were found proves that the parasite must be very common about Tamsui; and Mr. Graham's servants, who some time ago both visited Amoy, told me that hæmoptysis, such as they themselves suffered from, was extremely common. Regarding their acquaintances, one of them said that 20 or 30 per cent., the other that 15 per cent., spat blood. Possibly these are over-statements, but at all events they show that the disease is extremely prevalent. With regard to Central and South Formosa, I recollect very distinctly my surprise at the large number of cases of hæmoptysis I used to meet with there, and have now little doubt that in Distoma Ringeri we have the explanation.

The geographical distribution of this parasite is peculiar, if it is the case, as seems probable, that it is rare or entirely absent on the mainland of China. We have Professor Baelz's authority for its existence throughout Japan. I suspect, therefore, that there is something in the soil or geological structure common to Japan and Formosa, but not present on the neighbouring continent, that determines this apparent caprice in the distoma area; and that this geological element, whatever it may be, is one necessary to the existence of the intermediary host. The distribution of similar parasites depends principally on the distribution of their intermediary hosts; this fact can easily be understood. Both Japan and Formosa resemble each other in being volcanic, and both are members of that long string of volcanic islands that, stretching along the eastern coast of Asia, includes, besides these, the Loochoos, the Bashees, the Philippines, and a host of smaller islands. I believe that extended inquiry would show that Distoma Ringeri exists in all of these.

Parasitical hæmoptysis can readily be diagnosed. There is a history of irregular intermitting hæmoptysis associated with a slight cough, and, in the intervals of more active bleeding, the expectoration once or several times a day of small pellets of viscid, brownish mucus. Violent exercise is apt to produce profuse hæmorrhage, and irritation of the lung in any way so as to induce coughing causes the discharge either of quantities of blood or of the characteristic sputum. At the same time there are no objective symptoms of lung-disease, and the patient probably enjoys good general health. Examination of a small portion of the sputum with the microscope at once settles the diagnosis. I many times examined sputa from the two cases I had under close observation for a considerable time, and never failed to find abundance of ova, sometimes counting as many as twenty in a single field.

The following are short notes of the two cases I refer to (I am told they are typical examples of the disease as found in Formosa):—

Heng, male, aged thirty-one; resides in Sinhang, Tamsui, where he works as a house coolie. His family, he says, is quite healthy; his mother, aged forty-four, and three brothers and four sisters are alive and well. His father died at fifty-eight of dropsy, and a sister died in childhood of small-pox. He himself is liable to ague. He was born in the town of Banka, and lived there till his eighteenth year; then he lived in Kelung for two or three years; afterwards he removed to Hobe, Tamsui, where his home has been for the last ten years. He has travelled about the north part of the island a good deal; been in Teckham two or three years ago; and eight years ago accompanied some Japanese to Khilai, on the east coast, where he resided for upwards of a month. His blood-spitting dates from eleven years ago; he was then working on the tea-hills with his father, near Banka. At first he noticed when he breathed hard in carrying heavy burdens that he coughed a little, and brought up mucus mixed with blood; from that time till now has spat blood more or less constantly—some days none, other days a considerable quantity. Once, when pulling in a boat about two years ago, he suddenly brought up over a bowlful of pure blood, but as a rule, unless exerting himself violently, he only brings up a few drops mixed with the mucus. Sometimes he does not spit for a few days, perhaps not for a month, and then the hæmoptysis recurs, to last for one or two months. He has a slight cough, but on auscultation nothing much amiss can be detected. His thorax is very finely developed. He says that he never exercised discretion about the water he drank, especially when young; used to take it from river, well, paddy-field, or ditch, whichever lay most convenient; and he says that nearly all North Formosans are similarly indiscreet. Heng lived in my house from July 14 to July 31, and during the whole of this time he could nearly always cough up blood or ova-laden mucus such as I have described.

Heō, male, aged twenty-two; born and resident in Hobe, Tamsui; a house-boy. Father and mother are both dead; both of them of some dropsical affection. Until he was eighteen years of age enjoyed excellent health; then, without any obvious cause, he began to spit blood, especially after making any very great exertion. During one year, many times each month, he continued to spit blood, about an ounce at a time. He then got lighter work, and the bleeding ceased, and has not recurred; but he has a cough still, and almost every day expectorates pellets of tenacious, muddy, yellowish-brown mucus. Sometimes for several days, if the weather is fine and his work is light, there is no cough or spit; but when the weather changes, or he has to exert himself, the cough and spit return. He complains of some pain about the left nipple, but the lungs appear healthy. His sputum is as described, and abundance of ova can be found in it.

When examined with the microscope, the ova of Distoma Ringeri are seen to be shaped very much after the fashion of a fowl's egg, with the exception that a circular operculum, about half the breadth of the egg, closes the broad end. On an average, they measure about $\frac{1}{120}'' \times \frac{1}{240}''$, but some specimens are slightly larger and others slightly smaller. There is considerable diversity likewise in shape, some being more globular than the majority, whilst others are more elongated and tapered towards the narrow end. Their colour—which, when blood is entirely absent, as is sometimes the case, imparts the characteristic brownish tinge to the sputum—is a dirty reddish-brown, and appears to reside both in the shell and in the granular portion of its contents. The shell is without markings, and shows in double outline, more especially when it has been fractured by pressure. When viewed with a high power, the ovum is seen to contain one, two, or more well-defined, pale sarcode globules, embedded in a structureless matrix containing abundance of irregularly disposed dark granular matter. Usually one of these sarcode globules is brighter and better defined than the rest. By careful focussing they are seen to be made up of very minute granules in a state of active molecular movement. Pressure ruptures the shell at the opercular end, forcing out the contents, which resolve themselves into innumerable globules of all sizes, from fine microscopic granules to large bodies $\frac{1}{1200}''$ in diameter. The smaller particles exhibit very active molecular movements, and tend after a time to coalesce round the larger. No trace of a differentiated embryo can be distinguished. Once or twice I have seen attempts at yelk cleavage, a dozen or more elongated cell-like bodies with a bright nucleus in each occupying the whole of the interior of the egg; but never anything more advanced than this.

It is evident, therefore, that some time must elapse before an embryo can be sufficiently developed to start on the independent existence which has been found to be the first step in development in those distoms whose early-life history has been studied. Reflecting that the ova are deposited in the sputum, that this affords probably their only means of escape from the human lungs, and that they are placed in it with a purpose, I concluded that by following out the destinies of a sputum I should probably be set on the right track for working out the first stage at least of the history of Distoma Ringeri.

When sputum is cast on the ground, one of three things may happen: first, it may be eaten by earthworms, molluscs, or other creatures; second, it may dry up and mix with the soil, the solid parts of it being perhaps afterwards blown about as dust; third, it may be washed and carried away by rain into well, ditch, pond, or river. I considered that if in any of these ways the ova are borne to suitable incubating media, the last is the most likely to favour the development of the distoma, and most in consonance with what happens in the case of better-known species. Accordingly, I determined to imitate nature as far as I could in this direction, on the supposition that rain or water was the first agency that operated on the ova. I procured two supplies of sputum

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from the man Heng: one lot I placed, without admixture of any sort, in a wineglass, and covered it up, keeping it for comparison and future experiment; the other lot, measuring about one ounce, and containing many thousands of ova, I shook up with about an equal quantity of filtered well-water until the mucous blood and ova were thoroughly diffused. This was divided into about equal portions between six wineglasses, and water sufficient to fill the glass was added to each. These were numbered 1, 2, 3, 4, 5, 6, and placed under a glass shade in a room where, during the subsequent steps of the experiment, the thermometer ranged between 80 and 94° Fahr. Next day No. 1 was not disturbed, but all water, except the drachm or two at the bottom of each glass containing the sediment and ova, was removed by means of a syringe from 2, 3, 4, 5, and 6, and fresh water added. On the following day 1 and 2 were not disturbed, but 3, 4, 5, and 6 were again watered, and so on. Thus in No. 1 the ova were washed once, in No. 2 twice, in No. 3 thrice, in No. 4 four times, in No. 5 five times, in No. 6 six times—the washing taking place at intervals of twenty-four hours. My notes of observations show that no development occurred in the unwashed ova; that it was delayed in No. 1, where only one washing had been performed; that it advanced steadily, without much notable difference, in 2, 3, 4, 5, 6, until at the end of from six weeks to two months the majority of the ova produced active ciliated embryos. A small quantity of sediment from one or more of the glasses was removed with a pipette daily, or every second day, and examined under the microscope. Ova were always easily found. For the most part they were entangled in little flakes of miscellaneous *débris*, but from this they could easily be separated. Notes were made of the various changes as far as they could be detected; but for the first few weeks, on account of the dark granular character of the contents, it is difficult to say precisely what the different steps were that led up to the formation of the mature embryo. Great molecular activity can be detected in the paler globules for some time; then these lose their distinctness, large oil globules appear about the periphery of the yelk, and a paler mass shows in the centre. In time the latter contracts, leaving the shell by a considerable space. Languid movements ensue in it; these become more active; a ciliated epithelium is developed on its surface, and an indentation at the opercular end indicates the presence of a month of some sort.

On the twenty-sixth day of incubation I note:—Examined some sediment from No. 3, and in it found an ovum of characteristic shape and colour, with an embryo in it, possessing considerable activity and plastic power. It moved vigorously in the shell, and altered from time to time the shape of its body, which for the most part was heart-shaped, a distinct depression existing at the opercular end. Contents of the body granular. No vessel visible. No cilia visible when in ovo, but on crushing the egg the ruptured embryo escapes, and its collapsed integument is then seen to be covered by long cilia, which keep in active movement for about one minute. Examined No. 4, and found several ova with active embryos of the same character. Also No. 1, but in it there appeared to be no advance in development.

On the twenty-eighth day I note:—In all the glasses except No. 1, the ova contained ciliated embryos. If carefully expressed, the embryo retains its activity for eight or ten minutes after its escape. It rushes off from the egg a globular ciliated rotating ball; as movement subsides, the body elongates, and a ciliated epidermis is seen to extend from the tail as far forward as the anterior third or shoulder of the animal. The anterior part is naked, and at its apex is provided with a papilla or beak.

The body of the animal evidently lies free in the shell, the cilia motionless at this stage, and directed backwards. If we watch the anterior part or head, which is always directed to the operculum, and for the most part closely applied to it, it is manifest that this is fixed in some way. By careful examination of ova at a later stage of development, I have satisfied myself that this is effected by an involution of the delicate membrane lining the shell, which here becomes continuous with the ciliated epidermis of the body; thus the neck is surrounded by a sort of collar, which keeps it at a fixed point. The movements of the animal during the last few days of its residence in the egg appear to be directed to rupturing this connexion, for the head is first turned forcibly to one side, then to another, expanded, contracted, and jerked about, as if the little thing were annoyed and irritated by the collar restraining it. When this has been ruptured the embryo moves about in the shell, trying in an excited sort of way to escape, the cilia vibrating rapidly. Frequently, failing to force the operculum open, it turns completely round and energetically butts the opposite pole of the ovum with its head. After a time it succeeds in opening the operculum, which is either carried completely off, and may be found lying at some distance, or is thrown back, as it on a hinge.

If we rupture an ovum very carefully a week or two after the appearance of the cilia, and are successful in extruding the little animal without crushing its delicate tissues, it will move away from the shell a short distance, its body elongating and contracting, and the cilia playing rapidly for a few minutes. Gradually all movements will cease, the body passing from heart-shape to spade-shape, the handle of the spade being represented by a minute papilla with a very fine canal, apparently opening at its apex. Now it may be distinctly seen that the ciliated epidermis does not cover the fore part of the body, only the posterior two-thirds, extending as far forward as the rounding in of the shoulder; also that the epidermis is in plates, one covering the tapered posterior end, and two other indistinct lines in advance of this, indicating that altogether there are three or four such plates or bands. Soon after extrusion the homogeneous or finely granular contents present larger globules containing actively moving granules, and as the feeble contractions of the body and ciliary motions cease, these granular globules increase in number, until finally the entire mass is made up of minute dancing, micrococcus-like particles. Then the epidermic plates roll up, leaving the body quite naked, the cilia fade from view, and finally an amorphous mass is all that remains.

If, however, we rupture the ovum at a later stage of development, or if our observations are made just when the embryo has squeezed its plastic body through the natural opening, the behaviour of the embryo is somewhat different. First, the cilia are seen to start into rapid motion, and then, after a preliminary pause, to rupture and separate itself from the lining membrane of the shell, which is sometimes forced out entire along with it; or, apparently to consider what has happened, the animal rushes off at great speed, gyrating about after the manner of certain infusoria. From time to time it pauses, contracting itself into a perfect disc or globe, rotating rapidly on its axis, first in one direction, then in another. Anon it dashes off to a distant part of the slide, exhibiting in its course many diversities of form. When going at high speed the body is much elongated: at a less speed, oval or fiddle-shaped or square; but at no time is the beak or naked shoulder protruded as long as the animal is alive and active, a slight depression on the ciliated surface alone indicating where these are retracted. Beneath the epidermis is a thick contractile layer; the interior appears to be fluid or a soft jelly, holding minute granules in suspension, and sometimes a larger bright point can be detected. No vessel of any sort can be traced. I do not know how long the animal preserves this active ciliated form. I have kept one alive in a glass cell for over twenty-four hours.

Such, briefly, is the history of the first step in the development of Distoma Ringeri. The ova are laid into the bronchial mucus; in the sputum they are cast on the ground; by rain or other means they are carried to stagnant water; they sink to the bottom: in the course of six weeks or two months ciliated embryos are developed; when mature, these force their opercula and swim free in the water. What the next stage may be can only be conjectured. Doubtless they enter the body of some fresh-water animal to undergo further metamorphoses. Perhaps this animal is eaten by man, or possibly the parasites once more obtain their freedom, and, while still in the water, are swallowed, and thus obtain an opportunity of gaining access to the human lungs, their final destiny.

I have not spoken yet of the fate of the unwashed ova. The glass containing them was not disturbed for about three weeks. At the end of this time the sputum had decomposed, stank abominably, and had settled into two layers, one upper, more or less clear, and a lower, turbid, and dark brown. On sampling the lower layer, into which the ova might be supposed to have gravitated, but few specimens could be found. These, however, were, as far as I could judge, in no way different from perfectly fresh specimens.

The sputum was then washed repeatedly with fresh water. But although in the sediment ova were numerous, no decided advance in development could be detected; on the contrary, in many, signs of decomposition were apparent at the end of two months. In others, again, the characteristic globules of sarcode could still be distinguished. Thus it would appear that unless the ova are freed from mucus and have access to fresh water within a short time of their birth, they perish. If, however, water is supplied to them soon after they leave the lungs, though in limited amount, as was done in the case of glass No. 1, they do not rot, but retain their vitality, proceeding slowly in development. In the case of the ova in this glass the embryos were not differentiated till about the fortieth day.

It is evident, therefore, that the ova must be brought into contact with water, and that this is the medium through which the parasite and the disease it produces pass from one human lung to another. In the history of this parasite we have another argument, if such is needed at the present day, for a pure water-supply. Not many months ago there were few who would not have laughed at the idea that blood-spitting could be produced by a draught of dirty water. Now this connexion can be demonstrated. How many more diseases acknowledge impure water as one of the most important factors in their etiology, time and the advance of science will show. This matter of Distoma Ringeri and parasitical hæmoptysis may have little practical interest for any but some forty or fifty million of Asiatics and the few hundreds of Europeans who live among them, but it is a valuable text for the advanced sanitarians of Europe to work on and preach from; to show that to-morrow some new fact may disclose unsuspected connexions between disease and uncleanliness.

By these observations the search for the intermediary host is limited to a comparatively small group of animals. It must be an inhabitant of fresh water; it is common to Japan and Formosa; it does not inhabit, or is rare on, the mainland of China,—at least that part of it near Amoy. The latter circumstance has precluded me from pursuing the investigation further, but I trust it will be taken up and successfully completed by someone residing in Formosa or Japan, who, being in the midst of the disease, must enjoy ample opportunity. The limitation of the field in which investigation need be made must simplify the search, but that it will be a short and easy one does not follow. The history of the liver fluke, the cause of so much disease in sheep, is not yet complete, notwithstanding the great inducements and facilities offered to its investigators in Europe and elsewhere.

On discovering the cause of parasitical hæmoptysis, the first thought that suggests itself is the possibility of curing it. Could the parasite be killed, the disease would be arrested. An important point bearing on this question has yet to be ascertained, and that is the exact site of the parasite in the lungs. Is it free in the bronchi, or is it jammed into the branches of the pulmonary artery? If the former, the parasite may be dislodged; if the latter, the prospect of cure must be very small indeed. An autopsy is necessary to settle this point, and I trust our *confrères* in Japan will bear this point in mind when they get the opportunity. The exact position of the mature parasite could easily be ascertained by microscopical examination of bronchial mucus; the appearance of ova in a particular tube would show that the animal is to be found by following up that lead.

Proceeding on the assumption that the parasite had its habitat in the bronchi, I made several attempts in the two cases I have given to kill or dislodge it. I caused the patients to inhale the spray of solutions of various drugs atomised by a Lister's steam apparatus. In this way the tincture and infusion of quassia, the infusion of kousso, solutions of turpentine and santonine in spirits of wine, were introduced into the lungs. In addition to these the man Heng inhaled the vapour of burning sulphur. Inhalation was practised twice daily for a week in one instance, and for a fortnight in the other. Certainly before these men passed from under my personal observation they were improved so far as cough and expectoration were concerned, but in both instances a small amount of ova-laden sputum could still be procured, irritating the lungs and inducing cough; they returned to Tamsui before I could be sure that the case was complete. In reply to my inquiries, Mr. Graham wrote me lately that Heng still spits small quantities of blood at long intervals, but that He has now no cough and can no longer bring up distoma mucus. He possibly is cured.(b)

I am sorry I have not been able to carry further these experiments in treatment. I would not allude to them now had I much prospect of being able to extend them. I mention them only in the hope that others with opportunities better than those I enjoy will pursue the inquiry in this very practical direction.

Our knowledge of the history of the ovum and the medium in which it is developed indicates the direction which effort at prevention should take. But I fear our knowledge in this instance is a little in advance of any prevention we may look for in a Formosan. Europeans who happen to be stationed in Formosa, or who may be travelling in the island, will understand from these remarks the necessity for extra caution with regard to drinking-water. They should never neglect to boil or filter it when the least suspicion is entertained about its purity. A little neglect in this matter may be paid for with a chronic hæmoptysis.

Progress of Population among the Jews.—In general, in Europe, the increase of Catholics, Protestants, and Jews, compared with each other, is as 1 : 2—3; but in France and Austria the increase of Jews is four and seven times greater than that of the Catholics. This does not depend upon the greater number of births among the Jews, which is usually inferior to that of Catholics and Protestants; but the number of illegitimate births is very much less among the Jews than among the other inhabitants. And as the mortality of infants is especially noteworthy in the category of illegitimate children, the result is that although the Jews have fewer infants than the Catholics and Protestants, they preserve a greater number of them. Another curious fact is the sex of the children. In the European population in general this is about 105 male to 100 female births; but in most countries where Jews abound, as Russia, Prussia, Austria, and Hungary, the proportion of male births rises to 110, 120, or even 130, instead of 105; and M. Lagneau attributes this great predominance of male births among the Jews to the fact of the early age at which they marry.—*Lyon Méd.*, June 25.

Fevers in South China.—Dr. Carrow, in his report on the health of Canton, published in the *Chinese Imperial Maritime Customs Medical Reports*, writes:—"I can bear out Dr. Manson in stating that we meet with varieties of fever in South China which have not been described, and which do not fall under any classification heretofore made; especially is this so in Canton. 'Fevers which yield to quinine, and fevers over which it has no influence,' seems to be a classification, although unsatisfactory, which one has to adopt in the treatment of these cases. At the present time I am treating two cases with quinine, and have had them under observation for two weeks, during which time I have kept up the symptoms of cinchonism, and thus far have noticed no improvement whatever. In a recent case I gave up the quinine treatment, and a cure was speedily effected spontaneously."

Measles and the Strumous Diathesis.—Dr. Gibney concludes a paper, which he read before the Practitioners' Society of New York (*New York Med. Record*, June 3), upon "The Sequelæ of Measles with special reference to the Development of a Strumous Diathesis," with the following propositions:—1. Measles is not by any means a "trivial disease." 2. Measles, and, indeed, any of the exanthemata, with whooping-cough especially included, are to be dreaded in patients suffering from the chronic bone and joint diseases commonly known as strumous. 3. Measles and whooping-cough take precedence among all the diseases of infancy and childhood in the evolution of a hereditary strumous diathesis. 4. A strumous diathesis may be *caused* by an attack of measles or whooping-cough in a child whose family history, both paternal and maternal, is absolutely free from hereditary diseases.

(b) I had an opportunity of examining Heng three months after the attempts at cure above described. He said he was quite well, that he had lost his cough, had spat neither blood nor mucus, and that he regarded himself as cured. I caused him to inhale irritating substances, and thus forced him to cough violently, but he failed to bring up any trace of distoma sputum. He told me that my other patient, Heng, still spat blood; and he also brought me three specimens of ova-laden sputum from three of his friends in Tamsui.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

DEVON AND EXETER HOSPITAL.

A CASE OF ACUTE NECROSIS OF THE TIBIA—ABSCESS IN THE KNEE-JOINT—SEPTICÆMIA—DOUBLE PNEUMONIA—AMPUTATION OF THE THIGH—RECOVERY.

(Under the care of Mr. BUDD.)

Reported by ARTHUR BLOMFIELD, M.D., House-Surgeon.]

THE following case is of considerable interest as exemplifying a train of serious symptoms not uncommonly following an apparently trivial accident, in which the shaft of a long bone becomes rapidly necrosed, and the clinical history of which exhibits grave constitutional disturbance, and unless treated early and actively is surely followed by rapidly fatal results.

James H., aged nine, a fairly healthy boy, ten days before his admission fell off a door-step, a very short distance, and bruised the left shin, but at the time there were no marks upon the leg. Some days afterwards the leg became painful and swollen.

He was admitted into the hospital on April 27, 1882, and his state then was as follows:—There was a well-marked hectic flush upon the cheeks; the tongue was dry and coated, and the bowels confined. The pulse was very rapid and feeble, and the temperature 102·4°. On examining the left leg, the skin in parts, especially near the ankle, was covered with red patches disappearing temporarily on pressure. The limb felt "boggy," but there was no evidence of any *superficial* fluctuation; it was extremely tender, and the slightest movement caused the boy to cry out with pain. Evening temperature 103·2°.

Next morning the pain and swelling continued, but the boy had recovered somewhat from the exhaustion following his removal from the country to the hospital. There was now evidence of deep tension, *i.e.*, of pus beneath the periosteum. Accordingly, a free incision was made down to the tibia, which was at once followed by a gush of thick yellow pus. The bone was found to be quite bare, but the incision gave considerable relief to the pain. Linseed poultices were applied; ammonia mixture and six ounces of port wine ordered, and slop diet. Morning temperature, 102·4°; evening temperature, 102·8°.

April 30.—Morning temperature, 101·2°; evening, 102°. Bowels open. The temperature varied between 101 and 102·5° for the next five days, and there was free discharge from the incision.

On May 5 he first complained of pain in the knee, which was relieved by an ice-bag. Temperature 99·6°.

On May 6, morning temperature, 98·8°; evening, 99·2°. The left knee was swollen and painful; fluctuation was distinct in the joint, and it was very evident that the case was now complicated by pus in the knee-joint. During the next week he first began to have a cough, and examination of the chest showed signs of consolidation of both bases; there was dulness with fine crepitation, and at the upper part of the chest coarse bronchial moist sounds. Expectoration was deficient. The temperature now became rapidly hectic, and the boy's state was critical. There was an enlarged and painful gland in the left groin.

May 12, temperature, morning 100°, evening 102°; 13th, morning 100·2°, evening 102°; 14th, morning 100°, evening 102·6°; 15th, morning 100·6°, evening 101·6°; 16th, morning 100·2°, evening 102°; 17th, morning 100·6°, evening 102·4°; 18th, morning 100°, evening 102°.

In addition to pus in the knee-joint the case was now complicated by a pneumonia of a low type and septicæmic in origin. The boy was rapidly getting into a low typhoid state, and it appeared that in spite of the very serious complications, the best thing to do, and the only chance of saving his life, was to remove the limb.

On May 19, Mr. Budd amputated above the knee by the usual flap operation; evening temperature, 97·6°. There was slight sickness, due to the chloroform.

May 20, temperature, morning 99·8°, evening 101·6°; 21st, morning 100·2°, evening 99·8°, 22nd, morning 99·2°, evening 99·8°.

May 23.—He was now decidedly improved in appearance, and had rallied extremely well from the shock of the operation. The flush had left the face, the pulse was quiet and stronger, but there was still a slight cough. Ordered four ounces of wine daily.

On May 24, temperature, morning 99·0°, evening 99·4°; slight cough; 25th, morning 99·0°, evening 99·2°.

On May 25 a small slough came away from the anterior flap; otherwise all along the stump has looked healthy, and is healing rapidly. Wine increased to six ounces daily.

On May 27, nine days after the operation, the temperature was normal, and has remained so since. Gradually the cough ceased, and all the chest symptoms cleared up, and the painful gland in the groin disappeared. His general health improved rapidly; the appetite was excellent, and he made a most satisfactory and speedy recovery, being discharged from the hospital cured on June 22.

Examination of the limb after removal showed the entire shaft of the left tibia to be bare, roughened, and completely necrosed; the periosteum had been entirely stripped off, and was converted into a bag containing pus. In the upper end of the tibia were two fairly large abscesses. The knee-joint was disorganised, and contained a large quantity of pus.

Remarks.—Briefly, the case presents the following points of interest:—1. The apparently slight injury to the leg, followed by so rapid and extensive a periostitis and necrosis 2. The subsequent development of an abscess in the neighbouring joint, and the enlarged and painful gland in the groin. 3. The distinct evidence of a septicæmic pneumonia in both lungs, and the accompanying increase in the grave constitutional symptoms. 4. The very clear relief afforded to all these symptoms by the removal of the limb; and, moreover, the recovery of the boy after well-marked signs and symptoms of blood-poisoning had developed themselves.

HYDROPHOBIA FROM FEAR.—The *Gazette des Hopitaux* (June 29), while noticing a case of alleged recovery from hydrophobia related to the Académie de Médecine, observes that it is often difficult to make the distinction between true hydrophobia due to the absorption of the rabid virus, and the symptoms of hydrophobia caused by fear of the disease. Was it really hydrophobia of which a woman died at the Hotel-Dieu, with what seemed to be all the symptoms of the disease? Several months before, this woman, a street vendor, had been bitten by a dog as she was passing Notre Dame, and went at once and had the wound cauterised at the Hotel-Dieu. From that time she continued perfectly well until one day, when she was pushing her barrow before the Hotel-Dieu, she was recognised by one of the students, who called out to her, "Holloa! you are not dead yet, then! The dog which bit your thigh was downright mad, as they found out at Alfort!" At the very instant the poor woman was seized with a violent pharyngeal spasm, and was at once taken to the Hotel-Dieu, where she died with all the symptoms of true hydrophobia, or at least of apparent hydrophobia.

THE SWISS CENSUS.—As the result of the census of the twenty-five Helvetic cantons, taken December 1, 1880, it is found that the population amounted to 2,846,102, viz., 1,394,626 males and 1,451,476 females, or 104 males to 100 females. Of this number 908,282 were less than fourteen years of age, 1,686,388 between fifteen and sixty, and 251,432 more than sixty—showing that there were 32 per cent. children, 59 adults, and 9 aged persons. There were 1,736,021 unmarried persons (610 per 1000), 919,137 married (323 per 1000), 181,403 widowed (63 per 1000), and 9511 divorced (4 per 1000)—so that married persons form nearly a third of the general population. As to religious belief, there were 1,667,109 Protestants (or 586 per 1000), 1,160,782 Catholics (408 per 1000), Israelites 7373 (2 per 1000), and miscellaneous or undesignated 10,838 (4 per 1000). So that, while the Protestants are in the majority, the Catholics do not form less than 41 per cent. of the total. Of the languages spoken in Switzerland, German is spoken by 2,030,792 (or 713 per 1000), French by 608,007 (214 per 1000), Italian by 161,923 (57 per 1000), Romana 38,714 (14 per 1000), other languages by 6673 (2 per 1000).—*Jour. de la Soc. de Statistique*, May.

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Medical Times and Gazette.

SATURDAY, JULY 8, 1882.

THE GENERAL MEDICAL COUNCIL.

On the second day of the present session the Council received a Report from the Preliminary Scientific Examinations Committee, which, in fact, did not advance the matter beyond the position in which it had been left last year. Eighteen of the licensing bodies had then replied to the communication made to them; and the Council resolved that "it be recommended" to the several licensing authorities to consider whether they could separately or jointly take steps to promote the establishment of a preliminary scientific examination, and to require that all candidates should pass it, "either before commencing the purely medical curriculum, or at latest before the end of the first year thereof." This recommendation had been communicated by the Committee on the subject to all the medical authorities; but answers had been received from five only of those bodies, and their answers "consisted mainly of an expression of their adherence to the opinions expressed in their former communications." In these circumstances, Dr. Haldane moved, on the part of the Committee, of which he was chairman—"That the recommendations of the Council at present in force in respect of the natural science subjects in the preliminary examination be not at present changed"; and stated that the Committee were satisfied that the bodies were prepared to follow the suggestions of the Council, several of them having embodied them in their system of examination. To this statement Dr. Haughton forcibly demurred. The opinion of the University of Dublin upon the subject might be well expressed, he said, in the words used by the Royal College of Physicians of London with regard to the matter, viz.—"That the College sees great difficulty and no advantage in introducing at the present any further alterations." The learned Professor amused himself and the Council by commenting on the reply made on the subject by the University of Durham. Words had at times, he observed, dropped at the Council, which suggested that they regarded that University as a weak sister; but she had been so charmed with the recommendations of the Council that she recommended, among other things, that they should require "a complete knowledge of the classification of animals." He had been studying this subject for the last thirty years, and "he had not at present arrived at that point of perfection which this magnificent University was anxious to exact from its students." Dr. Haldane's motion was carried; and there the matter rests, without any advancement. On the motion of Dr. Storrar, the Council resolved—"That a Committee be appointed to consider and report to the Council on the list of bodies whose examinations in general education are at present recognised by the Council"; and at the instance of Mr. Macnamara it was also resolved that "it is desirable" that the Council should know what provisions, if any, are taken to insure the impossibility of "personation" at the examinations of the several bodies, "the certificates of which are accepted by them as satisfactory evidence of preliminary examination; and that the Executive Committee be requested to inquire into, and report upon, this subject, previous to the next meeting of the General Medical Council." He was very eloquent on the subject, declaring that personation is common in Ireland, and that his inquiries on the subject had led him to believe that they were no worse off in Dublin than they are at Oxford and Cambridge, as regards the local examinations carried on by those bodies. It was then proposed to appoint a committee to consider the Visitation of Examinations Report, and the remarks of the licensing bodies thereon, and to report thereon to the Council for the present session. Mr. Pridgin Teale made a long and important statement upon the subject, which we published in full last week; and after some discussion the original motion was rejected, and it was decided that the Report and the remarks should be considered in committee of the whole Council.

A large part of the third day of the session was occupied with the Visitors' Report; the "conclusions" arrived at by the visitors being taken into consideration in committee of the whole Council. Mr. Teale, in moving the adoption of the first conclusion, viz., "That every 'primary' or 'first part' examination should include dissections by every candidate," said, amongst other things, that "the object of the visitors in bringing into prominence the points which they thought worthy of discussion, was that each point should be made valuable by the kind of study it brings out in the school, and, if possible, bring out and develope by study the faculties which would be most useful in the practice of the profession"; at the same time doing away, as far as possible, with the system of "cramming." He did not wish that the conclusions of the visitors should become, during the present session, recommendations by the Council. It was not wished to put any strong pressure on the various bodies; but he believed the desired end would be gained by having a thorough discussion of the conclusions, and an expression of opinion by the Council, which would, he expected, be very extensively read, not only by examiners, but also by those entrusted with the teaching of students. Several of the medical authorities approved of the first conclusion, and were already carrying it into effect. But he admitted that two of the bodies very strongly objected to it. The Royal College of Surgeons of England based their objection to it on the ground of impracticability; they had arrived at the conclusion that any advantage that might be gained by insisting on dissections would not be commensurate with the practical difficulty as to space, time, and supply of subjects which would attend their introduction as a distinct element of the examination, if made compulsory, in the case of every candidate. The other objecting body, the Royal College of Physicians and Surgeons of Edinburgh, considered the recommendation of dissections hardly consistent with experience, as well as im-

practicable. They had tried to make arrangements for such a practical test, and had found that the needful supply of subjects could not be obtained. He moved—"That it is desirable that every 'primary' or 'first part' examination should include dissections by every candidate." Sir William Gull seconded the motion; Dr. Lyons and Dr. Pyle supported it; Mr. Macnamara's only objection to it was that it was too weak. Mr. Simon thought the resolution strong enough for the present, and that a peremptory universally-applied statute would not be quite admissible as yet. Mr. Marshall, speaking for the College of Surgeons of England, pointed out the difficulty of obtaining subjects, and said that the result of carrying out the recommendation would be to starve the dissecting-rooms, and he would rather promote education than examination. Professor Turner expressed the opinion that the "conclusion," or recommendation, was not only entirely impracticable, but also unnecessary. He maintained that it is perfectly possible to carry out a sound anatomical examination without submitting the candidates to the test of actual dissections. He had had a very large experience in anatomical teaching and examination; and while admitting that you must have a dissected body to examine the students upon, he contended that it is a matter of indifference whether the dissection that a student was examined upon was made by himself or by somebody else. Mr. Teale's resolution was also supported by Professor Humphry, Dr. Haughton, Dr. Banks, and Dr. Watson; and in the end, the original motion—Mr. Teale's—was carried by a large majority.

The Council then received a deputation, consisting of Dr. W. Playfair, Mr. Sibley, Mr. Ernest Hart, Dr. J. H. Aveling, and Dr. Holman of Reigate, on the subject of the Draft Bill for the Registration of Midwives. The several members of the deputation explained the history and the objects of the Bill, which had been drafted on the basis of the recommendations of the Obstetrical Society; and Mr. Hart stated that while it was thought right and respectful to the Medical Council that their approval should be obtained, and that they should be the leading authority to control the subject, the Bill was so drafted that the duty and responsibility of the Council should be entirely limited to control; and that no burden of expense should be laid by it on the Council. The President thanked the deputation for favouring the Council with their views upon the Bill, and stated that it had been referred to a committee; that their statements would receive the fullest attention and consideration; and that they might rest assured that the Council would give their best advice to the Government upon the matter. The Committee of Council then resumed, and Mr. Teale and Sir William Gull moved—"That in view of the great and increasing range of chemical and physiological science, it is particularly desirable, in regard of those subjects, that examining bodies should comply with Recommendation 40 of the Council, and that candidates should be apprised beforehand of the limits of the examination in these subjects." The resolution, which is in fact only one of the already existing recommendations of the Council, was agreed to after a short conversation.

On Friday, the fourth day of the session, the consideration of the Report was again the chief business. The first resolution moved by Mr. Teale did not excite any opposition, though not a little time was spent in criticism and verbal alteration. As finally agreed to, it runs thus—"That at the final examination candidates should be practically examined in anatomy in its relation to practical medicine and practical surgery."

The next "conclusions" arrived at by the visitors gave rise to a lengthy discussion. They were framed so as to recommend that all candidates at a final examination shall be required to perform operations on the dead body; but Mr. Teale, in deference to all that had been stated, during the debate upon the first of the conclusions, regarding the difficulty of getting materials for practical work of this kind, and recognising to some extent, we suppose, the impracticability of some points in the visitors' ideal of a perfect examination scheme, had modified one of the conclusions, and after some discussion withdrew another. The "conclusion" finally agreed upon by the Committee with regard to the visitors' conclusions on the subject was—"That it is desirable that in every final examination for a surgical diploma, candidates should, as far as practicable, be required to perform operations on the dead subject in accordance with the intention of the Council's Recommendation 44." This work—the consideration, in committee of the whole Council, of the "conclusions" arrived at by the visitors,—was not finished till late on Monday, the seventh day of the session. The further resolutions carried in committee were—"That the application of bandages and splints should be required in every surgical examination. That the practical examinations in chemistry should be conducted in a laboratory. That it is desirable that the recognition of microscopical specimens, normal and morbid, should form a part of the examinations for medical and surgical diplomas. That the Committee agree with the following opinion of the visitors:—'That in oral examinations, notwithstanding any general rule which limits examinations, for instance, to ten minutes or a quarter of an hour, a margin of additional time for satisfying the examiners in all doubtful cases should be provided.' That considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Council takes note of the suggestion of Dr. Gairdner and Mr. Stokes, that these subjects ought to form a more independent part than they do of the examinations of all corporations." The report of the Committee has still to be considered in Council.

Looking at the character and form of these conclusions, resolutions, or recommendations (we know not what to call them); the fact, so naively acknowledged by Mr. Teale on the fourth day of the session, that several of them coincide with former recommendations of the Council; and at the almost entire absence from them of any new idea or suggestion,—it is impossible not to deplore the absolute waste of time and labour over the consideration of them. Hours each day were as tediously—and, in effect, as fruitlessly—frittered away as if one of the main objects of the eminent professional men seated round the council-table had simply been to kill a certain amount of time.

At the end of the fifth day of the session, the Council, at the instance of Dr. Chambers and Mr. Bradford, agreed to appoint a committee "to consider the abuses which arise from the employment of unqualified assistants by registered practitioners, and to report to the Council whether any means can be adopted for checking these abuses." The committee, which was appointed late on the sixth day, consisted of Dr. Chambers, Mr. Simon, Dr. Lyons, Dr. Pyle, Mr. Marshall, and Dr. Heron Watson; and their report was to be presented to the Council on the afternoon of Thursday, the ninth day of the session.

Several cases have been before the Council for judicial consideration on various grounds. One of these cases was a complaint against Mr. David Beatson Murdoch, who had been lately censured, in two instances, by coroners' juries, for "allowing Colonel Griffin and other unqualified men to practise in his name." The case against Mr. Murdoch, and his defence and explanation, were very carefully and closely considered by the Council, the matter occupying them for some hours with closed doors; and the result was that Mr. Murdoch's name was not erased from the Register.

THE MEDICAL ACTS COMMISSIONERS' REPORT.

Last week we indicated the main lines of this Report, but, as we then said, it was not possible to give a clear and distinct opinion as to its merits and demerits. These are more evident to us now, and consequently we are able to write with more authority on a subject which concerns us all. We are all perhaps more inclined to recognise defects than excellences, but some of the defects of the proposals which must be founded on this report are perhaps more than usually glaring. It could hardly be otherwise, for the composition of the Commission was such that it was impossible for it to give satisfaction to medical men; and when we find that out of the eleven who have signed this Report no fewer than six dissent from it, we can perhaps better estimate its force and value. Again, let it be remembered that out of these eleven Commissioners not one can be put down as an actual teacher of medicine—perhaps we might say, of surgery. Those who know Sir William Jenner best can best estimate the value of his teaching and his influence in teaching, but for many years he has been debarred by the inroad of patients from that more intimate knowledge of students' wants which can only come of mixing with them day by day. Robert McDonnell is to many *homo ignotus*, though to some of us he is the best representative of good work in Ireland. If it can add to the weight of what we have said, he is one of the few men belonging to the United Kingdom constantly quoted by German authorities. John Simon was an intellectual giant in days gone by. Few now know how far he excelled his compeers. His views on medical education were formulated many years ago in a certain memorable document, unanimously rejected by the London teachers. And both Huxley and Turner are what the Americans delight in calling scientists. Thus we are left, and the consequences are only natural.

Again and again it is asserted in this Report that the Medical Act was for the benefit of the public, not for that of the profession, therefore it seems to follow that the profession must pay all the expenses connected with carrying it out.

Certain bodies having now the right of granting qualifications to practise are censured—some of them, as we take it, most unjustly, or if justly, they are certainly not the greatest sinners. If anyone can go back to the time of the Medical Act of 1858, or to the more recent one relating to dentists, and what followed thereupon, they may find something to reflect upon as regards two bodies not censured. But there has been an outcry for the suppression of certain bodies granting qualifications. Nineteen is too many, so the Commissioners propose to reduce the nineteen to three, hoping and fearing they have not done too much nor too little. But the suppressed bodies are to be compensated, not by the State or commonwealth, which is to benefit, but by medical students or their relations. Surely this is not justice!

But even supposing we have the licensing bodies reduced to three, are we any better off? The Report says that it is not desirable to have absolute uniformity, and the Commissioners go so far as to say that if the standard of the University of London were universally adopted there would be speedily a difficulty in supplying the demand for qualified medical men. If absolute uniformity is not to be desired, then nineteen bodies are surely better than three; they at least afford a greater scope for variety, and the standard of the University of London is, as we have pointed out again and again, a purely artificial one. Their contrivances are intended to keep back men, not to encourage them to come forward for examination; and for practical every-day work we have often seen a plain Member of the College of Surgeons or a Licentiate of the College of Physicians their superiors. But even in these matters it is plain that the Report contradicts itself. If a man is duly qualified, he has a right to be put on the Register, at the expense of a fee, which is intended to protect the public, not him; for anybody may practise, only everyone is not allowed to use titles which do not belong to him—a matter of common law, rather than relating to this profession of medicine. We have said again and again that it would be far better for us to have a minimum qualification under State control, rather than being constantly tampered with as we are now. If a man is put on the Medical Register he should be put there as being qualified to practise, and any other qualification should be clearly and distinctly relegated to some blue, red, or yellow book. A doctor's degree nowadays means nothing—you must look to see where it hails from—to give themselves a bit of a lift some men even advertise on their door-plates that they are undergraduates of such and such a university. We have seen the boasted London degree advertised on a door-plate of portentous dimensions, apparently in the hope of attracting patients. An M.R.C.P.—meaning thereby a Member of the College of Preceptors—is not uncommon. By devices of this kind people may be led astray. Were there one plain and uniform designation, such as "registered medical practitioner," such a uniform title would go far to help the state of matters complained of. It would be obviously wrong to discuss the questions relating to the Medical Council itself until its opinion is before the world in black and white. It is clear that no legislative action can be taken this year, and we shall have time to think over all the various proposals made and some weighty arguments contained in the Appendix to the Report of the Commissioners. As a last word on the present occasion, we would say that when things are likely to mend themselves it is better to let them do so than to force on what some might call a settlement, but which settles nothing.

THE WEEK.

TOPICS OF THE DAY.

The recent complaints and rumours as to the sanitary condition of the town of Brighton have induced the authorities there to call upon Sir Joseph Bazalgette, C.B., to report on the condition of the sewerage system of the locality, more especially with reference to the ventilation and cleansing of the sewers. Sir Joseph has accordingly made a careful inspection, and has suggested some improvements in the ventilation of the sewers that can be carried out without very much expense. He also suggests that the present system of flushing adopted in dry weather should be continued, more especially at the upper or dead ends of the sewers, where the flow is smaller than at their lower ends, and this, if properly carried out, ought, he thinks, to prevent the accumulation of deposit. In concluding his report, Sir Joseph Bazalgette says:—"I am of opinion that, with some minor exceptions, to which I have already referred, and for which I have suggested various remedies, the general condition of the sewers of Brighton is satisfactory, and there are no just grounds for assuming it to be an unhealthy place; on the contrary, I believe it still deserves the high reputation it has always maintained as a desirable place of resort for those who seek the enjoyment of pure and invigorating air." Meanwhile, the Mayor of Brighton has called a public meeting "to assist and support the Town Council in establishing in a court of law the unfounded character of the allegations which have been recently published with reference to the town." At this meeting resolutions were passed, approving the action of the Council, and appointing a committee to administer any funds subscribed, in such a manner as they

may think best to vindicate the sanitary condition of the locality. A total of nearly £4000 was subscribed before the close of the meeting.

The Duke of Albany last week presided at the ceremony of opening the new building in Henrietta-street, Covent-garden, erected as the future home of St. Peter's Hospital for Stone. It will be remembered that this Hospital was established in Berners-street in 1850; and in 1873 an anonymous benefactor left at the institution a donation of £10,000 towards the foundation of a more commodious edifice. The Committee eventually decided upon a site in Henrietta-street, and a handsome and commodious building has been erected under their supervision. His Royal Highness was received by Lord Abinger, the Earl of Rosslyn, and a deputation representing the governors of the Hospital, and was conducted to the most spacious of the wards, henceforth to be called the Leopold, which had been handsomely decorated for the occasion of the opening ceremony. After the usual formalities, the Duke declared the building open, and he then received purses from a number of donors, by which means a further sum of upwards of £1300 was secured for the charity. His Royal Highness, before leaving, made an inspection of the whole building, and expressed his satisfaction with the general arrangements; he also intimated that the Duchess of Albany had consented to give her name to one of the new wards.

It is admitted, we believe, that there are more prosecutions for non-compliance with the compulsory vaccination laws in Leicester than in all the other towns of the kingdom put together; and it is stated that six months have witnessed very serious outbreaks of small-pox of a very virulent kind in the Midlands, and that at Leicester a considerable number of cases have been imported from London, Birmingham, Nottingham, and other towns. Each of these outbreaks has, however, been happily stamped out. The Corporation, as is the case with many boroughs, have acquired, under a local Act of Parliament, powers for the compulsory notification of the existence of infectious diseases, including small-pox and fever; and these powers have been, apparently, used promptly and efficaciously. In the event of a case of small-pox being reported at the sanitary offices, which are directly connected with the fever and small-pox hospitals by means of the telephone, an officer at once communicates with the institution, the removal van is placed in readiness, and beds are prepared for the required number of patients. The medical officer of health and an inspector visit the house where the outbreak has occurred; they explain the nature of the disease to the inmates; and, it is said, they have invariably succeeded in inducing not only the patients to be removed to the hospital, but—what is of equal importance—in inducing everyone who has come in contact with the sufferer, and everyone living in the same house, to occupy quarantine rooms at the hospital. The telephone is again brought into requisition, and the removals take place with the least possible delay. Those in quarantine are provided with every comfort and means of recreation until the period of quarantine has elapsed, and meantime the house where the outbreak occurred is thoroughly disinfected at the expense of the local authorities.

At a meeting of the executive committee of the Darwin Memorial Fund, held last week at the Royal Society's Rooms, Burlington House, it was announced that the total subscriptions already promised or received amounted to nearly £2500. It was decided that the memorial should take the form of a marble statue, and a sub-committee was appointed to make the necessary arrangements. With regard to the site, it was agreed to ask the trustees of the British Museum for permission to place the statue in the large hall of the British Museum (Natural History), South Kensington. The sub-committee appointed included the following gentlemen:—Mr. W. Bowman, Sir J. D. Hooker, Professor Huxley, Mr. C. T. Newton, and Sir F. Pollock, with the Chairman, Mr. W. Spottiswoode (President of the Royal Society); the Treasurer, Mr. John Evans (Treasurer of the Royal Society); and the Hon. Secretaries, Professor Bonney and Mr. P. Dove.

The Council of the Parkes Museum, instituted in 1875, it will be remembered, as a memorial to the late Dr. E. A. Parkes, and in order to promote the health of the community, recently held its first meeting since its incorporation, Captain Douglas Galton, F.R.S., in the chair. The Museum, as is well known, has been temporarily located in a building lent by the authorities of University College, Gower-street, but as it was unanimously decided to remove the collection of articles which have been got together, negotiations have been opened for acquiring a suitable building in a more central position. Since its establishment some six years ago the total expenses have not amounted to £1000, and owing to this economical management the first Council of the incorporated institution commences its work with a fund of £1630, and a collection of apparatus and appliances valued at upwards of £1000.

In some remarks which have been recently made on the relative health of Englishmen and Scotchmen, it appears that the lower average of temperature in Scotland, as compared with England, does not occasion any very striking difference in the number of deaths from diseases of the respiratory organs. In Scotland the proportion of deaths from bronchitis during the past year was 246 in every hundred thousand of the population, whilst in England it was 245. In the case of phthisis, however, the disparity is somewhat greater, being 239 in Scotland against 213 in England. On the other hand, fatal attacks of heart-disease are rather less common in the North, being annually in the proportion of 143 in England and 140 in Scotland. It is also curious that while 130 persons out of each hundred thousand in Scotland are put down as dying of old age, the figures for England under this head are only 111. For some unexplained reason consumption or tubercular diseases, though amongst the most fatal of those enumerated, do not figure in the Registrar's comparative table of "the twenty most fatal diseases in Scotland and England, arranged in the order of their fatality."

On the last day of June a medical student was summoned at the Dublin Police-court to show cause why information should not be taken against him, and the defendant returned for trial, for having attempted to enter into a conspiracy with a medical man in London to fraudulently pass an examination for his medical diploma. It was alleged that the student had sought to bribe the London practitioner to go over to Dublin, personate him, and pass the examination for him, the consideration being a sum of £250. The accused did not appear, and a warrant was accordingly issued for his arrest. The alleged frequency of "personation" at examinations has been brought before the General Medical Council during its present session.

The latest published additions to the Hospital Sunday Fund include Crouch Hill Presbyterian Church, £23; Hampstead Baptist Chapel, £35; St. Barnabas, Pimlico, £42; Camden-road Baptist Chapel, £52; St. James's, Clapton, £20; Chapel of Ease, Islington, £10; St. James's, Marylebone, £75; and the Abbey Church, West Ham, £33. The following are the principal amounts lately paid in from Hebrew congregations:—Great Synagogue, £241 14s.; West London, £224 19s.; Central, £135 11s.; Bayswater, £75 16s.; New, West-end, £68; North London, £40; Spanish and

Portuguese, £47 18s. The total of the sums paid in from all Hebrew congregations is £979. Up to Wednesday evening the Fund had reached a total of £32,200.

The Metropolitan Sewage Discharge Commission met last week at Great George-street, Westminster. There were present—Lord Bramwell, F.R.S., Chairman; Sir John Coode, Professor Williamson, F.R.S.; Dr. de Chaumont, F.R.S.; Dr. Stevenson; Mr. Abernethy; and Dr. Pole, F.R.S., Secretary.

Dr. Patrick Heron Watson has been appointed as Surgeon-in-Ordinary to Her Majesty in Scotland, *vice* Professor Spence, deceased.

ROYAL COLLEGE OF SURGEONS.

THE annual election of Fellows into the Council of the College took place on the 6th inst., and excited but little interest in comparison with some of the elections of late years, there being but little doubt or speculation as to the result. There were three vacancies, caused by the retirement in the prescribed order of Mr. John Marshall, F.R.S., Vice-President of the College, of University College Hospital; Mr. Alfred Baker, of the Birmingham Hospital; and Mr. Henry Power, Chairman of the Board of Examiners of St. Bartholomew's Hospital. These gentlemen all offered themselves for re-election, while the following also presented themselves as candidates, viz.:—Mr. George Lawson, of the Middlesex Hospital; Mr. John Croft, of St. Thomas's Hospital, a member of the Court of Examiners; and Mr. Nottidge Charles Macnamara, of the Westminster Hospital. In the absence of Sir Erasmus Wilson, the President, the chair was taken by Mr. T. Spencer Wells, the senior Vice-President, who having shortly explained the object of the meeting, called on the Secretary to read those portions of the by-laws relating to these annual elections, and opened the ballot. The ballot closed at five o'clock, when the Chairman announced that the choice of the Fellows had fallen on Messrs. Marshall, Power, and Croft. The numbers polled by each candidate were as follows, viz.—Mr. Marshall, 165, including 5 plumpers; Mr. Power, 144, including 3 plumpers; Mr. Croft, 103, including 21 plumpers; Mr. Baker, 72, including 10 plumpers; Mr. Lawson, 67, including 9 plumpers; and Mr. Macnamara, 48, including 8 plumpers.

THE MACHINERY FOR PREVENTING THE SPREAD OF EPIDEMIC DISEASES IN DUBLIN.

WITH the exception of an epidemic of measles, which is itself declining, Dublin is happily tolerably free from zymotic diseases at present. This somewhat unusual occurrence seems to have impressed the sanitary authorities of that city with the idea that their machinery for preventing the introduction of epidemics through the port, and for combating any outbreak which may take place, may safely be dispensed with. Consequently, steps are being taken to abolish the port hospital-ship, which was established some eight years ago at a cost of £2500, and to close the Kilmainham fever sheds in connexion with the South Dublin Union, which did excellent service in the last small-pox epidemic, and in a more recent outbreak of typhus. The Dublin Sanitary Association is, however, as usual, on the alert, and at the last meeting of the Executive Committee a resolution was passed, protesting against the proposed abolition of the port hospital-ship, pointing out that it was established with the view of intercepting contagious diseases coming from other parts, and expressing an opinion that a means of intercepting diseases which past experience has shown are introduced from abroad should not, for the sake of a very small annual outlay, be discontinued. It was observed that the object of the hospital-ship is not to treat cases after disease has broken out, but to anticipate outbreaks of disease by preventing their introduction on shore. As regards the Kilmainham fever hospital-sheds the Committee passed a resolution to the following effect:—"While they are pleased to know that at present there is but scanty occasion for their occupation, the Committee cannot believe that it would be judicious to leave the city without such a useful provision against epidemics. They would call attention to the desirability of having an isolated place ready to receive the very first cases of any outbreak of contagious disease, in the hope that its progress might be arrested, and they consider the sheds at Kilmainham most suitably supply this desideratum."

GANGRENE OF THE BLADDER FROM RETROVERSION OF THE GRAVID UTERUS.

THE last number of the *Archiv für Gynäkologie* contains an interesting article on the above subject, by Dr. G. Krukenberg, of Bonn. He points out that cases of rupture of the bladder and of gangrene of the bladder, from retroversion of the gravid uterus, are identical in their pathology. When gangrene of a portion of the vesical wall takes place, its peritoneal surface may be, or may become, adherent to neighbouring parts, and in that case the gangrenous bit (or layer) may be cast off, entire or broken up. If no adhesion be present, and the bladder be subject to distension, its wall will give way at the weakened spot; or the separation of the slough may lead to perforation, even without over-filling of the bladder. Dr. Krukenberg has only been able to collect ten of these rare cases, and to these he has added one observed by himself. The practical conclusions which he draws from them are these:—When the catheter has been employed and the uterus replaced before the sixth day, exfoliation of a portion of the vesical wall has never been observed. If regular catheterisation is begun before the tenth day, rupture of the bladder need not be feared. When retention of urine persists longer than this, either gangrene or rupture of the bladder may supervene, rupture being the more frequent. Rupture of the bladder may also take place suddenly, from great distension of the bladder, or from efforts even most carefully made to replace the uterus. If gangrenous portions of the vesical wall are cast off, it should be an indication to abstain from attempts to replace the uterus (lest rupture of the bladder should take place), and to treat the case by the induction of abortion.

THE METROPOLITAN WATER-SUPPLY: HOW ANALYSTS DIFFER:—WHY NOT HAVE A STANDARD?

IN dealing with the different reports of the Metropolitan Water Examiners for the month of May last, the principal feature to notice is the widely different results arrived at by the several analysts. At the outset it has to be noted that, according to the report of Colonel Bolton on the condition of the water previous to filtration, the state of the water in the Thames at Hampton, Molesey, and Sunbury was bad in quality from the 1st to the 9th of the month, when it improved. On the 12th it became good, and remained in that condition for the rest of the period. The river, it should be remarked, was in a state of flood during the first few days of May. The water in the river Lea was, however, in a good condition during the whole of the month. Turning now to the report of Messrs. Crookes, Odling, and Tidy for May last, we find it recorded that "during the month the condition of the waters, as regards colour, has been unexceptionable. With respect to their freedom from turbidity, never, with one exception, since we commenced our examinations a year and a half ago, have the waters approximated so nearly to a state of perfect filtration as they have during the past month. They have, more-

over, presented their usual excellent condition of aeration." But, unfortunately, Dr. Frankland by no means agrees in this favourable view of the May supply; he states that the Thames water distributed by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was, without exception, of very inferior quality to that sent out during the previous month, the deterioration being most marked in the case of the West Middlesex and Lambeth Companies. The supplies of these companies were worse than they have ever been during the present year. The water delivered by these two companies was also slightly turbid, owing to imperfect filtration. The Lea water supplied by the New River and East London Companies, although somewhat better than the Thames water, was, in respect of dissolved organic impurity, much inferior to that of last month. Both these waters were, however, efficiently filtered before delivery. A consideration of these widely different reports will be found somewhat puzzling by that portion of the general public who take an interest in the quality of the water supplied by the different London companies.

LIGATURE OF THE INNOMINATE.

THE case in which Mr. Thomson, of the Richmond Hospital (House of Industry), Dublin, ligatured the innominate on June 9, continues in a satisfactory condition. The diameter of the tumour has now diminished by one inch, and there is more firmness in the contents. A portion of ligature came away through the sinus on the eighteenth, and another portion on the twentieth day.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-fifth week of 1882, terminating June 22, was 1101 (599 males and 502 females), and among these there were from typhoid fever 52, small-pox 22, measles 33, scarlatina 2, pertussis 6, diphtheria and croup 47, erysipelas 10, and puerperal infections 4. There were also 48 deaths from tubercular and acute meningitis, 199 from phthisis, 22 from acute bronchitis, 60 from pneumonia, 100 from infantile athrepsia (39 of the infants having been wholly or partially suckled), and 37 violent deaths (26 males and 11 females). The number of deaths registered this week is lower than the mean of the last four weeks. There has been an increase upon last week of 9 deaths from typhoid, 8 from measles, and 4 from pertussis, those from diphtheria and small-pox remaining the same. The number of admissions to the hospitals for small-pox has diminished from 78 to 35, and for diphtheria from 36 to 31. The greater part of the excess of 93 deaths for the week has occurred between the ages of five and thirty-five, diseases of the cerebro-spinal and of the respiratory organs chiefly supplying it. The births for the week amounted to 1203, viz., 614 males (454 legitimate and 160 illegitimate) and 589 females (428 legitimate and 161 illegitimate): 108 infants were either born dead or died within twenty-four hours, viz., 58 males (39 legitimate and 19 illegitimate) and 50 females (35 legitimate and 15 illegitimate).

SUCCESSFUL EXTIRPATION OF A CYST OF THE MESENTERY.

A CASE of the above unusual kind is recorded by Dr. Werth, of Kiel, in the last number of the *Archiv für Gynakologie*. The patient had noticed the tumour three months before applying for advice; it was discovered during a sharp attack of colic, from which she often suffered, especially at menstrual times and after unusual exertion. She was reduced in nutrition and strength. On her admission the tumour lay above the pelvic inlet, and was very movable. It was not connected with the uterus, and the ovaries were within the true pelvis. Soon after an examination had been made under chloroform, severe pain came on in the abdomen, seated chiefly in the umbilical region, and it was found that the tumour had sunk into the pelvic cavity, and was covered by intestine, it having previously lain close to the abdominal wall. A tense cord could be felt on the left, near the middle line, running from the umbilical region to the pelvic inlet. There was frequent vomiting and rapid loss of strength, and on account of the urgency of these symptoms laparotomy was undertaken. After the abdomen had been opened, and the intestines pushed aside, this cord was found to run from the root of the mesentery to the tumour, which was in the pelvic cavity. The tumour was in the mesentery of the small intestine, subserous, covered with a fold of the mesentery, and throughout the greater part of its circumference with a loop of intestine, and a ring of mesentery, about five centimetres broad, surrounded it like a ruff. At the part not surrounded by mesentery were two small round openings, through which pappy fluid exuded. The tumour was enucleated, and after its removal some enlarged mesenteric glands were found, which were also taken away. The margins of the wound in the mesentery were brought together with catgut sutures. The patient recovered perfectly. On examination of the tumour it was difficult to make out precisely its origin; but by the method of exclusion Dr. Werth came to the conclusion that it must have originated in the mesenteric lymphatic glands. The cyst contained, as mentioned, a pappy fluid, which microscopically was found only to consist of albuminous and fatty detritus, without any formed elements; this Dr. Werth takes to have been inspissated chyle. Cysts of this kind have been described by Rokitansky. The only other instances of cysts of the mesentery which Dr. Werth has been able to find are cases recorded by Klebs, Eppinger, Roth, and Péan, none of which appear to have been similar in nature to his own.

THE CHAIR OF SURGERY AT EDINBURGH.

THE following is a list of the curators who have to appoint to the Chair of Surgery, vacant by the lamented death of Professor Spence:—The Lord Provost, Sir Thomas Boyd (of the well-known firm of Oliver and Boyd); Sir Alexander Grant, Bart., Vice-Chancellor of the University; Lord Kinnear, one of the Law Lords of the Court of Session; Mr. Campbell Swinton, a prominent Conservative, and one of high standing; Mr. Duncan M'Laren, well known as a leading Liberal Scottish member when he represented Edinburgh, and who is also known in that city as having rescued valuable educational bequests for the good of the people; Bailie Colston; Mr. John Boyd; and Mr. R. Bruce Johnston, W.S., who is the Honorary Secretary. We would not take it upon us, on the present occasion, to say who would best fill Mr. Spence's chair, but we dare do this—we can say that there are three men already before the electors, every one a good surgeon and a good teacher; these are Joseph Bell, John Chiene, and John Duncan.

DEATH OF DR. AMÉDÉE LATOUR.

THE *doyen* of the French medical press, who has done so much to elevate its character and maintain its tone, has just died amidst his much-beloved roses at Chatillon, near Paris. During the long period of some forty years his pen has never failed him, and writing first in the *Gazette des Hopitaux* as "Jean Raimond," and afterwards in the *Union Médicale* as "Docteur Simplice," his weekly *feuilletons* were ever a source of pleasure to those who could appreciate the remarkable features that characterised them. In the construction of these productions, which neither our political nor our professional press has ever been able to acclimatise, he may

surely be ranked with the highest masters of the art. This most genial of critics let nothing escape him in his weekly review of the topics which interest the medical world; the weak and strong points were all displayed with unerring acuteness in felicitous language; and never, even when writing, as often, under the pressure of severe illness, or the conviction that he was opposing a great danger, was he tempted to use an acrimonious expression, or one which could hurt the feelings of the most sensitive opponent. An ardent reformer, he never forgot the good and great qualities of those whom he opposed, and his gentle innuendoes, anecdotes of and references to bygone times, were most attractive reading. His great ability and indomitable energy raised him to being a power in the medico-political world, and not long since the Académie de Médecine opened its doors to him. The French Medical Association, with its organ the *Union Médicale*, was the result of his energetic exertions. And although some of those reforms which he advocated in its columns, and especially the revival of the *concours*, have never come to pass, he has been the means of producing great improvement in many directions. A man of very limited means and simple habits, he never lost the opportunity of advocating, at all times and seasons, the cause of the poor and destitute in our ranks.

CARBOLISED NERVES AS MATERIAL FOR LIGATURES.

In the June number of the *Archives of Medicine*, edited by Dr. Seguin, of New York, we find a contribution by Dr. John A. Wyeth, of the same city, on the above subject. The success attending the employment of ligatures made of animal tissues made Dr. Wyeth look for something smoother and stronger than anything yet introduced, and this he thinks he has found in carbolised nerves. He narrates a case in which he tied the common carotid artery, using as a ligature the freshly cut, carbolised, sciatic nerve of a calf. He has also tied the carotids of a horse and of a greyhound, employing a ligature of the same kind. It was found, upon subsequent dissection, that the artery was completely occluded, but that its continuity was unbroken, there being simply a depressed ring, scarcely appreciable, at the point where the ligature had constricted it. The autopsy upon the horse and the dog was made in the fifth week, and the nerve ligature was found in each case completely absorbed. Nerve-tissue, Dr. Wyeth says, seems to be especially suitable as a ligature. It is easily obtained, is very strong by virtue of its neurilemma, and is soft and cushioned, since its cylinders of neurilemma are filled with the white substance of Schwann.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

One of the interesting features in connexion with the annual election of Fellows into the Council of the Royal College of Surgeons is the exhibition of additions made to the Museum of the College, obtained as donations and by purchase since the previous annual meeting. This year the additions were on view in the council-room, instead of in the theatre, as heretofore, that being required for the examinations still going on for the diploma of membership. The new catalogue, upon which Sir James Paget, Dr. Goodhart, and Mr. Doran have been so long engaged, has made great progress. It includes revised descriptions of nearly 5000 specimens. The first volume, containing a description of the preparations illustrating general pathology, is already in type, and will be ready for distribution in a few weeks. The second part of the new catalogue of the osteological collection is also nearly complete. Many additions have, as usual, been made to this series, especially the great elephant seal, of which we published an account at the time. The collection of human skeletons and skulls continues to receive large additions, especially a series of upwards of a hundred skulls from Egypt, being mostly those of mummies, presented by Captain R. C. Burton. Although it is unfortunately not possible to ascertain the precise date of any of them, yet Professor Flower is of opinion that many valuable indications may be gained from them, relating to the general physical characters of the people to whom they belonged. The appeal made a few years ago by Sir Joseph Fayrer, F.R.C.S., to the medical officers of the Army serving in India, to collect skeletons and crania of various Oriental races, has been so liberally responded to, that it is hoped Naval medical officers also will sometimes think of their *Alma Mater*. Among these contributors this year are Surgeon-Major S. C. Mackenzie, M.D., of the Campbell Hospital, Calcutta, who has forwarded altogether eight perfect skeletons to the Museum; Deputy Surgeon-General John Shortt, M.D., Madras; Surgeon-Major G. Bidie, M.B., Superintendent of the Government Central Museum, Madras; Mr. Oudaatje, Colonial Surgeon, Ceylon; and Mr. K. S. Nasiman, Civil Surgeon, Dohad. The collection of surgical instruments has been increased by the donation from Mr. Charles Hawkins, a former member of the Council, of a series of about twenty-four instruments which formerly belonged to the late Sir Benjamin Brodie, exhibiting progressive modifications in the method of removing calculi from the bladder without the use of the knife. Dr. Jamieson, of Shanghai, has also presented some curious trusses of native manufacture. As showing the increasing interest taken in the Museum by the public, it is stated that during 1881 as many as 11,284 signed the visitors' book; in 1861 the number was 3669. The interesting annual report of Professor Flower, as Conservator of the Museum, which will be submitted to the Council next Thursday, will show the great interest taken in the collection by many well-known Fellows and Members of the College, who so constantly enrich the Museum with their contributions.

PUBLIC SCHOOL LIFE IN AMERICA.

The *Boston Medical and Surgical Journal*, in a recent number, publishes a paper on "The Diseases and Dangers incident to School Life," which was read by Dr. G. S. Stebbins, of Springfield, Massachusetts, before the District Medical Society in April last. This paper can hardly be credited with bringing to light any very novel feature connected with the subject dealt with; but it concludes with a suggestion which might be of service in this country, could it be introduced in connexion with our public schools. The lecturer called attention to the fact that ventilation and sanitation should always be looked after by some one having sufficient knowledge to enable him to secure them, and determination to maintain them. There should therefore he thinks, be a medical inspector of schools appointed, whose duty should be to thoroughly examine every school-house as often as once a month, for the purpose of obtaining exact information regarding their ventilation and general sanitary condition, and such officer should have the requisite authority to order every nuisance to be abated at once, and to enforce all needed sanitary regulations. To such an officer all cases of outbreak of contagious and infectious diseases, as scarlet fever, measles, diphtheria, etc., might be referred, so that he could at once institute measures to prevent their spread. A rigid quarantine of all pupil affected with contagious diseases is, the paper observes, of the utmost importance. Further, to this officer all parents should be referred, who seek for any modification of the rules of discipline in favour of their children on account of

bodily weakness or mental infirmity, so that he might investigate such cases and report accordingly. Such an office as this, filled by a man clothed with the needful authority and power, and who would thoroughly, conscientiously, and fearlessly discharge his duty, would, the lecturer thought, be of vastly more importance than that of janitor, school-house agent, not to say superintendent of schools.

MEDICAL PARLIAMENTARY AFFAIRS.

Small-pox.—In the House of Commons, Mr. Dodson, in reply to Mr. J. Talbot, said that the person who appeared among a crowd of out-patients at Guy's Hospital, suffering from small-pox, and afterwards went to the Stockwell Hospital in a public conveyance, did so on his own responsibility, and not by the advice of the medical officers of the Hospital. There is no proper accommodation at the general hospitals for such cases. It is therefore proposed to arrange in future for the detention of such cases until they can be removed by the ambulances belonging to the Managers of the Asylums District Board, and under the direction of the parochial authorities.

Vaccination.—Mr. Hopwood asked the President of the Local Government Board whether he was prepared to advise the public which of the two modes of vaccination now in use was to be preferred, viz., arm-to-arm or calf-lymph vaccination. It is alleged that tubercle may be transmitted by calf-lymph. Mr. Dodson replied that after long experience the Board have every confidence in humanised lymph, but they have not yet had a large experience of vaccination direct from the calf. Both are believed equally trustworthy. It is not within the knowledge of the Board that tubercle has been transmitted.

Substitutes for Butter.—Viscount Folkestone reminded the President of the Board of Trade that he promised last year to endeavour to devise means for the proper classification of these products as imported, and asked if such had been done. Mr. Chamberlain replied that he must consult other departments before taking action.

Insanitary Condition of the Thames.—Mr. Dodson, in reply to Sir J. McGarel Hogg, said that the fact of members of a Commission having expressed an opinion prior to their appointment as members is no disqualification for such persons to serve on a Royal Commission. The Government cannot suppose that Dr. Williamson and Mr. Abernethy will fail to act with complete impartiality.

On Tuesday the House was counted out when the Adulteration of Beer Bill came on for second reading.

Typhoid Fever in China.—Fifteen years ago some of the older practitioners denied positively that typhoid fever was ever seen among foreigners in China. More accurate diagnosis now refers a large number of cases to typhoid, which at an earlier date would have been classed somewhere under the heading of malarious affections. For my own part, after the collation of a very considerable number of cases extending over thirteen years, and in which all the phenomena accessible to direct observation are recorded, I have come to believe firmly that the remitting fever which lasts more than a week and does not yield to antiperiodics is typhoid. Some cases of remitting fever, which, before being seen, have been treated fruitlessly with quinine, yield when the drug is interrupted and its administration resumed after the action of an emetic or of a smart purge, or when it is combined with salines or with arsenic, or occasionally when, instead of giving it by the mouth, it is given as an enema. But when it is clear that antiperiodics are of no benefit, they are, I believe, hurtful, and the sooner they are abandoned the better. In these cases we have, I do not doubt, to deal with typhoid, although there may be neither delirium, nor diarrhœa, nor eruption, nor tenderness in the ileo-cæcal region. There is, however, generally more or less tympanites, and almost invariably a marked depression, for which the actual degree of fever is insufficient to account. In all these cases the time for quinine comes later. During the third week, when the morning temperature may be normal or subnormal, there is commonly a rise to 100 or 101° between 6 p.m. and midnight. One large daily dose of quinine is at this stage invaluable.—*Dr. Alexander Jamieson, in the Chinese Imperial Maritime Customs Medical Reports.*

FROM ABROAD.

The American Medical Association and the New York Code.

The thirty-third annual meeting of the American Medica Association has just taken place at St. Paul, Minnesota, and although the number of members assembled was large, and the meeting went off very satisfactorily, its scientific results are likely to prove of little importance, for there seems to have been a great paucity of papers. One of the most interesting points was the consideration how the recent declaration of the New York State Medical Society in favour of meeting homœopathists and other irregular practitioners in consultation would be met by a body whose code of ethics was thus deliberately violated. As we have already informed our readers, professional feeling, wherever there have been meetings of medical societies, has run high against the New York resolution, and on the present occasion of the meeting of the largest medical organisation the same feeling prevailed. In order to take part in its proceedings it is necessary that the delegates from the various medical societies should first have the powers granted to them verified, and numerous protests were sent in from various State medical societies against the admission of the delegates of the New York Society. These were referred to the Judicial Council, which decided unanimously that this Society having adopted a code of ethics essentially different, and in conflict with the code of the Association, was not entitled to representation by delegates. The delegates of the Society, therefore, who had arrived prepared to argue the reasonableness of their code, were thus summarily disposed of. Dr Lewis A. Sayre, indeed, had refused accepting the delegation when offered to him, on the natural ground that delegates could not expect to be received into an association whose laws they were not willing to obey. Several important members of the minority confidently believe that now the question has been made so widely known, the members of the New York Society will insist upon cancelling the resolution.

"Probably quackery, both within and without the profession," the *Philadelphia Med. News* observes, "has never received so severe a rebuke as has just been dealt it by the American Medical Association at St. Paul; and it is gratifying to observe that in taking this decisive step, the profession, as represented by its delegates there assembled, was unanimous in its sentiments. No one, however, who had observed the indications afforded by the medical press, the action of state and county medical societies, and the expressed opinions of intelligent physicians all over the country, could have felt any doubt as to the result. It was clearly an issue between the profession and the advocates of the New York Code; and with such unequally matched opponents, the dispute could be settled only in one way. The strength of the victors, however, did not lie in their numbers, but rather in the essential integrity and justice of their cause."

With the exception of the *New York Med. Record*, not a journal that has come under our notice has raised its voice in favour of the resolution of the Society, nor has that organ been able to adduce the names of any of the leading members of the profession approving of the step that had been taken. Referring to the vote of exclusion come to by the Association, the *Record* observes:—

"The point upon which the issue was taken was that referring to freedom in consultation, as allowed by the New York Society. The discussion turned upon a difference of opinion between the two societies as to the rights of medical men in their professional relations to their patients and to each other. The position of the Association in its decision has evidently been based upon the assumption that there is danger of countenancing irregular practice on the part of the New York men. This, as we have repeatedly said, is absolutely groundless. The practitioners of New York are as free from such temptation as are those in any other State. There has been a grave misapprehension of the true stand of the New York Society in this respect. It is in precisely the same position as it was before the new code was adopted, save that it guarantees its

members against discipline for infringements of that portion of the American code which has long been a dead letter. The motives which actuated the framers of the new code were beyond the suspicion of being unprofessional or mercenary. The idea was to elevate the regular profession on such a high and liberal platform that there should be no possible reason on the part of others for charging us with bigotry in any shape. It cannot be denied that this is the line of progress, and gives to all competent practitioners of every school the opportunities of laying aside their special creeds, their pet dogmas, and elevating themselves to the grade of honest and true physicians. How far they will do this every regular practitioner can judge for himself, and prove to his own satisfaction. The countenancing of homœopathy, eclectism, or any similar delusion, by such means, is simply absurd. There is always a presumptuous fly on every axle, ready to prove why the wheel moves. Liberality and dogmatism can never have any common ground of honest understanding. One must give way to the other. It is not difficult to see which is the weaker. We venture to say that homœopathy owes its success as a branch of sectarian medicine to the martyrdom which it has enjoyed at the hands of regular medicine. Latterly it has been let alone, and already it is beginning to drop its distinctive title and to abandon its cherished tenets. We simply give this sect and all similar ones no further excuse for being martyrs. We press forward untrammelled by any codical restrictions in our search for simple truth, and others may follow if they please. As before stated, we think that the question of professional relations in regard to consultants can, from this standpoint, be safely left to work out its own solution, in accordance with the judgment of the individual medical man, without jeopardising the honour of the profession, without fostering quackery, and without encouraging illegitimate medicine."

In relation to this subject we may refer to a very sensible proposition concerning the term "allopath," advanced by Dr. Dennison, of Colorado, and which was referred to the Judicial Council to report upon. "In order," his resolution says, "to correct a misconception which largely prevails in the public mind, and to some extent prevails among members of the profession, as to the liberty of action authorised by this Association in the treatment of diseases, we deem it proper to make a declaration of principles broadly applicable to the healing art, as sanctioned and practised under our code, to wit:—Rational medicine, being based upon experience and pathological research, demands absolute freedom in the selection and administration of materia medica, and there is nothing in the code of ethics of the American Medical Association prohibiting the use by its members of any known and honourable means of combating disease. Furthermore, as contributing to the alleviation of human suffering, we hail with pleasure and gratitude every discovery in etiological and therapeutical science, by whomsoever made. We therefore reject as obnoxious and untrue the term 'allopathists,' as applied to this Association by dogmatists and extremists without its fold. *First*, because it tends to convey the erroneous impression that we are restricted to the choice of remedies and the method of using them by other than the limits of rational science. *Second*, because for any association of men claiming to practise the profession of medicine to adopt a name based upon limited and conjectured theories of therapeutics, for the purpose of designating a particular school of medicine, we have always held, and still regard, as unscientific in principle and dangerous in practice."

Salicylic Acid in Rheumatism.

We find the following useful practical observations in the *Philadelphia Med. and Surg. Reporter* for June 3:—

"While experience has proven that salicylic acid does not diminish the danger of acute articular rheumatism—the percentage of heart complications, if we can rely upon published statistics, being rather higher since the use of this medicine than under the former alkaline treatment—the remedy is as near a specific in this disease as we shall perhaps ever possess. But it should be given in large doses and frequently enough. If correctly administered, it will invariably reduce the temperature, lessen the severity of the inflammation and swelling, palliate not only the excruciating pain, but totally remove the latter in the majority of cases, and, lastly, decidedly shorten the duration of the disease. Of this we have often, in private and hospital practice, the opportunity to convince ourselves. There are still many physicians who either have not as yet used this remedy at all, or did not succeed in gaining the results mentioned. Such physicians generally hesitate to push the treatment, because they are afraid, and dread the collapse about which so much has been written. But while the practitioner has been frequently cautioned not to push the remedy till the collapse takes place, and, to make matters worse, while it has been said that such accidents may happen suddenly, no sign has been given by which the less experienced physician might know when to stop. A long acquaintance with the drug has convinced us of the truth of the following assertions.

"1. Salicylic acid or its combinations can be given to an adult suffering from acute articular rheumatism, in doses of twenty grains every two hours, without any danger, *as long as the pulse does not beat below* 84. Whenever it falls below this, the dose has to be decreased to ten grains, or better still, the frequency of the original dose diminished, say to every four hours, or three times daily, instead of every two hours. Should the symptoms again become worse, and the pulse increase in frequency, the physician can without any risk administer the drug the same way as at first, and continue it again, till either there is no more necessity for such large doses and their frequent repetition, or the pulse begins again to drop below 84—amelioration of the symptoms and decrease in the pulse going hand in hand. 2. Instead of giving salicylic acid alone, the following combination acts better and—if the first rule be observed—is safe, even in cases of pre-existing organic heart-lesions, and seems decidedly to lessen the danger of endo- and peri-carditis arising as complications:—R. Acid. salic. ℥ss., liq. ammon. acet. ℥ij., aq. dest. ℥iij., syrup. cort. aur. ℥j.—m.; a tablespoonful in water every two hours. If this combination is prescribed, and the first rule followed, our readers will find that, in cases of acute rheumatism, the effect of salicylic acid mentioned above will invariably take place, but collapse will never happen."

REVIEWS.

Lectures on the First Principles of Surgery. By John Chiene, M.D., F.R.C.S.E., etc., Surgeon to the Edinburgh Royal Infirmary. (Reprinted from the *American Practitioner.*)

These are seven lectures, delivered in 1878, on wounds and their repair, the complications of wounds and their prevention. They are reprinted from the *American Practitioner*, and brought together in a small and convenient compass.

Having pointed out the importance of understanding thoroughly guiding principles, Mr. Chiene passes on to give a plain and straightforward account of the local effects of irritants. He acknowledges his great indebtedness to Mr. Lister's writings, which are not even mentioned by Cohnheim, whom he forestalled on many points. Dr. Chiene's essay may be accepted as proof of the value and influence of Lister's teaching.

It is to be regretted that the scope of these Lectures prevented a due notice of Cohnheim's work. This has advanced the subject largely, and shows that leakage need not arise from increase of intravascular pressure due to stasis and afflux; it shows that the escape of red corpuscles is not due to rupture of dilated vessels, and that their escape is as much a part of a severe inflammation as is the passage out of white corpuscles of a milder one.

The mode of natural arrest of hæmorrhage and the anatomy of clots are well given. Repair is carefully gone through under all conditions, and the conclusion arrived at is that "*repair of every solution of continuity takes place in every instance by means of blood-clot*"—a return to J. Hunter's teaching. Blood-clot with Dr. Chiene includes everything, from fibrine containing leucocytes in its meshes up to granulation tissue; and he considers the original lymph or clot as "living" and taking an active part in union. The lecture on fever is very lucid, and will help the student much.

In the fifth lecture the different ways in which infective organisms may be attacked are put forth capitally, and the author proves himself a true believer in antiseptic surgery. He points out particularly the fallacy of thinking that no

suppuration can occur in an antiseptic wound; any irritation will cause it, even that of carbolic acid, as those find who constantly syringe out their wounds.

The final chapters are devoted to the consideration of the various antiseptics in use, and to the practice of antiseptic surgery, under which heading many useful hints to practitioners on the feasibility of the practice are given.

The style of the Lectures leaves little to be desired. They are just such as to impress facts deeply in the students' minds.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 7.

DR. GEORGE BUCHANAN, President, in the Chair.

DR. ARTHUR RANSOME read a paper on "The Form of the Epidemic Wave, and on some of its Probable Causes." 1. The course of an epidemic through a country may be compared to a wave rising and falling—again to rise after an interval which, in the same disease, is remarkably regular. This observance of "periodic times" is probably due to the fact that a certain density of the population at the susceptible ages is necessary before a disease can spread with the vigour of an epidemic. (See "Epidemic Cycles," *Proceedings Lit. and Phil. Society*, January 27, 1881.) 2. In some diseases, such as scarlet fever and whooping-cough, and perhaps small-pox, there is evidence, in the hundred years or more of mortality returns from Sweden, of more widespread variations in course of these complaints—a variation of fifteen to twenty-five years in the case of scarlet fever; of fifty years in whooping-cough and small-pox. No explanation could be given of these latter variations. In scarlet fever it was supposed to be due to the susceptibility of adults to this disease. The form of the epidemic was best to be studied by means of a regular registration of disease, such as was in use in St. Marylebone and Manchester, in Preston and Birmingham—not from mortality statistics. From these data it was observed—3. That the curve of an epidemic is usually very irregular, and its oscillations were shown to be due (*a*) to the lighting up of fresh centres of infection, (*b*) to variations in sanitary conditions, and (*c*) to atmospheric influences, affecting equally two distant places, the coincidence of curves in Manchester and London being very striking. 4. A pre-epidemic period of several months, or even two years, was found to exist in small-pox and scarlet fever, and a shorter period in whooping-cough and measles. This preliminary period was probably due to the need for the establishment of many distinct centres of infection. 5. A recrudescence of the epidemic was often to be found, and this was probably due to a fresh intensification of a previously attenuated virus; perhaps, in accordance with M. Pasteur's observations, in consequence of the deaths of very young or enfeebled persons. 6. The general form of the epidemic wave might partly be accounted for by the theory of infection spreading like a spark in tinder, but it was more probably due to a steady attenuation of the virus in passing through a succession of individuals. 7. The preference of certain epidemics for different seasons of the year was usually to be explained by the prevalence of diseases, at those seasons, of organs chiefly affected also by epidemic disease. A local predisposition to the disease was thus established, and we might thus explain the "epidemic constitution" of certain years, and the "pestilential type" of disease common during epidemics.

In the discussion which followed, the President, Dr. Longstaffe, Inspector-General Lawson, Surgeon-General Murray, Dr. Dickson, Surgeon-Major Dow, and Dr. Scriven took part.

HORSES AND CARRIAGES IN PARIS.—According to the census of horses in Paris made in 1880, there were 14,881 proprietors and 87,129 horses (60,206 horses and 26,923 mares). The census of carriages was last made in 1878, when there were 13,880 proprietors and 26,192 carriages.

FOREIGN CORRESPONDENCE.

SPAIN.

SANTILLANA.

SUCCESSFUL CASES OF OVARIOTOMY—SPANISH PRACTITIONERS DURING THE EIGHTEENTH CENTURY.

SINCE my last communication to the *Medical Times and Gazette*, in which I pointed out the progress which abdominal surgery had of late years effected in Spain, several additional ovariotomies have been performed with the most complete success. Amongst others I may mention a case of ovarian tumour operated upon by Dr. Navarre, of San Jorge. The growth was a large multilocular cyst; the adhesions were but slight; the pedicle was cut short and returned; no carbolic spray was used; cure in twenty days. Another case was operated upon by Dr. Piñeyro, of Madrid—multilocular cyst; slight adhesions; extra-peritoneal treatment of pedicle; spray; cure in twenty-six days. Another by Dr. Kyspert, of Madrid—large trilocular cyst; tenacious adhesions; I cannot state how the pedicle was dealt with, nor whether the spray was used; on the fifth day after operation (since which date no report has been published, the patient was progressing favourably. Four consecutive cases terminating in perfect recovery have been operated upon in Madrid by Dr. Rubio, two of them being performed under the most unpromising circumstances. The first case of this small series was a non-pedunculated multilocular cyst; the visceral adhesions were dense and unyielding; a considerable number of bleeding vessels required cauterisation or ligature; the tumour being sessile, an artificial extra-peritoneal pedicle was formed by the ingenious method devised by Dr. Rubio some time since, and described by me in a former volume of this journal; the spray was not used; the wound, dressed antiseptically, was left untouched until the eighth day, when it was found to be uniting firmly, and it was again dressed on the fourteenth day for the second and last time, the patient leaving her bed quite well two or three days later. The second of Dr. Rubio's cases was a much simpler one—the tumour was unilocular; adhesions slight; extra-peritoneal treatment of pedicle; no spray; cure in twenty-five days. The third case was one well calculated to exhaust the resources and baffle the operative ingenuity of many an experienced ovariotomist—the tumour was bilocular, sessile, intimately adherent to omentum, peritoneum, cæcum, vermiform appendix, and sigmoid flexure of colon, and with attachments absolutely inseparable from the pelvic floor, uterus, and bladder. To the difficulties of the operation itself were to be added the incessant struggles of the patient, who, having ineffectually inhaled no less than six ounces of chloroform, underwent the operation in a state of hyperæsthesia and most intense excitement. An artificial extra-peritoneal pedicle was, with great difficulty, formed; the spray was used during the whole of the operative proceedings; the first dressing was removed on the fifth day; wound healing except around pedicle; dressing removed again on tenth day; fœtid pus discharging around pedicle, proceeding from floor of pelvis, and continuing to flow until fourteenth day. Notwithstanding all drawbacks, patient made a perfect recovery, and left town for Valencia on thirty-fifth day. The fourth case was of a far less complicated nature—it was a unilocular cyst; adhesions numerous, but yielding; pedicle long, and was brought outside. The spray does not appear to have been used. The first dressing was removed on eighth day, when the wound (excepting around the pedicle) was found to be firmly united. Pedicle came away on twenty-first day. It is worthy of note that this latter case is the only one in which ovariotomy has, as yet, been performed in a Spanish general hospital with success; and this in spite of the prevalence of erysipelas and diarrhœa in the surgical wards at the time.

A slight error has, no doubt inadvertently, crept into one of the recent numbers of the *Medical Times and Gazette*, in which it is stated that "the treatment prescribed by Spanish physicians during the eighteenth century was so violent that it was certain death to submit to it for any length of time." It so happens, however, that by the commencement of the eighteenth century, Galenical and every other over-active mode of treatment had already subsided to such an extent that there was probably no other country

in Europe in which Hippocratical and other more or less expectant methods were more in vogue than in Spain. Higgins, Kelly, Burlet, Michelet, Legendre, and many other English and French physicians of eminence who followed Philip of France, grandson of Louis XIV., when he ascended the Spanish throne, had ample opportunities of witnessing that Spanish practitioners, as a rule, were guilled in their treatment much less by systematic or preconceived notions than by the teachings of the natural history of disease. The renowned Martin Martinez, who was not only an acute and practised physician, but a clever anatomist and profound philosopher, was one of the foremost of his time, in his "Philosophia Sceptica" and "Medicina Sceptica," to adduce proofs of the futility of relying upon Aristotelic logic and metaphysics as the basis of scientific and practical medicine, and to point out the necessity of laying the foundations of the healing art upon practice, experience, and observation. Another of the leaders of Spanish medicine during the eighteenth century, and by whom spoliative and violent methods of treating disease were energetically discouraged and condemned, was the celebrated Andrés Piquer, whose works on fevers were translated into French by the professors of the school of Montpellier, and whose vivid descriptions of disease were eagerly copied by the illustrious Pinel. Antonio Franseri, another prominent physician of the period, published valuable and sound doctrine on the expectant treatment of disease; and Solano de Luque, Luzuriaga, Masdevall, Lafuente, Salva, Arejula, and a vast number of practitioners of no less note, whose published works evince maturity of judgment and wholesome practice, afford additional and permanent testimony to the fact that the treatment prescribed by Spanish physicians during the eighteenth century was far from being, as erroneously stated, *so violent that it was certain death to submit to it for any length of time.*

I am, &c.,

R. Ballota Taylor, L.R.C.P.,
Fellow of the Spanish Medico-Chirurgical Academy

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at meetings of the Board of Examiners on the 1st and 3rd inst., and when eligible will be admitted to the pass examination, viz.:—

Arnold, William, student of the Manchester School.
Atkinson, Ambrose, of the Leeds School.
Bullied, Arthur, of the Bristol School.
Calvert, James, of St. Bartholomew's Hospital.
Clarke, John S. L., of the Dublin School.
Da Costa, George F. A., of the Aberdeen School.
Evans, William, of the Liverpool School.
Greenough, Edwin, of the Edinburgh School.
Haig, Francis M., B.A., of the Cambridge School.
Helps, George C., of the Bristol School.
Howard, Robert J. B., of the McGill School.
Knaggs, Francis H., of the Edinburgh School.
Lazenby, James, of the Newcastle School.
McCulloch, Henry D., of the Calcutta and Glasgow Schools.
Macloghlin, Edward P. P., of the Liverpool School.
Macpherson, Donald F., of the New York School.
Owen, Robert C., of the Bristol School.
Pearson, Albert E. A., of the Leeds School.
Pilcrim, Herbert H., of the Edinburgh School.
Pollard, George R. M., of Guy's Hospital.
Rains, Robert H., of the Manchester School.
Reed, Walter J., of the Birmingham School.
Rhodes, Thomas, of the Edinburgh School.
Roberts, Joseph T., of the Newcastle School.
Ruddock, William J., of the Newcastle School.
Shaw, Harold B., B.A., of the Cambridge School.
Simpson, James T., of the Leeds School.
Smart, William H., B.A., of the Cambridge School.
Tooner, Joseph A., of the Manchester School.
Vincent, George, of the Aberdeen School.
Wilson, George, of the Edinburgh School.
Yeoman, William M., of the Newcastle School.

Sixteen candidates were rejected, including one for six months. The following gentlemen passed on the 4th inst., viz.:—

Aspinall, John, student of the Manchester School.
Barsham, William A., of St. Bartholomew's Hospital.
Fern, William J., of the Manchester School.
Fisher, Octavius S., of the Manchester School.
Forden, George, of the Leeds School.
Fox, John A., of Guy's Hospital.
Frese, Carl, of the Manchester School.
Hall, George R., of the Newcastle School.
Haviland, George D., B.A., of the Cambridge School.
Hillier, Thomas E., B.A., of the Cambridge School.
Hinnell, Joseph S., B.A., of the Cambridge School.
Jones, Herbert C. W., B.A., of the Cambridge School.
Maberly, Ernest, of the Birmingham School.
Marsden, Henry A., of the Manchester School.
Nevins, John E., of the Liverpool School.
Riley, Ronald J., of the Birmingham School.
Waite, Henry, of the Leeds School.
Williams, Herbert L., of the Manchester School.

Ten candidates were rejected, including one for six months. The following gentlemen passed on the 5th inst., viz.:—

Fowler, Alfred H., student of Guy's Hospital.
Hare, Edward C., of Guy's Hospital.
Hughes, John D., of Guy's Hospital.
Kemmeter, Felix, of the Westminster Hospital.
Laidler, Arthur G., of the Newcastle School.
Mackonochie, William, of St. Mary's Hospital.
Maloney, William, R.N., of St. Mary's Hospital.
Mann, John B., of the Manchester School.
Stevens, Percy R., of St. George's Hospital.
Thomas, Frederick, of the London Hospital.
Walsham, Hugh, of St. Bartholomew's Hospital.
Welch, Albert W., of Guy's Hospital.
White, John H., of the Manchester School.
Yates, William B., of the Manchester School.

Fourteen candidates were rejected, including five who had an additional three months.

Primary Examinations.—At the Anatomical and Physiological examination for the diploma of Membership of the Royal College of Surgeons, on Friday last, the 30th instant, when the large number of 152 candidates presented themselves, the following were the questions submitted to them at the written examination, to be answered from one to three o'clock, viz.:—Anatomy: 1. Describe the lachrymal gland, with its position, relations, and coverings. 2. Describe the movements of which the knee-joint is capable, and give the muscles by which these movements are severally effected. 3. Describe the clavicle, and mention the various structures attached to and in relation with it. 4. Describe the œsophagus, its course, relations, and structure. 5. Describe the prostate gland. 6. Give the dissection required to expose the quadratus femoris muscle, and mention the parts in immediate relation with it. The following were the questions in Physiology, to be answered from four to six o'clock, viz.:—1. Describe the cycle of the heart's action, stating the relative duration of the different stages, and the events that occur in each stage. 2. State the composition and mode of secretion of the gastric juice. What are its functions? How have these functions been determined? 3. Describe the structure of a large, a medium-sized, and a small artery: and explain the manner in which the circulation of the blood is influenced by the modifications of structure in these different-sized vessels. 4. Describe the structure of nerve-fibres. Of what is their essential part composed? How may the functions of a nerve be determined? 5. Give the structure of unstriated muscular tissue. State the principal situations in which it is found. Compare its mode of contraction with that of striated muscle. 6. Describe the structure of the iris. State in what conditions and for what purposes the pupil is physiologically contracted. Candidates were required to answer *four*, and not more than that number, out of the six questions.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on June 29th:—

Aslett, George Stratten, Oaklands, near Carmarthen.
Beevor, Hugh Reeve, King's College Chambers, Strand, W.C.
Chadwick, Chas. Montague, Philip-street, Commercial-road, E.
Edwards, George Frederick, Derby.
Fenwick, Edward Herbert, 59, Harley-street, W.
Fink, George Herbert, Regent's-park College, N.W.
Lynam, Robert Gurney, The Quarry, Stoke-on-Trent.
Penhall, William, 14, Farringdon, E.C.
Milton, Herbert Meyrick N., Richmond-terrace, Clapham.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Smith, John Charles, Charing-cross Hospital.
Spiller, Frederick Winstanley, Birmingham Hospital.

At the recent examination for the Prizes in Botany given annually to medical students by the Society of Apothecaries, the successful candidates were:—

1st, John Barker Smith, of Thomas's Hospital—A Gold Medal.
2nd, Charles Percival Cox, of St. Bartholomew's Hospital—A Silver Medal and Books.

NAVAL, MILITARY, ETC., APPOINTMENTS.

St. James's Palace.—The Queen has been pleased to appoint Patrick Heron Watson, Esq., M.D., F.R.C.S. Edin., to be one of the Surgeons-in-Ordinary to Her Majesty in Scotland, in the room of Professor Spence, deceased.

ADMIRALTY.—Staff-Surgeon Mark Anthony Harte has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of June 15, 1882.—Fleet-Surgeon John Rorie has been placed on the retired list from the 25th inst., with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

WAR OFFICE: MEDICAL DEPARTMENT.—Surgeon-Major Thomas William Wright has been granted retired pay with the honorary rank of Brigade-Surgeon.—Surgeon-Major Robert Hyde from half-pay to be Surgeon-Major, *vice* E. McGrath, promoted.

BIRTHS.

CONSTABLE.—On June 27, at 127, Kennington-park-road, S.E., the wife of Joseph J. Caffry Constable, M.D., of a daughter.

FENN.—On June 28, at Diss, Norfolk, the wife of C. D. Fenn, M.R.C.S. of a son.

MORSE.—On June 23, at 12, Prince of Wales-road, Norwich, the wife of Thomas Herbert Morse, M.R.C.S., L.R.C.P., of a daughter.

SEDGWICK.—On July 2, at 12, Park-place, Upper Baker-street, the wife of William Sedgwick, Esq., M.R.C.S., of a daughter.

MARRIAGES.

BALLETT—FAIRTHORNE.—On June 24, at Wallingford, Berks, Albert Henry, son of Charles A. Barrett, M.R.C.S., of Appleton House, Wallingford, to Augusta Mary Anne Greenwood, daughter of the late Benjamin Fairthorne, Esq., of 86, Richmond-road, Westbourne-park, W.

BIRCH—SCOTT.—On June 3, at St. Paul's Church, Landour, India, Wm. James Birch, Captain 6th Bengal Light Infantry, to Dora Waiora, second daughter of Dr. Horatio Scott, Surgeon-Major A.M.D.

CAMPBELL—WARD.—On June 8, at Quebec, George A. Campbell, Esq., of Montreal, to Mary Halsnod, daughter of T. W. Ward, Esq., Inspector-General of Hospitals (retired), of H.M. Bombay Medical Service.

CASKIE—MACDONALD.—On June 29, at Islington, John Boyd Caskie, M.D., of 89, Goswell-road, E.C., to Hannah, daughter of the late Frederick Macdonald, Esq., of Devonshire-street, W.C.

COOPER—FLOWER.—On July 4, at St. George's Church, Hanover-square, by the Rev. Wm. Heath Marsh, rector of Lamonas, Norfolk, uncle of the bridegroom, Alfred Cooper, Esq., F.R.C.S., to Lady Agnes Flower, widow of the late Herbert Flower, Esq., and youngest daughter of the late Earl of Fife, K.T.

DALGETY—HILL.—On June 28, at St. Pancras Church, Captain Edmund H. Dalgety, Cape Infantry Regiment, to Margaretta G. H., younger daughter of Samuel Hill, Esq., M.D., of Mecklenburgh-square, W.

JOHNSTON—ARNOTT.—On June 28, William Johnston, M.D., Surgeon-Major A.M.D., to Charlotte, daughter of the late James Arnott, Esq., of Leithfield, Kincardineshire, N.S.

MASSEY—MORRIS.—On June 28, at the parish church, Croydon, Hugh Tibsley Massey, L.R.C.P., elder son of Albert Massey, M.D., of Camberwell, to Eliza Jessie, younger daughter of William Henry Morris, of South Norwood.

MORTIMER—CROWE.—On June 30, at Trinity Church, Cleygate, Esher, John Kesmond Mortimer, M.R.C.S., L.S.A., to Katie, youngest daughter of the late Alexander Crowe, Esq., of Woodcote-grove, Epsom

TURLE.—EVEHARD.—On July 4, at the parish church, Narborough, Arthur Turle, M.R.C.S., of Enderby, to Sophia Louisa, only daughter of William Everard, of Narborough Wood House, Leicestershire.

WARD—ANDREWS.—On July 3, at St. Mary Abbott's, Kensington, Henry Ernest Ward, to Rachel Andrews, daughter of the late Surgeon-Major Charles Gould Andrews, H.M. Bengal Army.

DEATHS.

BALL, TERTIUS, M.D., retired Surgeon-Major, Army Medical Department, at Bruce-grove, Tottenham, on July 2, in his 56th year.

BREW, CHARLES ADAMS, M.R.C.S., at Pontrhydyrun, near Newport, Mon., on June 29, in his 63rd year.

GOOLDEN, KATHERINE, widow of Richard Henry Goolden, M.D., late of 1, Sussex-gardens, W., on June 23, in her 68th year.

KNAGGS, SYDNEY HENRY, M.R.C.S., late of New Hampton, Middlesex, at Stratford Lodge, Folkestone, on July 3, in his 46th year.

LEWIS, H. HARMAN D., M.R.C.S., L.S.A., on June 25, aged 54.

LING, EDWARD CLAYTON, M.R.C.S., L.S.A., at Abbotsford, Torquay, on June 28

MURDOCH, ANNE LOUISA CATHARINE, wife of James Murdoch, F.R.C.S.E., and elder daughter of Professor W. G. Blackie, D.D., of Edinburgh, on June 29, at Dunedin, New Zealand

NEWINGTON, SAMUEL, M.A., M.R.C.P., of Ridgeway, Tiechurst, on July 3, aged 68.

RIX, LAURA ANNE, widow of William Beloe Rix, M.R.C.S., at Epsom, on June 26, aged 69.

SEARLE, JANE MARY, widow of Henry Smith Searle, F.R.C.S., formerly of Kennington, at Donyngs Villa, Redhill, on July 1, aged 76.

THOMPSON, GODFREY WYCLIFFE, youngest son of Reginald E. Thompson, M.D., at 43, Cheyne-walk, Chelsea, on June 29, aged nine months

VALPY, WILLIAM HENRY, M.D., second son of the Rev. F. E. J. Valpy, M.A., late rector of Gurveston, Norfolk, on July 4, aged 53.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CHILDREN'S HOSPITAL, BIRMINGHAM.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance in the institution. Candidates must send certificates of registration and testimonials, not later than July 18, to the Secretary, Steelhouse-lane, Birmingham.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer. (*For particulars see Advertisement.*)

COUNTY HOSPITAL, SHREWSBURY.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing. Candidates must be registered practitioners, and not over thirty years of age. Applications, with not more than six recent testimonials, to be sent to the Medical Superintendent, at the Asylum, on or before July 14.

GENERAL LYING-IN HOSPITAL, YORK-ROAD, LAMBETH.—House-Physician. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Reading and Wokingham District School.—The office of Medical Officer for the School is vacant by the death of Mr. J. Taylor: salary £50 per annum.

Scarborough Union.—The Filey District is vacant by the death of Dr. C. W. Scrivener; area 14,607; population 4075; salary £40 per annum.

APPOINTMENTS.

Hendon Union.—Percy Pope, M.R.C.S. Eng., L.R.C.P. Edin., to the Weald District.

Kingston Union.—James H. Comber, L.R.C.S. Edin., L.A.H. Dub., to the Lower Wimbledon District.

St. Germans Union.—John W. Gill, L.R.C.P. Lond., M.R.C.S. Eng., to the First District; and Richard C. Revell, M.R.C.S. Eng., L.S.A., to the Fourth District.

Wellingborough Union.—Frederick Nicholas Heygate, M.R.C.S. Eng., L.S.A. Lond., to the Finedog District.

PRESENTATION.—On Wednesday, July 5, a committee that had been formed among the friends of Dr. Langdon Down's patients at Normansfield, presented him with an admirably executed bust of himself in marble, by Mr. J. Sherwood Westmacott, to mark their great appreciation of the devoted care and skill their relatives had received at his hands.

COLOSSAL DOSES OF BELLADONNA IN DYSENTERY.—A young married lady in the middle of October arrived at Shanghai from another port, dying, gangrene of the bowel having already set in. The motions were scanty but extremely frequent, and consisted solely of blackish-green sloughs of various sizes, and blood-clot, with occasionally a smart gush of hæmorrhage. Excessive loss of blood, and probably the treatment adopted, had prevented the appearance of the more acute symptoms of general peritonitis, but the abdomen was distended and tympanitic, and its entire surface so sensitive that it was impossible to discover whether any fluid effusion was or was not present. Thirst was intense, and vomiting incessant, but both were more or less controlled by ice and hydrocyanic acid. The patient lingered for five days after her arrival, during the first two of which a marked and puzzling symptom was furious delirium, with extraordinary hallucinations, lending an indescribable expression of terror to the face, which the natural course of the disease had rendered yellow and pallid. Wide and persistent dilatation of the pupils led to minute inquiries into the previous treatment, when it was discovered that through some misapprehension colossal doses of belladonna had been administered. The patient had been taking pills containing half a grain of opium and a quarter of a grain of sulphate of zinc, with extract of belladonna "q.s." Each pill weighed eight grains. Hence, if nothing but what appeared in the prescription entered into its composition, the dose, which was ordered to be given six times daily, contained seven grains and a quarter of extract of belladonna. The pills had however been, in fact, taken only four times one day and three times the next, and had been omitted on the third day. Thus, always supposing that nothing but the three ingredients above enumerated was contained in the pills, fifty grains of extract of belladonna had been swallowed in two days. It is to be presumed that the extract had suffered from the effects of climate and age. The prescription, it should be remarked, had been made up by a Chinese dispenser.—*Dr. Alexander Jamieson, in the Chinese Imperial Maritime Customs Medical Reports*, August, 1881.

CARBOLIC ACID IN HERPES ZOSTER.—In the *Philadelphia Med. Reporter*, May 6, Dr. Bamber states that he has found zoster most effectually and rapidly cured by means of a drachm of carbolic acid combined with an ounce of ung. hydr. nit., applied freely twice a day, the parts being afterwards covered with cotton and oiled silk. In a former number of the journal Dr. Boardman reported the rapid efficacy of an application of carbolic acid two drachms, olive oil one ounce.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 1, 1882.

BIRTHS.

Births of Boys, 1266; Girls, 1204; Total, 2470.
Corrected weekly average in the 10 years 1872-81, 2503·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	682	621	1303
Weekly average of the ten years 1872-81, corrected to increased population ...	740·2	670·5	1410·7
Deaths of people aged 80 and upwards ...	...	...	45

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	10	3	3	9	...	2	...	8
North ...	905947	...	5	6	1	24	...	4	...	7
Central ...	282238	...	1	2	...	3	...	...	...	6
East	692738	...	9	10	2	20	...	2	...	12
South	1265927	...	26	9	6	23	1	3	...	8
Total	3816483	...	51	30	12	79	1	11	...	41

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29·913 in.
Mean temperature ...	59·9°
Highest point of thermometer	74·1°
Lowest point of thermometer	45·7°
Mean dew-point temperature	53·6°
General direction of wind ...	Variable.
Whole amount of rain in the week	0·20 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 1, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending July 1	Deaths Registered during the week ending July 1.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2470	1303	17·5	74·1	45·7	60·0	15·56	0·20	0·51
Brighton	109595	59	28	13·3	72·3	50·0	60·0	15·56	0·70	1·78
Portsmouth ...	129916	71	40	16·1	...	...	...	...	...	...
Norwich	88824	50	23	13·5	...	...	...	...	...	...
Plymouth	74449	51	24	16·8	70·5	49·9	57·5	14·17	0·49	1·24
Bristol	210134	138	65	16·1	72·5	47·0	58·1	14·50	0·77	1·96
Wolverhampton .	76756	5	14	9·5	72·4	47·2	57·7	14·28	0·10	0·25
Birmingham ...	408532	292	125	16·0	...	...	...	...	...	...
Leicester	126275	87	41	16·9	71·8	45·0	58·1	14·50	0·24	0·61
Nottingham ...	193573	156	67	18·1	...	...	...	...	...	...
Derby	83587	53	31	19·4	...	...	...	...	...	...
Birkenhead ...	86582	60	29	17·5	...	...	...	...	...	...
Liverpool	560377	404	239	22·3	...	...	...	...	...	...
Bolton	106767	71	48	23·5	71·5	47·0	56·9	13·83	0·04	0·10
Manchester ...	340211	241	159	24·4	...	...	...	...	...	...
Salford	184004	165	77	21·8	...	...	...	...	...	...
Oldham	115572	57	48	21·7	...	...	...	...	...	...
Blackburn	106460	110	33	16·2	...	...	...	...	...	...
Preston	97656	87	47	25·1	...	...	...	...	...	...
Huddersfield ...	83418	48	20	12·5	...	...	...	...	...	...
Halifax	74713	38	29	20·3	...	...	...	...	...	...
Bradford	200158	146	75	19·6	74·4	46·8	58·3	14·61	0·32	0·81
Leeds	315998	240	93	15·1	...	...	...	...	...	...
Sheffield	290516	193	100	18·0	...	...	...	...	...	...
Hull	158814	108	63	20·7	...	...	...	...	...	...
Sunderland ...	119065	106	30	13·1	70·0	48·0	56·2	13·44	0·56	1·42
Newcastle	147626	117	54	19·1	...	...	...	...	...	...
Cardiff	83724	70	31	18·7	...	...	...	...	...	...
For 28 towns ..	8469571	5739	2935	18·1	74·4	45·0	58·1	14·50	0·38	0·97
Edinburgh	232440	134	87	19·5	67·6	44·0	56·5	13·61	0·45	1·14
Glasgow	514048	389	227	23·0	...	...	...	...	...	...
Dublin	348293	232	138	20·7	71·8	40·0	57·5	14·17	0·16	0·41

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·91 in. The lowest reading was 29·77 in. at the beginning of the week, and the highest 30·00 in. on Wednesday at noon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Correction.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your last number you publish the names of the students who passed the L.S.A. on June 22. I beg to state that my name is not "Percy," as is printed there, but "Perez." I am, &c.,

26, Bedford-place, W., July 4. George V. Perez.

Post-mortem Examinations in Prisons.—An order has been issued by the Home Secretary to all coroners in whose bailiwicks a prison or prisons are situated, directing that in future, in all cases where an inquest is to be held in a prison in any of Her Majesty's gaols, a medical men entirely unconnected with the prison is to be employed to make the post-mortem examination, and give evidence at the inquest. In the coroner's hands alone is left the selection of the independent medical man to perform the duty.

Venalles.—From the Italian census of December 31, 1881, in the twenty-four capitals of provinces, the average result is that a little more than 50 per cent. of the inhabitants know how to read and write—a considerable increase since 1871.

Vivisection Experiments.—The recent official report of the inspectors in England and Ireland of experiments performed on living animals by persons holding licences under the Vivisection Act, shows that in Great Britain there were about two hundred and seventy experiments performed during the year, and the inspector states, it may be confidently said that during the year no case has arisen in which it was found necessary to inflict pain, except of the most trivial nature, in the prosecution of scientific inquiry. The Irish inspector reports that about forty experiments were made, and that "no appreciable suffering has been caused to the creatures experimented on."

Contravening the Registration Act.—A farm servant at East Bearford, Haddington, has been committed for trial on a charge of registering an illegitimate child as legitimate, in contravention of the Act.

A Cautious Druggist.—The question whether a druggist is in duty bound to administer a large and dangerous dose of a poisonous drug on the recommendation of a physician's prescription, has been decided by the Court of Common Pleas of New York in favour of the druggist. A certain lady presented herself at the shop of a chemist in that city with a prescription, on which was written the request that sixty drops of laudanum should be given on the spot to the bearer. The chemist refused to take the responsibility of complying with this request, but he administered ten drops; and an action was brought against him in consequence of its being alleged that the dose actually given, instead of doing any good, really proved injurious. The Court ruled that even if he acted upon the recommendation of a physician, a druggist knowingly administering a dangerous drug which should cause death would be liable to indictment for manslaughter.

Health of Wrexham.—The Medical Officer of Health has reported to the Town Council that the death-rate of Wrexham was as low as 20 per 1000. He recommended the conversion of some cottages at the Dunks Sewage Farm into a fever hospital. The matter was referred to a committee.

R. N. C.—The Metropolitan Local Government Officers') Association now numbers amongst its members the principal officers connected with vestries and district boards. The Association holds its meetings at the Law Institute, Chancery-lane.

Cheap Dinners and Savoury Pies.—Some pieces of mutton, veal, and pork seized by the Sanitary Inspector of St. Pancras at a cheap eating- and coffee-house in the Gray's-inn-road, near Swinton-street, which were unfit for human food, have been condemned by the Clerkenwell police magistrate. In addition to supplying "cheap dinners," the proprietor was in the habit of selling cheap savoury pies. The meat seized, it was suspected, was to be minced and used for the pies.

Johnstone.—The total number of medical students at Owens College, Manchester, in the last session was 277.

Model Lodging-houses.—The rate of mortality in the dwellings of the Society for Improving the Conditions of the Labouring Classes for the past year has been only 15 per 1000. All the Society's lodging-houses are fully tenanted.

The Tyrol.—A correspondent writes from Innsbruck to a contemporary, touching reports circulated to divert tourists from visiting the Tyrol as to the existence of disease there. He says—"There is no better method of refuting these injurious reports than by referring to the medical statistics, which prove that contagious and epidemic diseases are so rare that very few countries enjoy as much freedom from either. The great age to which the natives live is another proof, if one were needed, in favour of the hygienic and climatic conditions of this beautiful country."

Inquirer.—Yes; the Duke of Argyll, who is the proprietor of Iona, does not permit liquor to be sold in its two hotels.

THE DEATH OF GARIBALDI.

"*Quanto è allegro*"

Just as the sun in gold and purple dye
Sheds its last glory o'er Caprera's isle,
The sinking hero, with a faint sweet smile,
Beholds a feathered minstrel of the sky
His paean chant of gratitude and glee
Within the casement's open lattice frame.
"How joyful 'tis!" those pallid lips exclaim;
The martial soul then, eager to be free,
Triumphant breaks its prison bonds of clay,
To wear on high the victor's deathless bay.

CLARENCE FOSTER.

Water Supply, Paris.—With the view of obviating the inconvenience experienced last year in Paris from the summer drought, the municipal authorities have taken measures to increase considerably, this year, the resources for watering, so as to economise the water indispensable for domestic use. The scheme proposed will, if required, furnish a daily supply of 6000 cubic metres in addition to the normal quantity.

A Sufferer, Willesden.—In almost all the actions brought against brick manufacturers nothing more than a nuisance has been established. In France, we believe, persons whose property has been injured by the fumes arising from the brick-furnaces can recover an indemnity from the owners of the brickfields for the loss sustained.

Low Mortality at Rutherglen.—The medical officer's report for the month of May to the Rutherglen Town Council states that there had been only fifteen deaths registered, giving an average mortality of 7·13 per 1000, or one in every 582 individuals.

Factory Inspection.—The Home Secretary, in replying to a deputation from the trades' unions from various parts of the country, to urge upon him the necessity of increasing the number of inspectors of factories and workshops, expressed his entire sympathy in the object they had in view; but as the proposal involved an increase of expenditure, the matter would rest with the Treasury. The impossibility of insuring a thorough inspection by the existing staff needs no demonstration. The deputation suggested the appointment of a sub-inspector to assist each inspector, thus doubling the number of the present staff.

Suburban.—Only within the last quarter of a century has a system of drain-laying been introduced which allows of frequent inspection—a useful custom which the jerry builder honours more in the breach than the observance.

The late Dr. Riggs, Bath.—The Bath Guardians' Society has passed a vote of condolence with the widow of this deceased gentleman, who was the oldest member of the Committee, expressing the great loss the Society has sustained by his death, and acknowledging the valuable services he rendered to, and the warm interest he took in, the affairs of the Society.

A. A., Greenwood.—Any local authority may direct the detention of bed furniture or other articles which have been exposed to infection, and *may* give compensation for the same. Every urban authority, not being the council of the borough, is to hold an annual meeting, and a meeting for the transaction of business at least once a month.

Champagne.—The recent revelations of how champagne is manufactured without grapes is probably an old story; but it is evident, at least, that trust must not be put in branded corks. There is a trade in these corks conducted by some of the waiters in London. The uses to which they are put can readily be guessed.

A Drunkards' Conference.—It is reported that a National Drunkards' Conference has been held at Arnolds, in Indiana. It was attended by about 20,000 drunkards from all parts of the United States. The next annual assembling is appointed to take place at Topeka, Kansas.

Duncan, W.—Although the death-rate, as recently reported by the medical officer, is low, the town of Margate is stated to be in an unsatisfactory sanitary condition. A Local Government Board inspector held an inquiry on the question in March last. The result, it is hoped, will be an order requiring the town authorities to efficiently sewer the borough.

COMMUNICATIONS have been received from—

Dr. J. W. MOORE, Dublin; Mr. G. V. PERRY, London; Mr. T. HOLMES, London; EDINA, C. NEAME, Faversham; Mr. J. CRATTO, London; Dr. GODHART, London; THE SECRETARY OF THE CHARITY ORGANISATION SOCIETY, London; THE WARDEN OF THE LONDON HOSPITAL MEDICAL COLLEGE; MRS VICTORIA E. WOODHILL, U.S.A.; Dr. CLIFFORD ALLBUTT, Leeds; Dr. R. BALLOTA TAYLOR, Santillana; Mr. R. COPEMAN, London; Dr. JOHN C. LUCAS, India; Mr. A. H. WILDY, London; Dr. ANGEL MONEY, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Mr. R. J. GODLEE, London; Mr. H. WEATHERHEAD, London; Mr. JOHN KEPP, London; THE REGISTRAR-GENERAL, Dublin; Dr. ROSS, Manchester; THE SECRETARY OF THE SANITARY INSTITUTION OF GREAT BRITAIN; THE SECRETARY OF THE ANTHROPOLOGICAL INSTITUTION OF GREAT BRITAIN; THE REGISTRAR-GENERAL OF SCOTLAND; Dr. DOMETT STONE, London; Dr. ROBERTSON, Buxton; Mr. R. JACKSON, Bradford; Dr. NORMAN CHEVERS, London.

BOOKS, ETC., RECEIVED—

La Lithotritie, par le Dr. Reliquet—Report of the Medical Officer of Health of the BURTON Urban District for the Year 1881—Twenty-third Annual Report of the Royal Edinburgh Hospital for Sick Children—Fifty-eighth Annual Report of the Glasgow Eye Infirmary—Is the Habitual Use of Opium in Moderation Injurious? by Deputy Surgeon-General Moore, Honorary Surgeon to the Viceroy of India, C.I.E.—"Lancet" and "Argus" on Typhoid Fever in Melbourne, by William Thomson, F.R.C.S.—Braithwaite's Retrospect of Medicine, vol. lxxxv., January to June, 1882—Winters Abroad, by R. H. Otter, M.A.—On Baldness and Greyness, by Tom Robinson, M.D.—Experimental Physiology, by Richard Owen, C.B., M.D., F.R.S.—Report on the Health, etc., of Kensington, by T. Orme Dudfield, M.D.; Medical Officer of Health—Annual Report of the Hospital for Women, Soho square—Clinical Lectures on Diseases of the Nervous System, by Thomas Buzzard, M.D.—Borough of Nottingham: Report of the Health Committee—Regulations of Queen's College, Cork—Hothouse Education, by J. A. Digby—A Political Programme

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Medicale—Le Progrès Medical—Bulletin de l'Academie de Medecine—Pharmaceutical Journal—Wiener Medizinische Wochenschrift—Revue Medicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynakologie—Le Concours Médical—Ciencias Medicas—Gazzetta degli Ospitali—Medical News—Unino Medica—National Anti-Compulsory Vaccination Reporter—Journal de Saxon—Edinburgh Medical Journal, July—Western Medical Reporter—Oracle—Birmingham Medical Review, July—Practitioner, July—Philanthropist—Detroit Lancet—Capel-court Monthly Journal—Veterinarian, July—Monthly Homœopathic Review, July—Philadelphia Medical Times—Modern Thought, July—Journal of the Chemico-Agricultural Society of Ulster—Zeitschrift für Diagnostik und Therapie—Boston Medical and Surgical Journal—Indian Medical Gazette—Glasgow Medical Journal, July—La Presse Medicale.

APPOINTMENTS FOR THE WEEK.

July 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

10. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 4, Grosvenor-gardens, S.W., 8½ p.m. Special Meeting, devoted to African Anthropology. General Pitt Rivers, F.R.S., President, "Note on the Egyptian Boomerang." Right Hon. Lord Talbot de Malahide, F.R.S., "On the Longevity of the Romans in North Africa." Captain R. F. Burton and Commander V. L. Cameron, R.N., "On Neolithic Stone Implements, etc., from Wásó on the Gold Coast." Mr. M. Hutchinson—Exhibition of Bushman Drawings, with Note by Mr. W. L. Distant.

12. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

SANITARY INSTITUTE OF GREAT BRITAIN, 3 p.m. Anniversary Meeting, to be held in the Theatre of the Royal Institution. Mr. Edward C. Robins, "On the Work of the Sanitary Institute of Great Britain."

14. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 11 a.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

MUNIFICENT BEQUESTS.—The late Mr. Asa Lees, of the Soho Iron Works, Oldham, and of Ashton-under-Lyne, has bequeathed £10,000 each to Owens College, Manchester, to the Oldham Infirmary, and to the Royal Albert Asylum, Lancaster.

RECENT CENSUSES.—The following are the results of the most recent censuses taken in 1880 and 1881:—United States, 50,155,783, increase since the preceding decennial census 3008 per cent. per annum; Greece, 1,677,478, increase 1·531 per cent.; United Kingdom, 35,246,562, increase 1·108 per cent.; Switzerland, 2,846,102, increase 0·663 per cent.; Italy, 28,452,633, increase 0·616 per cent.; Austro-Hungary, 37,615,900, increase 0·459 per cent.; Sweden, 4,565,668, increase 0·426; France, 37,321,186, increase (in nine years only) 0·345 per cent.—*Revue Scientifique*, June 3.

THIRTY-THIRD SESSION OF THE

GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

SIXTH DAY—MONDAY, JULY 3—*Continued.*

THE Council having resumed.

The Committee to inquire into the uses and abuses of unqualified assistants was nominated, the members being —Dr. Chambers (chairman), Dr. Lyons, Mr. Marshall, Mr. Simon, and Dr. Watson.

Professor HAUGHTON then suggested that the representatives of the nine bodies whose examinations had been visited should have an opportunity of making any statements that they thought fit upon the Report of the Visitors.

This was opposed by several members, on the ground that the Colleges had had full opportunities of making any answers to the Report of the Visitors that they thought necessary, and had already availed themselves of those opportunities.

After some discussion, on Dr. Lyons moving that the order of June 29 (by which the Council resolved to proceed to the consideration of the Report on Examinations, and the remarks of the corporations on the Report) be discharged, it was agreed that the representatives of the nine bodies had technically a right to make any observations they saw fit on the Report of the Visitors.

Dr. AQUILLA SMITH said he wished to call the attention of the Council to a statement in the Report of the Visitors in connexion with some remarks made by Mr. Teale the other day at the Council. In the preface to their Report the visitors stated that they had not, as their predecessors had, printed any of the written answers of the candidates, but they had collected the actual answers or copies of them selected from the examinations of each body, which answers had been placed in sealed packets in the archives of the General Medical Council. Mr. Teale was reported, in the *Medical Times and Gazette*, to have said that the College of Physicians of Ireland had responded to a request of the visitors sent to the various bodies, and had forwarded some answers of candidates who displayed remarkable ignorance in their preliminary examinations, which answers he (Mr. Teale) had found to be deficient in spelling, and some shockingly weak in Latin. It was the duty of the visitors to have examined those documents, and to have given the Council some idea as to whether those answers which showed such defective education and so much bad Latin were taken into account in the pass of the candidate or not. It was not in the power of the visitors to do that now, as Mr. Miller, the Registrar, had declined to allow anybody to inspect the documents. He (Dr. Aquilla Smith) did not wish to make any complaint against the visitors, but he felt that it was an omission on their part not to have ascertained whether the answers which Mr. Teale had referred to as being so weak had been counted in the pass of the candidate.

Dr. HALDANE said he wished to call the attention of the Council to various points which had not been alluded to. The first objection that the College of Physicians of Edinburgh had to the Report was that it did not represent the visitors' opinion as to the character of the examinations. The visitors, in the preface to their Report, said:—"In another respect also the visitors have not followed the precedent of former visitations. They have refrained from expressing opinions as to the judgment formed by the examiners in passing or rejecting candidates, feeling that such judgment ought to rest solely with those who are responsible for the examination, and, moreover, that the standard of any examination cannot be fairly taken from the individual judgment of the examiner." If that view of the visitors were correct there was no use in having visitations at all. The great object of the visitation was to find out the weak points in the examinations of the candidates, and to lay them before the Council, so as to give the different bodies an opportunity of correcting the errors into which they had fallen. The visitors began by stating that there was good in all the examinations, but they carefully avoided expressing any opinion as to the value of the examinations in testing the candidates. No doubt it was a disagreeable duty to perform, but to make the visitation effectual it was absolutely necessary to perform it. Again, the visitors had confined their remarks to the double qualification given by the Colleges of Physicians and Surgeons, omitting to notice altogether the single examinations of each of those bodies. In this he thought the visitors had erred, because they should have reported upon each of the examinations of those bodies separately, and then reported with regard to the double qualification. The question of conjoint examinations had been before the profession and the public for years, and it would have been well to have had the opinion of the visitors as to how this union of the two bodies worked. Then with regard to the mode in which the examiners of the College of Physicians of Edinburgh were appointed, the visitors had fallen into an error, because in answering the question whether the examiners were elected to examine in special subjects, they said—"To a certain extent, *i.e.*, after election they are assigned to special groups of subjects." That was not correct, because the examiners were elected purely from their special knowledge of different subjects. Again, the visitors said—"The examination for the double qualification of the Glasgow Faculty pertains also to that of the College of Physicians of Edinburgh, but of this examination the 'primary' witnessed by the visitors was conducted almost exclusively by the Glasgow examiners, those from Edinburgh acting merely *pro formâ*, while at the final the Edinburgh examiners took fully an equal part in the examination." This was altogether erroneous, because it was not the fact that the examinations were *pro formâ*. A perfectly equal share was taken by the different examiners. The visitors were also in error in stating that in the double qualification examination there was no practical examination in chemistry. This was shown by the Report of the Visitors themselves, because they stated in another part that a candidate was called upon to undergo that examination. With regard to the clinical examination, the visitors had been led into error in stating that the number of patients which the candidates had an opportunity of being examined upon was very limited.

Dr. HERON WATSON said the gist of all that the College of Surgeons, Edinburgh, had to say with reference to the Report of the Visitors was contained in the remarks of the College on the Report; but he would like to call the attention of the Council to the fact that under the general regulations for the visitation of examinations of 1876 it was the duty of the visitors especially to inquire into, and report to the Council as to, the sufficiency of the examinations conducted by the several licensing bodies as tests of the candidates' fitness to obtain the respective qualifications. He would ask the representative of the visitors present whether they found that the examinations conducted in connexion with the Royal College of Surgeons, Edinburgh, were not sufficient to test the candidates' fitness to obtain their respective qualifications. No answer to that was to be found in the Report of the Visitors, although some peculiar circumstances, containing what he might call an oblique innuendo, were set out, which might be taken to be an answer. At page 34 the visitors stated that "they felt bound to notice certain respects in which the examination appeared to fall short"—not of the requirements of the Medical Council, but "of the requirements considered necessary by other examining boards that they had inspected." The visitors either had not the courage of their opinions, or they wished to put them in such a complicated form as that they could not be made responsible for them hereafter. On page 19 of the Report the visitors said: "At the Royal College of Physicians and Surgeons, Edinburgh, the very questionable practice still prevails of framing at the beginning of the year the questions for the written part of the several series of examinations; while in the arrangements for each examination the written answers are read and decided upon by examiners who may not have been responsible for the questions put, and the *viva voce* part is conducted by different examiners, who may, and often do, ask the same questions as have been already given in writing." He (Dr. Watson)

had sought in vain throughout the third part of the Report for the faintest trace of anything to support that allegation. Mr. Teale had informed the Council that the visitors had detected various errors in their Report, but he had not told the Council what those errors were, and he (Dr. Watson) should like to know how far the visitors had changed their minds with respect to certain matters contained in the Report. They also stated that the character of the examination in anatomy was unsatisfactory, the reason for that statement being, so far as he could discover, that no dissection test was employed as part of the examination; but with reference to the examination of dissected specimens which the student could handle, and the written and *viva voce* examinations, he could find no difference either in character or extent between the examinations of the Colleges of Physicians and Surgeons, Edinburgh, and the examinations of the other bodies who examined in anatomy.

Professor HUMPHRY thought it was not a proper course of proceeding for the Council to listen to the observations of the representatives of the bodies who had been visited on the Report of the Visitors, those bodies having had a full opportunity of making any remarks on the Report that they thought proper.

Dr. HALDANE said that the Colleges wished to know from Mr. Teale whether the visitors were satisfied with the answers of the Colleges, or whether they were still of opinion that the Colleges were in the wrong.

Mr. SIMON thought it was understood that if the visitors found anything to correct in their Report they would submit a further report.

Mr. TEALE, in reply, thought that as he represented two absent colleagues, he was not at liberty to answer the questions which had been put to him without consultation with them. With regard, however, to the non-printing of the answers of the candidates, as that was a matter which rather affected the action of the Council, he might explain that the answers had not been printed because they were so numerous that it was impossible to print them all, and in selecting typical papers the visitors felt that they would be in danger of being unjust to the various bodies—they might select a fairly representative pass from one body, and one that was hardly a fairly representative pass from another body. Then again, to have got the prints anything like accurate as regards the exact spelling employed in the papers would have entailed such a great consumption of time that the visitors gave up the idea; but in order not to take the matter out of the hands of the Council, the answers had been preserved, and they could be printed if the Council thought fit.

The PRESIDENT then put the motion, which was carried unanimously, and the Council adjourned.

SEVENTH DAY—TUESDAY, JULY 4.

The case of John Wise Wilson was the first business to occupy the Council. This was the case of a registered practitioner who had been convicted of a misdemeanour. A copy of the conviction had been already forwarded to the Council, and their opinion was taken as to whether, under Clause 29 of the Act, his name ought to be erased from the Register. The conviction ran as follows:—

John Wise Wilson, of the township of Whitby, North Riding, surgeon (hereinafter called the defendant), is this day convicted before this Court of being an idle and disorderly person within the intent and meaning of the statute of the fifth year of the reign of His late Majesty King George the Fourth, chapter eighty-three, for that he, on the second day of September, 1881, at the township of Whitby, in the said Riding, did unlawfully wander abroad, and lodge in a certain outhouse, to wit, a coal-shed there, the said John Wise Wilson not having then any visible means of subsistence, and not giving a good account of himself, contrary to the form of the statute in such case made and provided. And it is adjudged that the defendant be for his said offence imprisoned in Her Majesty's prison at Northallerton, in the said Riding, and there kept to hard labour for the space of fourteen days.

It appeared that there were several John Wilsons on the Register, and one of Whitby, but no John Wise Wilson; and a motion by Dr. PITMAN, seconded by Professor TURNER, was laid before the Council asking for further information, but—

Professor HAUGHTON said the conviction disclosed a very slight offence, and it was absurd to call it a misdemeanour. Even if it were proved that this was the man, the offence he had committed, he (Professor Haughton) would himself be guilty of if he had no other place to go to. He could see no moral offence in the thing at all. (Applause.)

It was then moved, seconded, and unanimously agreed to, that no further steps should be taken in the matter.

The Council's solicitor, Mr. Farrar, then attended in connexion with the case of David Beatson Murdoch, against whom a charge had been brought of disgraceful conduct in the practice of his profession, disclosed upon oath during the proceedings of two inquests held by Sir John Humphreys on the 7th ult., a report of which, taken from the *Telegraph*, was sent to the Council by Mr. Carpenter, the Honorary Secretary of the Medical Alliance Association. It appeared that in a subsequent communication Mr. Carpenter stated "that the name of the practitioner complained of is David Beatson Murdoch, and not David Wilson Murdoch, as given in the newspaper reports; that a warrant has been obtained against Mr. Murdoch's assistant, 'Colonel' Griffin, known as the 'Black Doctor,' whom the Association 'intend to prosecute at once, though the greatest offender morally is Dr. Murdoch'; and handbills were enclosed, whereof one announces the re-opening of the dispensary at 149, St. Leonard's-road, Poplar, 'conducted by physicians and surgeons,' and another states that this dispensary 'is conducted for the public benefit by D. B. Murdoch, assisted by other medical attendants,' and that the author of a handbill affirming the contrary 'is a liar.' The newspaper reports state that Mr. Murdoch admitted himself the owner of three different dispensaries at the East-end, at the following addresses:—149, St. Leonard's-road; 37, Ben Jonson's-road, Stepney; and 165, Kingsland-road; that at one of these dispensaries an unqualified assistant, the aforesaid 'Colonel' Griffin, 'apparently a half-caste,' was in the habit of attending patients on his behalf; that in the cases of the deaths of two children, death certificates had been signed by Griffin—who, 'in the country to which he belonged,' was said to be a barrister—assigning a wrong cause of death, as proved by a subsequent post-mortem examination; and that, although Mr. Murdoch disclaimed having given Griffin any authority to sign death certificates in his name, the jury at the inquest severely censured him for allowing Griffin and other unqualified persons to practise in his surgery." The case formed the subject of a question in the House of Commons on Monday, June 12, 1882, as reported hereunder in the *Times* of Tuesday, June 13:—

Mr. H. Samuelson asked the Secretary of State for the Home Department whether his attention had been called to recent cases of the treatment of the sick by unqualified medical practitioners at dispensaries at the East end of London, to the death of two children so treated, and to the observations of the coroner at the inquest upon them, on June 5, to the effect that it appeared that a certain qualified doctor (who kept several dispensaries) now and the children a few minutes before its death, and was thereby enabled to "cover the delinquencies of the other person"—the unqualified person who had treated the case in the dispensary—and that "it was no doubt an unsatisfactory state of things to think that the lives of the poor were in the hands of such persons"; whether he had observed that the above-mentioned unqualified practitioner (who called himself a colonel and a barrister, as well as practising as a medical man) admitted that, under an authorisation from the qualified doctor who keeps the dispensary, he had signed certificates in that person's name; whether he could take any steps to prevent such illegalities; and whether he could obtain power, either by the appointment of Government inspectors, the issue of Government licences, or some other efficacious means, to prevent the sick poor from being attended by unqualified medical practitioners at the metropolitan dispensaries.

Sir W. Harcourt: Of course, there is no legal authority which could deal with the matters referred to by the hon. member. The proper course would be for him to call the attention of the Medical Council, which has power to act by the 21 and 22 Vic., to these cases, and ask them to put the Act in force against them.

Mr. FARRAR, in laying the case before the Council, said—It will be in your recollection that on Saturday last you directed me to summon Mr. Murdoch to appear before you to-day. There have been three subjects in respect of which blame has been imputed to him—first of all, that he had a number of dispensaries at which he employed unqualified practitioners to attend patients at his dispensaries, and also at their own houses. Another ground was (but this does not appear to have been made out) that he allowed an unqualified practitioner to sign his name to a false certificate of death. The third was that in cases in which this unqualified practitioner attended, he himself appeared at the last moment to sign the certificate of the cause of death, in order that it should appear that those cases had been attended by a qualified practitioner. With regard to the two last charges, there was an absence of evidence sufficient to support them, although it appeared that in a particular case Mr. Murdoch did attend at the last moment and sign a certificate of death. But there is no evidence of a continued practice of that kind. With regard to signing the false certificate,

he himself alleges that a Mr. Griffin, who was the unqualified practitioner who signed his name, did not sign it by his authority, but that in point of fact that signature was a forgery; and there is no evidence to support the allegation that he had given Mr. Griffin authority to affix his signature to certificates of death. Upon that ground, therefore, there is nothing upon which the Council could take action against him. There remains the third and most important ground —that of his employing unqualified practitioners at his dispensaries. The evidence in support of that is contained in the depositions taken at the coroner's inquest, coupled with his own letter to the Council. It will be necessary for the Council to come to a decision upon the question of whether, if they think the evidence makes out the case against him, his conduct has been such as is described in Section 29 of the Act to be "conduct infamous in a professional sense." That is really the point which the Council will have to determine. In the present case, Mr. Carpenter, writing from the Medical Alliance Association of June 8, asks for the removal of his name "for disgraceful conduct in the practice of his profession, as described upon oath during the proceedings at two inquests held by Sir John Humphreys, reports of which taken from the *Telegraph* are enclosed." The course I should suggest to adopt is this: that Mr. Murdoch, who, I hear, is present at this moment, should be invited to come into this room; that then we should state to him the effect of the evidence against him, and ask for any defence he has to make —in point of fact, call upon him to show cause why his name should not be erased from the Register.

The PRESIDENT informed the Council that the course which would be taken would be following the precedent of former cases—that Mr. Murdoch would be called into the room, and then the Solicitor would put such questions to him as might seem to him desirable, for the purpose of laying before the Council the evidence; to which evidence Mr. Murdoch would give such answers and make such observations as he thought fit. Any questions which in the judgment of the members of the Council it was desirable to put, should be put either through the chair or through the Solicitor. Then, as soon as the evidence is complete, strangers would be requested to withdraw, and the deliberations would continue in private upon the evidence so laid before the Council.

Professor HAUGHTON called attention to the answer of the Home Secretary in the House of Commons with regard to this case. It showed that this was a typical case of the most serious character, and that the eyes of Parliament and of the whole profession would be upon the Council. He wished to point out that they were entering upon a discussion upon the practice alleged against Mr. Murdoch, of employing unqualified practitioners to represent him in several places, and that this was a general question going far beyond the particular case before them. His vote would be given upon the general question, rather than upon the particular instance. The duty was cast upon them by the answer of the Home Secretary, and they must make this a precedent for other cases.

The PRESIDENT replied that he had reason to believe, from communications he had received from various members of the Council, that, as a body, they were quite alive to the serious aspect of the case.

Mr. MURDOCH was then called in, and, in answer to Mr. Farrar, deposed as follows:—My name is David Beatson Murdoch. I am owner of the dispensary, 149, St. Leonard's-road, also 37, Ben Jonson's-road, Stepney; of another dispensary at 135, East India-road, and another at 165, Kingsland-road. I attend the St. Leonard's-road and Ben Jonson's-road dispensaries daily. I have a qualified man at the East India-road dispensary, but not at the others. My own residence is 200, Dalston-lane. I have seen a copy of the depositions given at the inquest held at the Wellington Arms, on Martha Elizabeth Bailey Chatfield. I attended that inquest and gave the evidence set forth in the deposition. I am aware of the complaint which is made against me—that being a registered practitioner and the owner of certain so-called dispensaries, I have at all or some of the said dispensaries employed unqualified persons to see and prescribe for the sick poor, and particularly in the case of Martha Elizabeth Bailey Chatfield.

The particulars of the charge as above reported, together with the depositions, were read as follows:—

Depositions of Witnesses taken and acknowledged on behalf of our Sovereign Lady the Queen, touching the death of Martha Elizabeth Bailey Chatfield, at the house known as the "Wellington Arms," in the parish of Bromley, in the county of Middlesex, on Wednesday, June 1882, before Sir John Humphreys, Knight, one of Her Majesty's coroners for the said county, on view of the body of the person then and there lying dead.

Martha Bailey Chatfield, having been sworn upon the day and year and at the place above-mentioned, deposed as follows: I reside at 16, Joshua-street, Bromley. I am the wife of Edward James Bailey Chatfield, a boiler-maker. The deceased was my daughter. Her name was Martha Elizabeth Bailey Chatfield; her age two years. She was taken ill on Tuesday, May 23. A gentleman came to see her who attended another child of mine who was ill. He attended this one also. I had sent for him from the provident dispensary. I don't know his name. He sent the black doctor. He saw the other child was dying, and sent for Dr. Murdoch. He came, and the child died as he came in. He saw this child now lying dead, but not after. I took her to the dispensary. The black doctor saw her, and he gave me a paper to get some medicine. On Friday, June 2, I saw her throat was worse, and I took her again. The black doctor gave her some sweets, and told the surgery man to put something down her throat, which he did. At night she was worse, and I went for Dr. MacGill. He came, and said she was in a critical state, but he would do what he could for her. He came twice. She was much better, or appeared so. On the following morning he came before breakfast, in the afternoon, and again at night. On the Sunday morning he brought Dr. Skelley, and she died at 2.30 p.m. On May 23 Dr. Murdoch commenced attending this one. I had to pay 2s. 6d. for the baby that died before he would attend it. As the baby died same day, he agreed to attend this one for the same 2s. 6d. It is 1s. per week at the dispensary; 2s. 6d. if he attends at the house. Deceased did not get better nor worse that week; the beginning of next week I saw a lump coming in her throat. I took her to the dispensary; the same gentleman saw her [identifies the man]; said it it got any larger he would paint it. I think this was Thursday or Friday. I did not take her the next day, but the following day. I told him she was worse; she could not swallow. He asked me to go into another room with the child whilst the man who makes the medicines up did something to her throat with a camel-hair brush and something in a bottle. Then the doctor put the tube on the chest to sound her, gave her a few sweets to eat, and wrote a prescription. The same man who painted her throat made it up. I then went home. This was Friday. I gave her the medicine up to ten o'clock at night. I found then she could not swallow nor breathe, then called in Dr. MacGill. I believe the person attending deceased at dispensary was a qualified medical man. On Friday night came under the treatment of Dr. MacGill. He sent medicine and came again at eleven o'clock at night. He cleansed her throat, and she slept comfortably during the night. He said she was in great danger. He came at eight o'clock next morning (Saturday), and again did her throat; and again in the evening, and did her throat and ordered poultices. He came again on Sunday about ten o'clock, and again with another doctor about twelve o'clock. Did her throat again. She died 3.30 p.m. on Sunday, June 4. The first child that died was "Naomi." She was attended only by the black doctor. When she was dying he sent a doctor; he called him afterwards a hospital doctor. The hospital doctor saw her a quarter of an hour before she died. She had bad thighs. The certificate produced looks like the one I got. She was only convulsed a few moments before she died. The black doctor attended Naomi for a fortnight. He wrote a note, which my sister took to fetch Dr. Murdoch.

Sarah Mary Chatfield, duly sworn.—I live in the same house as the last witness. I am the widow of Samuel Edward Bailey Chatfield, a boiler maker. I am the grandmother of deceased. Deceased child, Martha, came under medical treatment the same day Naomi died. I believed man attending Naomi was a properly qualified doctor. The deceased Martha was under that same man a fortnight. The same day that Naomi died a fresh doctor came to see her, called hospital doctor. He prescribed for her. My daughter did not like him. She told him to send the one that had been attending deceased. He came directly, and he sent for Dr. Murdoch directly. This was Friday. [Identifies black doctor.] The second doctor was a fair young man, thin—Dr. Murdoch. Naomi only lived a few minutes after Dr. Murdoch saw her.

Sarah Elizabeth Bailey Chatfield, duly sworn.—I live in the same house as last witness. I am aunt of deceased child Martha. On the day Naomi died I took a card to the black gentleman who was attending her, to Dr. Murdoch at the provident dispensary. He returned with me. Before this, during the same day, I went there for the dark gentleman. He did not come, but sent a young man whom he said was a hospital doctor. All the instructions of doctors were carried out. When Dr. Murdoch came, deceased Naomi died whilst he was there; he was there not more than five minutes.

David Beatson Murdoch, Lic. R. Coll. Phys. Edin., Lic. Soc. Apoth. Lond., Lic. Fac. Phys. Surg. Glasg., and registered, duly sworn.—I am owner of dispensary, 149, St. Leonard's-road. I have one at 37, Ben Jonson's-road, Stepney; another at 135, East India-road; another at 165, Kingsland-road. I attend at St. Leonard's-road and Ben Jonson's-road daily; at East India-road I have a properly qualified medical man; at the others I have not. I reside at 200, Dalston-lane, Hackney. I saw Naomi on day of death (May 23), just before death; Martha same day; strumous children. She was not very ill then; I prescribed for her. I am not certain if I again saw her. I don't remember if Mr. Griffin consulted me further on her case.

Governaur Hamilton Griffin, duly sworn.—I live at 149, St. Leonard's-road (dispensary); the house is leased to me in my name. I let the first floor to Dr. Murdoch. I have no diploma in England, nor elsewhere medically. I am a barrister, and was practising in Canada and America. Some one came to the dispensary, requesting some one to attend a child in Joshua-street, about two or three weeks ago. I am assistant to Dr. Murdoch. I do not remember whether I had ever seen Naomi before the day of her death; we have so many at the dispensary, I cannot locate a particular one. We have had seventy-eight patients in one day. Two-and-sixpence per week is "out-patients visited at their house"; 1s. per week when attend dispensary. I live in the house. Dr. Murdoch rents the ground floor of me. I receive the patients in Dr. Murdoch's rooms. We have a dispenser; he performed the operation on Martha's throat by my dictation; the preparation is "tannic acid" and "glycerine." Martha came under our treatment on May 23; Dr. Murdoch diagnosed the case. I don't remember that he told me what his diagnosis was. Dr. Murdoch put up the medicine for Martha himself. I continued to treat the child Martha for a week. It was brought to the dispensary. The card

produced refers to Martha; the initials are mine. Naomi's certificate is in Dr. Murdoch's handwriting. Parker's certificate is wholly in mine, name included. I have been assistant to Dr. Murdoch six months or more. I never signed a certificate of death till May 29. May 10 commenced attending Naomi as indoor patient. I saw it at dispensary; paid 1s. May 23 is next entry; paid 2s. 6d. Nearly all the fees are received by me; we keep a young lady there to label the bottles, and to assist generally; also a dispenser. Dr. Murdoch attends 12.30 to 2 o'clock daily. He has four or five other dispensaries. The child had combination of ailments—cough, cold, ulcers. I saw it on June 2; it then suffered from tonsillitis. I examined chest. I can't say the result of examination.

Andrew MacGill, M.D., L.R.C.P., and registered, duly sworn.—I reside 123, St. Leonard's-road. I was called to Martha Chatfield last Friday night, June 2; found her suffering from difficulty of breathing, high fever, crepitation of chest, right lung. I prescribed accordingly, hot fomentations to chest, poultices. The back of throat was full of blood and spittle. She died on Sunday, June 4. I have since her death, by order of the coroner, made a post-mortem examination of her body, which I found very well nourished, rather fat, and on opening the head found brain healthy; no effusion. Chest—lungs, pneumonia both; heart healthy; liver and other organs all healthy. The windpipe was inflamed, the tonsils enlarged, and the cause of death pneumonia. Pneumonia must have been going on three or four days; I could not miss detecting it on 2nd.

Examination continued:—The depositions contain a correct report of the proceedings at the inquest.

The Solicitor then read the finding of the jury, which was as follows:—

That on June 4 in the year aforesaid, at the parish aforesaid, in the county aforesaid, the said Martha Elizabeth Bailey Chatfield, being an infant of a tender age, did suddenly die of the mortal effects of pneumonia. And the said jurors do further say her said death was caused by natural causes. And the said jurors do lastly say Mr. Murdoch is seriously to blame in allowing Colonel Griffin and others to practise in his name; and that the deceased was unsatisfactorily treated by his dispensary attendants. In witness whereof, as well the said coroner as the foreman of the said jurors, and the rest of the said jurors, have to this inquisition set their hands and seals on the day and year and at the place first above written.

I certify this to be a correct copy.

(Signed) JOHN HUMPHREYS, Coroner.

Examination continued: The name of my qualified assistant is William Anthony Hope.

Mr. FARRAR: You have heard the charge against you and the proceedings upon which it is based, as well as the demand made by Mr. Carpenter to have your name erased from the Register of the General Medical Council on the ground of "infamous conduct in a professional respect." The Council would be very glad to hear from you any statement of facts or reasons why they should not put Section 29 of the Medical Act in operation against you.

Mr. MURDOCH: I have only to express my sorrow, gentlemen, for what has happened, and to assure you that you will have no cause to complain of my future conduct. As regards the certificate of death, I can declare I never authorised anybody to sign my name. I think I stated [that fact in the letter I forwarded to the Council. I never authorised Mr. Griffin, nor anybody else, to sign any certificate for me. I was not aware that the child was dead. I had no knowledge until the coroner's officer informed me of it. I am very sorry that I have ever employed unqualified assistants. I have already closed one dispensary, and I intend to dismiss my unqualified assistants, and never to employ them any more. I can only express my sorrow for what has occurred.

The PRESIDENT: Are there any questions which you wish to put to the Solicitor or to myself, or any observation you desire to make?

Mr. MURDOCH: I wish to say that a great deal that Mr. Griffin said was quite untrue.

The PRESIDENT: As I understand, you have no addition to make to what you have stated in your letter? A.—No, I have stated everything fully in that letter.

Mr. FARRAR: I wish to call your attention to this: the present action is not taken with reference to the signing of the certificate at all, because the Council gathers from your letter that you deny that you gave Mr. Griffin any authority to sign your name, and they understand you now to repeat that denial? A.—Yes.

Q.—The present proceeding is instituted against you on the ground that you have opened these dispensaries, and kept them at work, employing therein unqualified practitioners. The Council desire to know whether you have issued handbills, one of them announcing "the re-opening of the dispensary at 149, St. Leonard's-road, Poplar, conducted by physicians and surgeons"? A.—I knew they were issued; I did not order them myself.

Q.—Who did issue them? A.—Mr. Griffin.

Q.—Another states that "this dispensary is conducted for the public benefit by D. B. Murdoch, assisted by other medical attendants." Who were they? A.—I meant the other qualified gentleman, Mr. Hope, who lives a short distance from the St. Leonard's-road.

Q.—Then that handbill was issued by you? A.—Yes. I think that was in answer to a libel which had been circulated, saying there was no qualified man on the premises at all.

Q.—You observe that the words are "assisted by other medical assistants"—in the plural. Did you mean that word to refer to Mr. Hope? A.—Mr. Hope was friendly with Mr. Griffin then, although they have had some private quarrel since; but Mr. Griffin might have fetched him at any moment.

Q.—Whom did you mean the word "attendants" in the plural to refer to? A.—To Mr. Griffin and Mr. Hope.

Q.—Mr. Griffin was not a qualified medical attendant? A.—He said he had a diploma from Canada when I engaged him; I forget which university in Canada. I never asked him to show me that diploma, or for any evidence that he possessed it, until after the inquest. I never suspected anything against him.

Q.—Some members of the Council, observing that in your letter you say that you could produce favourable evidence to character from both professional men and patients in your district, wish to know whether you have any evidence of that kind. A.—No, but I could do so. I believe I am respected by the other medical men in the neighbourhood as well as by my patients.

Professor HAUGHTON said if it would not take long to procure it, he thought the evidence referred to by Mr. Murdoch ought to be placed before the Council.

The PRESIDENT: Can you produce that evidence?

Mr. MURDOCH: I could in time, but I am not prepared at this moment—I have not yet obtained it.

Questioned by Dr. QUAIN through the Solicitor, Mr. MURDOCH said he admitted that his dispensaries were not strictly within the meaning of the term "provident dispensary." He charged 2s. 6d. a week for attendance at the patient's home, and 1s. a week at the dispensary, including medicines. The assistant at the dispensary saw the patients and wrote out prescriptions, which were dispensed by a dispenser. In the case of the child Chatfield, Mr. Griffin must have given the prescription. He had never called witness's attention to the case at all. At each dispensary there would be about twenty cases attended daily, and ten at patients' homes. It was quite untrue, as stated by Mr. Griffin, that he had an average of seventy-eight patients per day at the dispensary. He kept no record of the cases except that the prescriptions were filed. There was only a separate dispenser at the St. Leonard's-road dispensary; the assistants at the other places made up their own mixtures. Personally he attended an hour daily to see patients at each dispensary, and he attended all the outdoor cases. The duty of the assistant was to reserve the worst cases for him, and he trusted to the assistants to perform this duty, which if they neglected there was no check. The dispenser had no qualification, but he had a knowledge of drugs from having been a dentist—his name being on the Dentists' Register. (Laughter.) Mr. Hope first became his assistant last November. The whole area covered by his dispensaries would be about a mile and a half long, excluding that in Kingsland-road, which had only been established a few weeks. He confessed to being the author of the handbill which stated that the dispensary in St. Leonard's-road was attended for the public benefit by D. B. Murdoch assisted by other medical attendants, and that the author of a handbill affirming the contrary was "a liar." The phrase "hospital doctor," referred to in the depositions, was a mistake by the patient for "hospital student." The gentleman in question was a student of St. Bartholomew's. Had purchased the goodwill of the dispensary at 149, St. Leonard's-road from Mr. Griffin for £120, of which he had already paid £50. He believed Mr. Griffin had shortly before purchased it from a Dr. Shackleton. He was continuing that dispensary under an agreement with the landlord, with the view of carrying on the business there in future. He had never had anything to do with these dispensaries before the last few months, having been engaged in private practice. He believed the dispensary in St. Leonard's-road had not been very long in existence.

Mr. FARRAR then read the depositions in another case, which was made the subject of a charge against Mr. Murdoch, touching the death of Henry Arthur Parker. They were as follows:—

Depositions of Witnesses taken and acknowledged on behalf of our Sovereign Lady the Queen, touching the death of Henry Arthur Parker, at the house known as the "Forester's Arms," in the parish of Bromley, in the county of Middlesex, on Wednesday, June 7, 1882, before Sir John Humphreys, Knight, one of Her Majesty's coroners for the said county, on view of the body of the person then and there lying dead.

Elizabeth Parker, having been sworn, deposed as follows: I reside at 52, Railway-street, Bromley. I am the wife of John Parker, a stoker. The deceased was my son; his name was Henry Arthur Parker, his age eight months. He has been ailing. On Wednesday, May 24, I took him to the dispensary in St. Leonard's-road, and asked for the doctor. A dark gentleman saw me; a fair gentleman gave me some medicine for the child. I took him again on Friday, May 26, and a fair gentleman saw him—I think, Dr. Murdoch. On Sunday, May 28, as he did not seem so well, I sent for the doctor about 5 o'clock p.m. The dark gentleman came, and the child died at 6 p.m. I have had nine children; one is still living. This one's life is not insured; no one benefits by his death.

Andrew MacGill, M.D., and registered, duly sworn.—I live at 123, St. Leonard's-road. By order of the coroner I have made a post-mortem examination of the body of Henry Arthur Parker, and found it thin and partly decomposed. There were no marks of violence. On opening the head, found brain healthy; chest, lungs both inflamed, the right most effusion into cavity; heart healthy; liver and other organs healthy; body nourished. Dr. Murdoch present at examination. The cause of death, pleuritis and pneumonia.

Governaur Hamilton Griffin, duly sworn:—Saw deceased Wednesday, May 24; diagnosed case as consumption. On Friday, May 26, Dr. Murdoch saw him. Certificate produced.

David Beatson Murdoch, Lic. R. Coll. Phys. Edin., Lic. Soc. Apoth. Lond., Lic. Fac. Phys. Surg. Glasg., and registered, duly sworn:—I own the Dispensary, at 149, St. Leonard's-road. The certificate produced is not my writing. I did not tell Mr. Griffin to give death certificates—certainly not in this instance.

The finding of the jury ran thus:—

That on May 28, in the year aforesaid, at the parish aforesaid, in the county aforesaid, the said Henry Arthur Parker, being an infant of a tender age, was found dying, and did suddenly die, of the mortal effects of pneumonia. And the said jurors do further say his said death was caused by natural causes. And the said jurors do further say Mr. Murdoch is seriously to blame in allowing Colonel Griffin and other unqualified men to practise in his name, and that the deceased was unsatisfactorily treated by the dispensary attendant.

Questioned as to whether these depositions formed a correct representation of what took place at the inquest, the witness replied in the affirmative, and asserted that the certificate produced was not in his handwriting, and that he had never authorised Mr. Griffin to give a death certificate. The "dark gentleman" referred to was Mr. Griffin, and the "fair gentleman" who gave some medicine for the child was himself (Mr. Murdoch). He had never given his assistants blank forms of certificates of death or signed blank certificates.

Strangers were then requested to withdraw, and the Council proceeded to consider the case in private.

The following is a copy of the letter from Mr. Murdoch to the Council, referred to by the President, and contains his plea for mercy at their hands:—

200, Dalston-lane, E., June 24, 1882.

Gentlemen,—Having been informed that the General Council of Medical Education is about to investigate the circumstances of the unfortunate cases upon which inquests were recently held in Poplar, I humbly appeal to you to read my own account of my conduct ere you form any resolution.

Before I proceed to describe the facts, I fully admit my fault in not having inquired thoroughly into the antecedents of the man who has brought upon me so much trouble—I mean Mr. J. H. Griffin. I was aware that he had assisted another medical man, and I learned that he was well spoken of by all classes of patients, many of whom stated that he cured their complaints, that *he was clever* (to use a popular expression), and they praised his kind attention and gentlemanly demeanour. I myself was misled into the belief that he was a man in whom I could repose confidence. He informed me that he had studied medicine and law in Canada, and that he possessed a Canadian diploma. I was not aware that he was—that is to say, if rumour speaks truly—an adventurer and a scoundrel of the deepest dye.

As regards myself, I will only say that I have practised for eight years in the neighbourhood of Poplar, and could produce, if necessary, both professional and lay evidence in proof of the manner in which I have conducted myself during that period.

The facts concerning the cases in question are as follows:—The child, Martha Bailey Chatfield, was brought to my surgery about a fortnight previous to her death. She manifested no symptoms beyond a certain lassitude. The skin was cool; there was no perceptible increase in the pulse or number of respirations. I do not know what symptoms she developed subsequently. Mr. Griffin appears to have treated the case upon his own responsibility for ten or twelve days, without calling my attention to the patient's condition. The parents became dissatisfied as they perceived no progress towards recovery, and summoned another medical man. The child died, and hence the inquest, the result of which is well known. The case of the other child, Naomi Chatfield, who had died a fortnight previously, was naturally mentioned. It is not for me to say whether the mere allusion to another death in the same family tended to prejudice in some degree the minds of the jury. However, in the case of Naomi Chatfield I am fully prepared to accept all responsibility. I was told that the patient had not been attended in my surgery. I was summoned to her house, when I found her spasmodically convulsed, her eyelids twitched, and her limbs and body moved slowly until she succumbed. My attention was drawn to the large sloughing sores in the groin and on the thigh (in one open sore I could have buried two or three fingers, and the labium on the right side was wholly destroyed). I thought that there was quite sufficient to account for the exhausted and emaciated condition of the child under such circumstances. I ought to mention that the mother of the children has suffered from strongly marked symptoms, such as skin eruptions, frequent miscarriages, falling off of hair, etc.

child, and I feel that I should have done wrong in withholding a certificate

The child Parker, upon whom the other inquest was held, was brought to my surgery two or three times. I saw it once or twice. The mother stated that it had been feeble from birth, and had *wasted* rapidly during the past two months. It seemed quite prostrated. Dyspnœa and other lung symptoms were urgent. It was so low that I remarked to the assistant that it could not possibly live long. I am given to understand that the child died on the following Sunday morning (I had seen it on the Thursday), or a few days after my attendance; *but I was not aware of its death until I was informed by the coroner's officer.*

I have been much blamed because a certificate of death with my name subscribed was handed to the parents of the deceased by Mr. Griffin. I told the coroner's officer, and also Dr. MacGill, who made the post-mortem examination, that I knew nothing about the child's death, and that I had not written the certificate, which has now proved to be nothing more or less than *a forgery.*

I swore before the Coroner, I have since sworn in the presence of a commissioner of oaths, and I have confirmed my oath before a magistrate, that *I have never authorised anyone to sign a certificate of death or to use my name for such a purpose.*

I acknowledge my error in employing unqualified assistants, although I have never expected them to do more than treat common cases, such as coughs and colds, simple diarrhœa, etc., which many people would treat themselves without consulting a medical man. I know that it is no excuse for me to say that it is a constant custom in the profession to employ unqualified men, and that I err with the multitude of my professional brethren.

It was said that I had *numerous* dispensaries; even the private house where I reside, but do *not* practise, was denominated a dispensary. Far be it from me to endeavour to implicate others just because I have been made a scapegoat, but instances are numerous in which dispensaries are not so well provided with legally qualified attendants as my own. I see now the evil of such a system, and I assure you, gentlemen, I have learned a sad lesson.

I fully admit my great indiscretion in not having investigated more fully the antecedents and character of the man Mr. Griffin. I have no desire to attack him in any underhand way. Others as well as I have been deceived by his falsehoods. Respectable people complain of his having extorted money from them by means of treachery. Patients have informed me, SINCE the inquests, how he undertook to cure their ailments for certain sums of money. He had only been with me a few weeks, and I knew nothing of such disgraceful transactions. No mention of them was made in the books, for the simple reason that he must have known that I would never have countenanced such methods of obtaining money. I am undoubtedly guilty of great indiscretion; but, whatever my offence, my punishment has been greater still. My local reputation has been injured; my name has been commented upon unfavourably in the press; I am blamed by some for having employed a scoundrel, by others for allowing an unqualified man to sign my name to a death certificate, as though I could prevent a man of that description from committing forgery during my absence. I never knew his real character till after the inquest. I have been robbed, and my name and reputation have been damaged badly—I have been brought almost to the brink of ruin. However, gentlemen, I still look for blame, not sympathy or pity.

In conclusion, I ask your pardon. I promise to exercise more discretion in future, and I trust that you will have no reason to complain of my professional conduct. I shall not employ another unqualified assistant, except for subordinate duties, unless he be under the direct surveillance of a legally qualified man; and, further, I will not undertake more duties than I can fully and conscientiously perform.

To the General Council of Medical Education. I am gentlemen, yours most obediently, D. B. MURDOCH.

The Council having deliberated for two hours and three-quarters, strangers were readmitted.

The PRESIDENT, addressing Mr. Murdoch, said: The General Council has deliberated with the greatest care upon your case. It has heard read all the depositions and inquisitions which were presented to it. They were read in your presence; and we heard all that you had to say on the subject and all that you wished to communicate to us, and this is the decision at which the Council has arrived:—That, acting under Section 29 of the Medical Act, the General Medical Council, after due inquiry, judges that you have been guilty of infamous conduct in a professional respect; but the Council do not now direct the Registrar to erase your name from the Register. They have come to that conclusion after the fullest consideration, being compelled to form a distinct conclusion on the point submitted to them under Clause 29 of the Act; and they have not desired or intended to remove your name from the Register, believing that you have undertaken to discontinue the various acts which have been complained of in the allegations presented to them.

Mr. MURDOCH: I am much obliged to you, gentlemen, for the lenient view that you have taken of my case. I can assure you that I will endeavour in future to abide by the strict rules of the Council.

The Council then adjourned at a late hour.

EIGHTH DAY—WEDNESDAY, JULY 5.

A long discussion having taken place as to the correctness of the Minutes of yesterday's proceedings,

Sir WILLIAM GULL gave notice of motion "That for

putting into action Section 29 of the Medical Act (which empowers the Council to erase names from the Register), three-fourths of the votes of the whole Council must be in the affirmative." He thought if there were a larger number of doubting members of the Council than one-third, the accused person ought to have the benefit of the doubt.

The communication received from the South Australian branch of the British Medical Association as to a medical practitioner registered on September 22, 1877, with the qualification "Lic. Apoth. Hall, Dubl., 1877," was then taken into consideration.

Mr. MACNAMARA said that a long time had elapsed since the documents connected with this case were sent to Australia, and the Council should comply with the request of the members of the South Australian Branch of the British Medical Association, who requested the immediate and best attention of the Council to the apparently careless and informal manner in which the Apothecaries' Hall of Ireland had granted a diploma or licence to practise to one of its licentiates. It was shown pretty conclusively that the attendance on the curriculum adopted by the Council had not been enforced. On the question of anatomy also, the Australian gentlemen said, "By a privilege [touching which no explanation has been given by him] Mr. Dixon was the only student in the anatomy class. He attended the instruction of the lecturer, Dr. Auchinleck, who gave an hour three times a week." That meant that he was a pupil of Dr. Auchinleck, who was a distinguished grinding doctor, who coached him up for the examination of the Apothecaries' Hall. Under the regulations of the Apothecaries' Hall, Mr. Dixon should have spent four years in professional study, and undergone two examinations, the first being for the certificate of apprentice, and the second being for the licence to practise. There was no semblance of a statement by Mr. Dixon that he complied in any respect with those regulations. It was not for him (Mr. Macnamara) to give the answer of the Apothecaries' Hall. Their representative was present, and would tell the Council why those irregularities, if irregularities they were, were permitted. He would postpone proposing any resolution, because it was evident that any resolution must be framed entirely with reference to the answer of the Apothecaries' Hall, which most probably would be of such a character that the high reputation of the Apothecaries' Hall of Ireland would not suffer in the present case.

Mr. COLLINS said he should endeavour shortly to show that the Apothecaries' Hall of Ireland had power under their Act of Parliament to depart from their curriculum of education in similar cases, and at the same time to show that they endeavoured to act with justice to individuals without omitting what was due to the honour of the profession. There were two serious accusations in these communications made against the Apothecaries' Hall of Ireland—one of carelessness, and the other of informality. As to the first, he (Mr. Collins), as being one of the four persons who examined the papers of Mr. Dixon, could assure the Council that there was not the slightest ground for the accusation of carelessness. They considered that, as Mr. Dixon had commenced his professional studies three years before the Medical Council came into existence, the responsibility of acceding to or rejecting his memorial rested upon them. Mr. Dixon stated in his memorial that having lived for twenty years in the warm climate of Australia, his health and that of his wife was greatly injured by his residence during the previous winter in Scotland, and that under no circumstances could he remain a second winter in the North of Europe. He was threatened with signs of pulmonary disease, and stated that he would be obliged to leave before the winter commenced. As to the charge of informality, the Apothecaries' Hall had departed both from its curriculum of 1855 and from the educational rules laid down by the Medical Council. Mr. Dixon did not pass the preliminary examination or serve any apprenticeship to a licensed apothecary, and did not go through the entire course of education laid down by the Apothecaries' Hall; but the Corporation treated his case as a special case. About 1840 the Apothecaries' Society were, by Her Majesty's then Government in Ireland, called upon to admit to their examination a number of gentlemen practising in the North of Ireland, whom their licentiates called upon them to prosecute for illegally acting as apothecaries without having been licensed. In obedience to the call of the licentiates, the Apothecaries' Society required those gentlemen, who were largely composed of retired naval surgeons, to cease violating the law. They memorialised the Government, and their petition was strongly supported by influential men—the late Mr. O'Connell and others,—who requested the Government to point out some way in which they could be set free from the dilemma in which they were placed. The Government sent an official communication to the Hall, accompanied with an opinion from Baron Pigott, that, according to Section 22 and 23 of the Act of Incorporation of 1791, a power was given to them to examine candidates simply and solely upon their knowledge and competency, and to license them to act as apothecaries if they showed sufficient knowledge and competency. Since that time the Apothecaries' Society had acted upon that power when they considered that to do so would be for the benefit of any individual concurrently with the benefit of the public. Virtually that section gave them power to grant licences *sine curriculo*. While endeavouring in all cases to conform to the regulations of the Medical Council, the Society of Apothecaries thought they would be doing justice to an individual consistently with their duty to the public by admitting Mr. Dixon to examination, and after a satisfactory examination, giving him a licence to practise. Under these circumstances he would move—"That, having considered the communication from certain members of the South Australian Branch of the British Medical Association with regard to the case of Mr. Hartley Dixon, and the reply of the Apothecaries' Hall of Ireland thereto, and having heard the further statement on the subject from the representative of the Apothecaries' Hall of Ireland, the Council is of opinion that it is unnecessary to take further steps in the matter."

Mr. MACNAMARA, in seconding the resolution, thought it right to inform the Council that no mercenary motives could have influenced the Apothecaries' Society in granting this qualification—the fee did not cover the expenses of the examination.

The motion was then put and carried unanimously.

A petition was then read from Mr. George Stratten Symmons, asking to be restored to the Register, his name having been erased six years ago on his conviction and sentence to two years' imprisonment.

Dr. CHAMBERS, in moving that Mr. Symmons' name be restored, was interrupted by—

Dr. PITMAN, who suggested that the Council had no power under the Act to restore the name. It could only restore such names as had been removed on account of the person registered neglecting to furnish evidence as to his residence. The only way in which a person could be restored was to obtain from a medical authority another qualification, which he might then present to the Medical Council for registration.

Mr. BEADFORD thought Dr. Pitman was in error as to the Council having no power to restore names to the Register, because power was given to do so by the Act of 1874.

Mr. TURNER pointed out that Mr. Symmons had originally two qualifications only: membership of the College of Surgeons of England, and licence of the Society of Apothecaries, London. It appeared that he had not registered the licence of the Society of Apothecaries, and the Council would probably have power to register that qualification now.

After some discussion,

Dr. PITMAN moved—"That the opinion of counsel be taken as to whether the Council has power to restore to the Medical Register the name of a person erased under Section 29 of the Medical Act."

Dr. CHAMBERS seconded the motion, and it was put to the Council and carried.

A certificate that William Story was convicted at Bedford upon an indictment charging him with setting fire to a certain house in his possession, with intent to injure and defraud, and sentenced to five years' penal servitude, was then read, together with a letter from the Royal College of Surgeons of England, stating that, in the opinion of the Council, the offence of which William Story had been convicted was of such a nature as to render him unfit to remain a Fellow and a Member of the College.

Mr. SIMON suggested that the consideration of this case should be deferred until after the opinion of counsel, ordered upon the last case, should be obtained. The question was whether, when he should come out of prison, he should be prevented for the rest of his life from practising.

Dr. PITMAN pointed out that Mr. Story's name would remain on the Register, because he had another qualification than that of the Royal College of Surgeons of England. The Council were only asked to remove his qualification derived from the Royal College of Surgeons, and not to strike his name altogether off the Register.

Mr. MACNAMARA thought this was a case which should be submitted to the legal adviser of the Council. He did not see that the Council had any power to remove a portion of his qualification.

Professor HAUGHTON moved—"That the name of William Story be removed from the Medical Register."

Mr. MARSHALL seconded the motion.

Mr. SIMON said he would have had no hesitation in voting upon the motion if it was clear that the Council had the power at the end of the five years, when the man was released, of enabling him to resume his profession. Where a man committed a crime, and the law gave what it deemed a proportionate punishment for the offence, he was not sure that the Council were entitled, in addition to that, to take from that man for the rest of his life his means of livelihood. The Council ought to take him off the Register during the time he was expiating his crime in prison; but he (Mr. Simon) thought the Council had no right to inflict the punishment of preventing the convicted man from resuming his calling without inquiring into all the circumstances of the case.

The motion was then put and carried by eight votes to five.

A letter from the Registrar of the Divorce Court was read, in which he certified that in a case of "Stenning *v.* Stenning and Hoar," the jury found that the co-respondent, William Hoar, had committed adultery with the respondent, Mrs. Stenning. A report of the case from the *Globe* of June 26, 1882, was also read.

Mr. SIMON said this was a different case from the preceding cases. This was not a conviction for felony or misdemeanour, but a judgment in a civil procedure for damages, and he would suggest that the consideration of the case be postponed.

Dr. QUAIN thought the Council could only consider this as a case of "infamous conduct in a professional respect." Such a case must be gone through in a regular form.

The PRESIDENT said, after communication with the Solicitor on the subject, he entirely agreed with Mr. Simon that the Council had better defer the consideration of the matter until to-morrow.

Professor HAUGHTON then moved that the consideration of the case of William Hoar be referred back to the Branch Council for England for investigation.

Mr. MACNAMARA seconded the motion.

Mr. SIMON said as a member of the Branch Council he was not aware of the Branch Council having directed the matter to be laid before the Council; and after some discussion the motion was put and carried.

The following communications were then read:—

(*a*) *Extract from the Dental Minutes of the Executive Committee's Meeting of July 28, 1881.*

Read:—The following communication from the British Dental Association, together with the "opinion" and "explanatory resolution" therein referred to:—

"40, Leicester-square, July 16, 1881.

"Dear Sir,—I am requested by the Business Committee of the British Dental Association to forward to you the accompanying opinion, and to beg that you will place it before the Medical Council, together with the enclosed explanatory resolution.(a)

"I am, dear sir, yours very truly,

"JAMES SMITH TURNER, Hon. Sec. B.D.A.

"The Registrar of the General Medical Council."

Resolved:—"That the Committee acknowledge the receipt of the foregoing communication, and inform Mr. J. S. Turner that, in the opinion of the Committee, the steps requisite to be taken to try the correctness of the course taken by the General Council, under the advice laid before it, rest with the Dental Association, and not, as suggested in the opinion now forwarded, by the removal of a name which, in the judgment of the Council, is registered in conformity with law."

(*b*) *Extract from the Dental Minutes of the Executive Committee's Meeting of November 11, 1881.*

Read:—The following communication from the British Dental Association in regard to the resolution contained in the foregoing extract (*a*):—

"British Dental Association (Incorporated June, 1880),

"40, Leicester-square, W.C., October 31, 1881.

"Sir,—I am directed to acknowledge the receipt of your communication, dated August 3, 1881, and in reply thereto to state, for the information of the Medical Council, that the Representative Board of the British Dental Association is advised that the question lately raised respecting the correction of the Dentists' Register cannot be settled by action taken under Section 35 of the Dentists Act; furthermore, that, inasmuch as the Council, in full session, on February 3, 1881, declared that sufficient evidence of error in registration had not been adduced to justify the erasure of the names under consideration, it be asked that the memorial—with the appended legal opinions, constituting strong additional evidence—addressed to the Council, and in part considered by the Executive Committee on July 28, be laid before the Council at its next session.

"On behalf of the Representative Board of the British Dental Association.

"I remain yours obediently,

"JAMES SMITH TURNER, Hon. Sec. B.D.A.

"W. J. C. Miller, Esq., B.A.,

"Registrar of the General Medical Council."

Resolved:—"That the several documents and legal opinions in possession of the Council having reference to registration under the Dentists Act be placed in the hands of Mr. Farrar, the Solicitor to the General Council, for the purpose of his further advising the Committee thereon."

Extract from the Dental Minutes of the Executive Committee's Meeting of January 6, 1882.

A communication was made by the Solicitor of the Medical Council in regard to the foregoing clause (*b*) of the Dental Minutes of the Executive Committee's meeting of November 11, 1881.

Dr. PITMAN moved that these communications be entered on the Minutes.

Dr. QUAIN, in seconding the motion, gave a short outline of the proceedings of the Council with regard to this dental business. Soon after the publication of the Dental Register, Mr. Smith Turner, the Secretary of the British Dental Reform Association, sent a list of some 400 persons who had registered themselves as dentists in *bonâ fide* practice of dentistry "with pharmacy," etc., but whose names were not to be found in the Chemists and Druggists' Register, he contending that such persons were liable to have their names taken off the Register. In addition to that a letter was sent to these 400 persons, threatening that unless they withdrew within fourteen days their names from the Register, the Dental Reform Association would bring the matter before the Medical Council. Then letters were received by the Council from some of the persons so registered, expressing astonishment and complaining of the conduct of the Association. These communications from both sides were then placed by the Dental Committee of the Council in the hands of the late Mr. Ouvry, the Solicitor to the Council, for his investigation and report thereon, and he with great care ascertained the facts with regard to the various cases, which were then laid before the Council, who requested Mr. Ouvry to advise as to what steps should be taken. Mr. Ouvry obtained opinions from the Solicitor-General and Mr. Vaughan Hawkins on the "facts," and in accordance with those opinions the Council resolved that there being no evidence to show that the persons in question were not at the time of their registration *bonâ fide* engaged in the practice of dentistry, the Council was not prepared to order their names to be taken off the Dental Register. A letter was then received by the Executive Committee, from the British Dental Association, requesting the Committee to lay before the Council an opinion of the late Sir John Holker, Mr. R. S. Wright, and Mr. Fitzgerald, together with an explanatory resolution. The Executive Committee upon this informed the Association that, in the opinion of the Committee, the steps requisite to be taken to try the correctness of the course taken by the General Medical Council rested with the Dental Association, and not, as suggested in the opinion they forwarded, by the removal of a name which, in the judgment of the Council, was registered in conformity with law. That not being considered satisfactory, a further letter was received from the Dental Association, asking that the question should be submitted to the Council, and the matter was accordingly open for discussion by the Council.

Mr. FARRAR (Solicitor to the Council) said upon the question as to whether the Council should erase from the Dentists' Register the names of those persons who had been entered upon the Register as dentists with

(a) The explanatory resolution is as follows:—"That, in strict conformity with the practice uniformly followed of placing before the Medical Council any facts or opinions bearing upon the administration of the Dentists Act of which the Association may have become possessed, the joint opinion of Sir John Holker, Mr. R. S. Wright, and Mr. G. A. R. Fitzgerald, upon the meaning of Section 6, Sub-section 2), be at once forwarded to the Medical Council; that the Association venture to hope the Council will cause to be placed on their Minutes the accompanying joint opinion, together with the high legal opinion of Mr. now Mr. Justice Bowen, read before the Council in July, 1880, with the opinion, also then read, of Mr. G. A. R. Fitzgerald; and that the Association earnestly hope, in the presence of a great preponderance of high legal opinion in favor of a correction of the Dentists' Register, the Council will restore to the Register the recently erased descriptive terms 'with medicine,' 'pharmacy,' etc.; and at its convenience proceed to the correction of the Register by the erasure of names registered in the midst of doubt, or take such other steps as may lead to the production of a Register legally correct."

legal dental qualifications, and who had registered in addition that they practised dentistry "with pharmacy," which latter qualification was not sanctioned by their entry upon the Pharmaceutical or Medical Registers, counsel had differed very much. Sir John Holker, Mr. R. S. Wright, and Mr. Fitzgerald had held that persons who were not entered on the Pharmaceutical or Medical Registers, but were entered as practising dentistry "with pharmacy," ought to be erased from the Register. That was contrary to the opinion which the Council had itself obtained from Sir Farrer Herschell, Mr. Vaughan Hawkins, and Mr. Muir Mackenzie. Those three gentlemen, however, had had an opportunity of re-considering their original opinions by the light of the opinion of Sir John Holker, and had come to the conclusion that any person was entitled to be registered who could show that he was *bonâ fide* engaged in the practice of dentistry at the time of the passing of the Act, whatever his other occupations may have been, and wherever they may have been carried on. They further stated that, in their opinion, the words "with pharmacy" should not have been at any time placed on the Register. Each applicant for registration under sub-section C of Section 6 should have applied on the ground that at the time of the passing of the Act he was *bonâ fide* engaged in the practice of dentistry, without adding anything else; and the only question for the consideration of the Council was whether he was so engaged. The feeling of counsel was that the Legislature intended to give to all who were *bonâ fide* practising dentistry the same rights that they had before the passing of the Act; and that if, therefore, any course of action were adopted which would limit or reduce the numbers of those who *bonâ fide* practised dentistry before the Act came into operation, that would be a result which was not intended by the Legislature. In point of fact, if the rights of those practising previously to the passing of the Act had been intended to have been interfered with, the Act in all probability would not have been passed. The question before the Council was what was the meaning of the Act; and he (Mr. Farrar) should advise the Council to act upon the well-considered and re-considered opinion of the Solicitor-General and those associated with him, rather than upon the opinion of Sir John Holker, whose opinion had been given upon a case submitted by the Dental Association.

The motion was then put and carried.

Dr. Storrar, in moving "That the opinions of Mr. Bowen, Mr. Fitzgerald, the Solicitor-General, and Sir John Holker in regard to the registration of dentists under the Dentists Act, 1878, be entered in the General Council's Minutes," said that the Council, having taken upon itself the duty of administering the Dentists Act, there being no direct representative of the dentists' body upon the Council, it behoved them to consider well the responsibility upon their shoulders. If it was clear that the views set forth by the Solicitor were sound, he should be one to cordially fall in with those views, however much he might feel that the dentists had been hardly treated. He desired, however, that the members of the Council should have an opportunity of exercising their own judgment upon the matter. The Council had had the opinions of Sir Farrer Herschell, Mr. Vaughan Hawkins, and Mr. Muir Mackenzie, but where were the other opinions? Mr. Fitzgerald, as the draughtsman of the Bill on behalf of the dentists, ought to know what the leading dentists wanted. Then an opinion had been given by Mr. Justice Bowen, one of the most distinguished men of his time, but that name had never been mentioned by Mr. Farrar. He (Dr. Storrar) wanted to know what the opinion of Mr. Justice Bowen was. Then Sir Farrer Herschell's opinion had been taken. He was a great advocate, but how far he was a sound lawyer he (Dr. Storrar) was incapable of judging. Besides those opinions there was the opinion of Sir John Holker, who had been characterised as one of the most profound lawyers of his time, and he thought an opportunity should be given to the Council of fairly considering that opinion. He had great respect for Mr. Farrar, but he felt that the Council was bound to do justice to the dentists; and, to enable them to arrive at a proper decision, he asked that the opinions of Mr. Bowen, Mr. Fitzgerald, the Solicitor-General, and Sir John Holker should be placed upon the Minutes.

Dr. Pyle seconded the motion.

Mr. Farrar said the reason he had not mentioned Mr. Justice Bowen's opinion was that it was an opinion taken before the Register was formed, and with a view to the formation of the Register. It was not an opinion taken upon the present question.

Dr. Storrar said that the opinions were given at different times, but the object with which Mr. Justice Bowen was consulted was as to how the Register was to be formed. The object with which the other gentlemen had been consulted was whether the Register was to be corrected. Did not common sense tell them that the object was precisely the same? What was the object but either to put those upon the Register that ought to be upon the Register, or to take off the names from the Register of the men that had no business to be there?

Sir William Gull thought it made all the difference whether a man was in possession or whether he was out of possession.

Mr. Turner, in supporting Dr. Storrar's motion, said he thought it was a most reasonable thing that the opinion of Mr. Justice Bowen should be laid before the Council, because that had been obtained by the Council or by the Executive Committee.

Mr. Macnamara said he should like to ask the legal adviser of the Council whether every one of these eminent counsel had not the Dentists Act before him, and whether it was not on the construction of that Act that the opinions were taken. There was no reason why the opinion which had been taken by the Council should not be given to it. The Council had paid for it and were entitled to see it. He would support Dr. Storrar's motion.

Mr. Farrar reminded the Council that these opinions were confidential documents, and it was as a matter of worldly wisdom very unwise to publish counsel's opinions. Therefore, so far as regarded the question of printing and publishing these opinions, he thought the Council would do wisely in pausing before they took any such action as that.

Professor Haughton: If Mr. Farrar is right, might I ask him why the opinion of Sir Farrer Herschell, Mr. Vaughan Hawkins, and Mr. Muir Mackenzie is printed, and in my hands now? What is to prevent me sending a copy of this out to the world to-morrow morning?

Mr. Farrar said if he were asked to advise the Council about printing opinions, he should advise them certainly not to do so; but it was a matter that rested entirely with themselves.

Dr. Quain said, if the matter of opinions was talked about, the Council could get as many as they liked. He himself had taken the trouble to get an opinion from Mr. Lumley Smith for his guidance.

Dr. Storrar: Was this opinion got on behalf of the Council?

Dr. Quain: Was the opinion of the Dental Association got on behalf of the Council? He (Dr. Quain) was at liberty to get an opinion and submit it to the Council just as much as the Dental Association was. Mr. Lumley Smith was of opinion that a person who combined the practice of dentistry with some other occupation was not thereby disqualified for registration. He thought the wording of Section 11 and of the schedule included all persons engaged in the practice of dentistry, and that the intention of Section 6, Subsection C, was to make it clear that persons might be registered as dentists although they were already registered under other Medical Acts. Dr. Storrar had said that Mr. Fitzgerald was well acquainted with what the leading dentists wanted. What they wanted was not to do justice to another class of persons, namely, the poorer people who were earning their living by doing more than practising dentistry alone. Four or five hundred persons had been registered as practising dentistry in connexion with some other business—some of them were surgeons, others were barbers, but how long was it since surgeons were barbers? If a man declared he was a *bonâ fide* dentist, and extracted five or six hundred teeth in a year, and could give other evidence of his fitness to be on the Register, what difference did it make if he were also a barber? Sir John Holker, in his opinion, said: "It will be for the Council to judge, as a matter of fact, whether the person's real business was dentistry. They would not be precluded from so finding merely by the circumstance that the person occasionally or incidentally or at some other place carried on another business; but a person whose real business was that of a blacksmith, shoemaker, veterinary, or barber would not be registrable." That opinion perfectly justified everything the Council had

done. Dr. Storrar had said that there was no representative of the dentists on the Medical Council, but that was an observation which opened up a question as to the propriety of the Dentists Act altogether. The dentists ought never to have allowed such an Act to pass. He hoped that the motion would be dropped.

After some remarks from Dr. AQUILLA SMITH,

Sir WILLIAM GULL moved as an amendment—"That the opinion of counsel for the guidance of this Council for the registration of dentists be considered confidential, and be not entered in the Council's Minutes." He did not defend what had been done, but he felt that to go back and open up the question again would land the Council probably in a long litigation.

Dr. LYONS, in seconding the amendment, said, in other bodies with which he was connected it was the practice to carefully preserve any legal opinions which were obtained, but never to publish them. He quite agreed with Mr. Farrar, that it was very undesirable to publish counsel's opinions, because it would furnish opponents with the means of attack. What had been done could not be recalled, and the Council must put upon the Register those persons who had a legal right to be there, no matter what other occupation they followed.

Dr. STORRAR, in reply, said that with some few exceptions since the foundation of the Council all the opinions of counsel had been published. He was asked why he attached such importance to the opinions of Sir John Holker and Mr. Fitzgerald. He did so for this reason, that those opinions had been taken by a body of dentists holding systematic meetings as members of a corporation outside this body. They thought that they had suffered great injury through the conduct of the Council, and therefore endeavoured to recall the Council to a sense of what was just. Dr. Quain had suggested that the dentists ought to have got an independent Act of their own, but the Medical Council, when the Dentists Bill was sent down to them, made it a condition that the legislation for the dentists should be incorporated with the Medical Act.

Dr. QUAIN: No, no; the Council never said anything of the kind.

Dr. STORRAR: The Council had this Bill sent down to them, and they made certain alterations. Then the Bill was sent back to the Duke of Richmond, and the Government, for certain reasons of their own, did not adopt all the recommendations of the Council. While the Dentists Act existed it was the duty of the Council to administer it. It was the duty of the Council to be just, and also to prove to the Dentists' Association and to the numerous bodies of respectable dentists practising throughout the country that they had not received injustice at the hands of the Council. As the first step towards that he moved that the opinions that had been obtained by the Dental Association should be recorded in the Minutes of the Council.

After some discussion as to whether opinions had previously been entered upon the Minutes, the amendment was put to the Council, and carried by fifteen votes against six.

Mr. TURNER then moved—"That, adopting the recommendation of the Executive Committee, it rests with the British Dental Association to take the steps, if any, which may be requisite to try the correctness of the course taken by the General Council."

Mr. SIMON seconded the motion.

Dr. LYONS, on rising to a point of order, doubted whether it was within the powers of the Council to suggest to another body that they should proceed to litigation.

After some discussion the resolution was modified by Mr. Turner as follows—"That the Council are not prepared to take steps, as suggested by the Dental Association, to erase names from the Register which have been placed thereon by the Council under legal advice."

The motion as modified was then put to the Council and carried, and

The Council adjourned.

NINTH DAY—THURSDAY, JULY 6.

On the motion of Mr. TEALE, seconded by Professor HAUGHTON, it was resolved—"That the report of the Council in committee on the visitors' conclusions be received and entered in the Minutes."

It was then moved by Mr. TEALE, seconded by Professor HAUGHTON, and agreed to—"That the Council adopt the following clauses of the report:—1. 'That it is desirable that every primary or first part examination shall include dissections by every candidate.' 2. 'That in view of the great and increasing range of chemical and physiological science, it is desirable, in regard to those subjects, that examining bodies should comply with the Council's Recommendation 40, and that candidates should be apprised beforehand of the limits of the examination in these subjects.' 3. 'That it is desirable that at the final examinations candidates should be practically examined in anatomy in its relation to practical medicine and practical surgery.' 4. 'That the application of bandages and splints should be required in every surgical examination.' 5. 'That it is desirable that in every final examination for a surgical diploma, candidates should, as far as practicable, be required to perform operations on the dead subject, in accordance with the intention of the Council's Recommendation 44.' 6. 'That the practical examinations in chemistry should be conducted in a laboratory.' 7. 'That it is desirable that the recognition of microscopical specimens, normal and morbid, should form a part of the examinations for medical and surgical diplomas.'"

After some discussion it was moved by Mr. TEALE, seconded by Mr. MACNAMARA, and carried—"That the Council direct the attention of the authorities to the following resolutions of the Council in committee:—8. 'That in oral examinations, notwithstanding any general rule which limits examinations, for instance, to ten minutes or a quarter of an hour, a margin of additional time for satisfying the examiners in all doubtful cases should be provided.' 9. 'That, considering how important it is to all medical practitioners to possess a competent knowledge of hygiene and preventive medicine, the Committee takes note of the suggestion of Dr. Gairdner and Mr. Stokes, that these subjects ought to form a more independent part than they do of the examinations of all corporations.'"

Dr. BANKS then moved—"That the subject of 'mental disease' be added to those of 'hygiene' and 'preventive medicine' in the foregoing reference to the medical authorities." That was a subject which had been unanimously recommended by the visitors—the subjects of hygiene and preventive medicine being only recommended by Dr. Gairdner and Mr. Stokes. It was not only important that the general practitioner should be well informed in medicine, surgery, and midwifery, but that he should know something about mental disease. An intimation should be given to the medical bodies that it should form an important part of the examination. He believed the resolution with regard to hygiene and preventive medicine was not required with regard to the University of Dublin and the young Royal University of Ireland, but this recommendation was required with regard to all examining bodies.

Professor HAUGHTON seconded the motion.

Mr. SIMON would insist that the elucidation of mental disease should form a part of medical education, and that in mental disease, as well as in renal and gastric diseases, questions should be asked, but he would shrink from saying that mental disease should form the subject of a distinct or independent examination. He would take the same course with regard to hygiene and preventive medicine.

Mr. MACNAMARA supported Dr. Banks' resolution, and directed Mr. Simon's attention to the fact that in the report of the Council in committee there was no question about any such things as renal and gastric diseases being included. Those subjects had been brought under the cognisance of the various examining bodies, but there was an absence at every examination of the subject of mental disease. The visitors were sent to spy out the nakedness of the land, and they came back and said that the land was very naked indeed.

Dr. LYONS said he had often been present at the examinations of the Queen's College of Physicians, Ireland, when examinations on the subject of mental disease had been conducted. Many years ago also the Royal College of Physicians frequently examined on subjects connected with hygiene and what was known as preventive medicine. He would support the motion.

Mr. TEALE said that all the three visitors were of opinion that these were serious subjects to be considered. They went very carefully into the question, having in view the great importance of the various subjects in medical education, and they were all agreed as to the necessity that there

would be in any reconsideration of the curriculum for the settlement of the point as to what position they should have both in education and examination. His two colleagues felt so strongly about the subject of hygiene that they wished to make a special recommendation which should have immediate force. He could not go with them in that, because he felt that the work now required of students would not admit of the addition of another subject, which, unless very strictly defined, would become so wide as the subject of hygiene.

The motion was then put and carried.

Mr. TEALE then moved—"That the Executive Committee transmit a copy of the Visitors' Report, the remarks thereon, and the resolutions of the Council, to such teachers in the medical schools of the United Kingdom as they may select, inviting their opinions on the subject of medical education referred to in the Report." About twelve years ago the Council invited the opinions of the leading teachers in the kingdom, and a report was made on the answers obtained from them by a Committee of the Council. Having gone as far as the Council had in having a report by visitors, remarks by the bodies, and the special opinion of the Council expressed in these resolutions, it appeared to him that the Council would complete the body of information bearing on the present state of medical education if it got the opinion of the leading teachers of the kingdom on the various points in question.

Sir WILLIAM GULL seconded the motion.

Dr. QUAIN wished to know what Mr. Teale proposed to do with the opinions when he got them. Did he propose to re-open the discussion on the whole subject? That would be a monstrous waste of time, and he would oppose the motion if he thought that was likely to happen.

Dr. HERON WATSON thought it was quite natural that Mr. Teale and his colleagues should attach immense importance to this Report, because they knew the enormous amount of labour and trouble they had gone through to lay it before the Council, but he (Dr. Watson) did not think the Report was such a great document that it should be printed and circulated and be a permanent work for all time. He would certainly propose that the Report be not so transmitted.

Dr. HUMPHRY said the objectionable part of the motion was that which invited the opinions of the teachers in the medical schools. If such opinions were sent back it would involve the Council taking some action upon them, which perhaps it was not ready to do. The better plan would be to simply send the Report to the schools, and leave them to take any action, or not, as they thought fit.

Professor HAUGHTON said a great number of the medical schools existed as a sort of commercial speculation for preparing students for examination, and to ask the teachers of those schools to judge between the Council and the corporations would be very likely to offend the corporations. It would be putting the schools, many of which were insignificant in character, in a far better position than they deserved. These teachers had clever brains and sharp pens, and he did not want to be made the subject of attack by clever penmen. It would be impossible for the Council not to notice the answers.

Mr. TEALE said he had no objection to modify the resolution by striking out the words "inviting their opinions on the subject of medical education referred to in the Report."

The resolution as thus modified was then put and carried.

Dr. PITMAN then moved—"That it would be desirable that, in any amendment of the Medical Acts, provision be made as regards persons whose names may be struck off the Medical Register, that every such person shall, *ipso facto*, forfeit any medical title which he may at the time hold from any of the medical authorities; subject, however, to the further provision that any authority, if it sees fit, may afterwards renew to such person the forfeited title on condition of its not being again registrable under the Medical Acts, except with the consent of the General Medical Council." The reason he moved this was that it had been suggested by the Executive Committee that cases had arisen where the names of persons who held qualifications from some of the corporations had been erased from the Register, but which names the corporations had no power to strike off their lists, so that persons who had been guilty of any offence and had been struck off the Register were legally entitled to hold the qualifications of some one or two bodies, as in the case which came before the Council yesterday. That seemed to be an inconvenient condition of things. The Executive Committee had passed a resolution dealing with the matter, and it appeared to him to be desirable that the Council should have an opportunity of knowing and confirming that which the Executive Committee had done. If the wording of the motion were considered, it would be apparent that it went little farther than the law at present stood, because, although, when a person was struck off the Register, it was within the power of some bodies to erase his name from their lists, other bodies not having the power to do so, still the Council could only recommend that those bodies should not grant their qualifications again to the same person. It was proposed by the motion that the power to grant their qualifications again should be taken from them, unless the Medical Council consented that they should grant the qualifications, subject, however, to the further provision that any authority, if it saw fit, might afterwards renew to such persons the forfeited title, on condition of its not being registrable under the Medical Act, except with the consent of the Medical Council; so that the Medical Council would, in fact, hold the power in its hands of not allowing the medical authorities to re-issue a qualification which had been forfeited to any person whose name had been erased from the Medical Register under Clause 29 of the Medical Act. There were many medical authorities which had not the power at present of erasing the name of any person from their list of persons holding qualifications, but there were none who did not wish to possess it, and therefore it was proposed that, under any amended Medical Act, all authorities should not only have the power of striking off the names of persons proceeded against under Section 29, but those persons should *ipso facto* forfeit all qualifications.

Mr. SIMON seconded the resolution.

Mr. TURNER thought the motion presented many difficulties, all of which would have to be considered. Although many bodies undoubtedly possessed the power of striking the names of persons off their own lists, the Scottish universities considered that they had no power to degrade a graduate—the rule was "once a graduate, always a graduate." By proposing that the universities might, if they thought fit, renew to such person a forfeited title with the consent of the Medical Council, he was not quite sure whether the Council were not opening up a very difficult legal question. The Council should have a little more light thrown upon the subject by some one competent to advise them, before they agreed to the motion. According to the existing regulations of the Scottish universities a man had to undergo examination in order to obtain a degree: if he were degraded, would he be obliged to undergo a second examination before the forfeited title was renewed? (No, no) He should like to know what the lawyers had to say on the matter. Again, the motion would throw enormous difficulties in the way of any person who wished to get his name again on the Register, because the motion would make it necessary, for a person who had been removed from the Register and degraded, to go through a double ordeal—the ordeal of going to the body and asking the body to renew its degree to him, and the ordeal of coming to the Council and asking it to re-register him.

Dr. STORRAR said he fully approved of the object of Dr. Pitman's motion, but he recognised all the difficulties that Professor Turner had suggested. As regarded the University of London, they had no idea, any more than the other universities, that they could deprive a man of his degree. The proposal of the motion was a proposal to hand over the power of degradation to a body quite external to the University, and that he thought the University would demur to. Was it not enough, if a man misconducted himself, to deprive him of all the privileges of registration? The Archbishop of Canterbury still had the power of conferring a degree in medicine—was it proposed to give the Archbishop's graduates the power of practising under their degrees? At present they were not admitted to the Register at all, because the power of registering those degrees was taken away by the Medical Act, although the power of conferring the degree continued. If a man was guilty of such unworthy conduct as to render it expedient that his name should be removed from the Register, he was deprived of all the privileges of the Medical Act, and he did not know that it would be worth while to interfere with the universities or any other bodies beyond that. It was a sufficient punishment if a man held a degree or qualification not to allow him to

practise under it. He should like to think over the matter before voting for the motion.

Professor HAUGHTON agreed with Dr. Storrar in sympathising with the object of the motion, but he thought it was impossible to carry out the proposition. There were things which no Act of Parliament could undo. An Act of Parliament might be passed to unbaptise him, but he could not be unbaptised, and he thought that all the power of an Act of Parliament could not enable a body to take away a degree when once it had been conferred. The University of Dublin had once spent a large sum of money in trying to take their degree from an unworthy person, but the final decision was that, having conferred it upon him, they could not take it away—the only thing they could do was to advertise that their graduate had since become unworthy to hold their degree.

Dr. HALDANE thought under the circumstances it would be well that Dr. Pitman's motion should be delayed. There was no urgency in the matter, as there was no immediate prospect of a Medical Bill being brought before Parliament. There would be very considerable opposition to the proposal, and it was desirable that legal advice should be taken, and the consideration of the subject deferred until the next meeting of the Council.

Dr. BANKS believed that the removal of the name from the Register would answer all purposes. It was desirable that the corporations should have such a power as the Bar exercised when it disbarred a man. If the crime that the man committed was of a grave nature, there was no probability of his being re-admitted to the Register.

Mr. MACNAMARA said the College of Surgeons of England had the power of removing its qualifications, and he would suggest that those bodies who had not a similar power should themselves seek it. The Apothecaries' Society of England had recently by an Act of Parliament obtained that power, and he thought it desirable that all bodies should possess it, but at the same time the College of Surgeons in Ireland would look with a very jealous eye on any proposal to hand over to another body the power of removing from its lists its own licentiates. They felt that they were as jealous of the honour of their profession as the General Medical Council could possibly be, and they would feel it keenly if any other body than their own should have the power of exercising such a privilege.

Dr. LYONS thought it was unlikely that any Act of Parliament would be passed containing any such sweeping power as the motion proposed. The general principle of legislation in reference to acts of criminality was to attach a special penalty to a particular act, but in this indirect way to seek to impose a series of cumulative penalties on a man for a particular instance of criminality was the last thing in the world that would be likely to pass unchallenged through either House. A man should not be punished further than the particular circumstances and necessities of the case seemed at the moment to demand. The object of Dr. Pitman, that the effect of striking a man off the Register should be to inflict such continuing and permanent punishment as to deter all persons from acts of criminality in the future, was no doubt a good object—(hear, hear)—but to legislate in that way would be like going back to the days of the old Star Chamber legislation. There was not the remotest chance in the present days of any such sweeping legislation being accepted by Parliament. The wiser course would be to withdraw the motion. He hoped it would not be pressed to a division, because it would be unsatisfactory to have it on record that such a matter had been the subject of a division.

Professor HUMPHRY also hoped Dr. Pitman would withdraw the motion. The Council was asking to have its powers extended over the registers of all the licensing bodies in the kingdom. It was asking not simply that the man's name should be expunged from the Register, but that any title which had been conferred upon him by any of the authorities should be expunged from their registers also. He (Dr. Humphry) did not think that the several universities of the United Kingdom would assent to their graduates being in this way altogether under the authority of the Medical Council. True, a power would be given to them to restore the name, but still that was not a dignified and proper position for the authorities, whose licences were recognised by the Council, to be placed in. Further, it was quite uncertain what kind of legislation was contemplated. If the legislation went upon the lines of the Report of the Royal Commission, the several bodies would be removed still further from the Medical Council, and their titles would be removed by Act of Parliament further from the influence of the Medical Council. Those titles would not be registrable in future. A person would be admitted to the Register, not because he had passed the examination of any authority, or because he had obtained a licence or degree from any authority, but because he had passed an examination under the direction of the Medical Council. His registrable title would be the resultant of that examination, and not the resultant of the examination of either of the several bodies. He thought it would be wiser to postpone the motion.

Mr. SIMON said that the language of the motion was not perhaps the best that might be chosen for the purpose it was intended to effect, but he thought the intention of Dr. Pitman had been a good deal misunderstood. The real object was that there should be a power given to the universities acting through their governing bodies to degrade—that where a man was struck off the Register for infamous conduct every medical body to which he belonged should be able to strike him off its rolls. (Hear, hear.) However, as the proposition was evidently not agreeable to the representatives of the universities present, he thought it would be desirable not to press the motion at the present time. The immediate object of the motion had no doubt been attained by the discussion which had taken place.

Dr. QUAIN, in referring to Lamson's case, said that statements came before the English Branch Council, before he was an actual criminal, of his misconduct at Bournemouth in practising under titles which he did not possess. The English Branch Council were furnished with official documents to prove that he had done so. They thought it right to refer the matter to the authorities who had given him the qualifications which he did possess, viz., the authorities in Edinburgh; but the authorities in Edinburgh, on being communicated with, said that they thought it was the duty of the Medical Council itself to interfere. No doubt the feeling which moved them was that they had no power to deprive this man of his qualifications. If the Council had taken his name off the Register he would still have retained his qualification from the Edinburgh corporation, and would still have been Dr. Lamson. The man Leverson, whose name had been struck off the Register for misconduct, still retained the qualification of the Glasgow University. Cases like those, no doubt, had actuated Dr. Pitman in moving the resolution. His was a most sweeping way of effecting the object aimed at, but there was another way, and that was to propose that in any amendment of the Medical Act power should be given to the authorities themselves, enabling them to strike the name of any unworthy persons from their lists.

Dr. PITMAN, in reply, thought the purpose of the motion had been scarcely understood. The Executive Committee had passed a similar resolution, and he felt that as the rights and privileges of both the universities and corporations were concerned, it was right and proper to bring the motion before the Council. As regarded the objection made by Mr. Turner, that persons guilty of misconduct would have difficulties placed in the way of getting their names replaced on the Register, he thought they ought to have difficulties placed in their way. He contended that it should not be an easy thing for a man, whose name had been struck off the Register under Section 29, to get it put on again. Why should not all the bodies have the power of striking such persons off their registers? He could not conceive any university or corporation not wishing to have the power if they had not such a power. (Hear, hear.) As regards what Dr. Humphry had said, he might have spared himself the trouble of making a speech, because when the matter was before the Executive Committee he was as much in favour of the resolution as he was now opposed to it. (Laughter.) As, however, the general feeling seemed to be that he (Dr. Pitman) should withdraw the motion, he would ask the permission of the Council to do so.

The motion was accordingly withdrawn.

The next business on the programme was a notice of motion by Dr. Aquilla Smith—"To bring before the Council the correspondence (*re* Prosser) between the King and Queen's College of Physicians in Ireland and the Registrar of the Branch Council of England."

Dr. AQUILLA SMITH said he was instructed to bring this

correspondence before the Council by a resolution of the King and Queen's College of Physicians, and it would be necessary briefly to give the history of the case. The first letter was from the Registrar of the King and Queen's College of Physicians in Ireland, Dr. Finny, to the Registrar of the Medical Council:—"8th April, 1881.—Dear Sir,—By the direction of the President and Fellows of the King and Queen's College of Physicians in Ireland, I beg to lay before the General Medical Council the following brief statement of what appears to the College to be the most infamous conduct in a professional respect on the part of Richard Albert Shipman Prosser, M.R.C.S. Eng., L.S.A. Lond. At an inquest held on the body of Ellen Allsly at the Coroner's Court, Moor-street, Birmingham, on June 10, 1880, Mr. R. A. S. Prosser swore to having made a post-mortem examination of the body, and to having examined the kidneys and all the abdominal viscera; he also swore that the kidneys were healthy, and he gave his opinion that death was caused by the negligence of the medical practitioner who had attended her the day but one before her death. On this evidence Mr. Edward Hyacinth O'Leary, L.K.Q.C.P.I., was committed for manslaughter by the coroner. A subsequent post-mortem examination having been conducted by James Maclachlan, M.D., and Robert Saundby, M.D., it was shown that the kidneys had not been disturbed from their place, and that the examination of the other viscera had been most incomplete. When this fact was disclosed before the stipendiary magistrate's court on June 23, the prisoner was discharged, and the grand jury threw out the bill at the Warwick Assizes. I am further directed to convey to the General Medical Council the opinion of this College, that, should the facts be found on inquiry to be as stated above, the conduct of Mr. Prosser, socially and professionally, deserves to be termed 'infamous,' and to request the Council forthwith to make due inquiry into the above-stated case, with a view to exercising their powers conferred by Section 29, Medical Act, 1858, as to erasing from the Register the name of Mr. Prosser." Owing to the offence having been committed in England, the College of Physicians were excluded from taking any steps in the matter, and they therefore had no other course than to refer the case to the Branch Council for England. The Branch Council, however, acknowledged the receipt of the letter, and resolved "that the case did not seem to be one in which they could usefully take action." On that resolution coming to the knowledge of the College, they addressed another letter to the Registrar of the General Medical Council, dated May 24, 1881, as follows:—"Sir,—I am directed by the President and Fellows of this College to request that you will bring under the *direct* notice of the General Medical Council the following communication:—In July, 1880, a licentiate of this College, Mr. Edward H. O'Leary, was committed for manslaughter on the evidence tendered to a coroner's jury by a Mr. Albert Shipman Prosser, M.R.C.S. Eng., but was discharged subsequently by the magistrate, and the grand jury threw out the Bill at the Warwick Assizes, as Mr. Prosser's evidence was proved to have been inconsistent with facts. The College, in its desire to vindicate the rights and privileges of its licentiates, considered that Mr. Prosser's conduct was such as should be brought under the notice of the General Medical Council, and accordingly on April 8, 1881, I wrote you a letter giving you a brief statement of the facts, and stating that in the opinion of the College Mr. Prosser's conduct deserved to be termed 'infamous' in a professional respect, and asking the General Medical Council in Section 29 of the Medical Act, 1858, to make 'due inquiry' into the case, with the object of their exercising the powers conferred upon them by the said section. Instead, however, of this letter being brought under the notice of the Council, it appears it was dealt with by the Branch Council for England. I am now directed to ask you again to bring both my letter of April 8 and this letter before the General Medical Council for their information, and that they may take action thereupon.—I have the honour to be, Sir, your obedient servant, J. Magee Finny." On receipt of that letter the Executive Committee resolved—"That Dr. Finny be informed that the course taken by the Branch Council for England, to which, in conformity with the standing orders, the case was referred, was in accordance with the advice of the Solicitor of the Council, but that under the circumstances of the case the whole subject will be further investigated." There was therefore a direct promise of investigation, but on the matter coming before the Branch Council in February, 1882, they passed a resolution—"That there being a conflict of evidence, and no consequent action against Mr. Prosser for perjury, the Branch Council do not propose to send on Dr. Finny's letter to the General Medical Council." Under these circumstances the College of Physicians thought they had reason to complain of the indisposition on the part of the Branch Council for England to help them in a case in which they could take no further steps without the aid of the Branch Council for England. It did not appear that the Branch Council had taken the slightest action in the matter. The College of Physicians were anxious not to let the matter drop, and their only way to further investigate the case was through the co-operation of the Branch Council. It was a most important question in the opinion of the College of Physicians. One of their licentiates had been placed in the humiliating position of having been committed to take his trial on a charge of manslaughter, and although he was ultimately acquitted, the College thought that the conduct of the man upon whose evidence their licentiate was committed for trial should be thoroughly investigated. The College complained that they had not been assisted in their investigations by the Branch Council for England. Had the Branch Council taken any steps to obtain any further information than was contained in Dr. Finny's letters? That question should be answered. The College of Physicians had a stronger claim to have a full consideration of this case than any other body would have under similar circumstances, because the College of Physicians had done more than any other body to maintain by its individual action the dignity and honour of the profession as regarded its licentiates and members. He would move—"That the Branch Council for England be requested to make, forthwith, further inquiry as to the conduct of Mr. Richard Albert Shipman Prosser, M.R.C.S. Eng. and L.S.A. London, in the case brought under the notice of the General Medical Council by the King and Queen's College of Physicians in Ireland, in two letters respectively dated April 8, 1881, and May 24, 1881 (vol. xviii., pages 267 and 213), and that the Branch Council submit to the Medical Council the result of the inquiry."

Dr. Banks seconded the motion. If Mr. Prosser was guilty of the charge brought against him of not merely committing perjury, but of endeavouring to ruin a professional brother, no conduct deserved more than his conduct did the application to it of the strong term "infamous." He (Dr. Banks) thought that if it was possible the case should be thoroughly investigated.

Sir William Gull said what had been done by the Branch Council had been done with the greatest *bona fides* in the world. The Branch Council had carefully considered whether it could obtain further evidence, and whether it could take any further action, and the result was that the Branch Council came to the conclusion that it could not usefully take further action in the matter. Dr. Aquilla Smith had said that the Branch Council had not done their duty, and had accused the Council of being indisposed to assist the College of Physicians in making further investigations into the matter; but that was not the case. They had performed their duty with fairness and integrity, and he must protest against any imputation being cast on the honour and integrity of the Branch Council.

Mr. Simon thought Dr. Aquilla Smith had hardly done justice to the Branch Council for England, or had fully recognised the difficulties of the case. What inquiry could the Branch Council make that they had not made? If it was evident to those who had the facts before them in Ireland that the man had been bearing false testimony, he could have been proceeded against there while the facts were fresh.

Dr. Lyons said that from happening to know Mr. O'Leary and his family he was in a position to testify to his thorough respectability and to the antecedent improbability of his conduct being such as had been imputed to him. His statements were so clear that he (Dr. Lyons) felt the case was one in which some public action should be taken, and he therefore made strong representations to the Government and to the Local Government Board, and an inquiry was held. He was not in a position to say what the nature or result of the inquiry was, but it would be quite possible to obtain the report made on that inquiry. When the representative of the King and Queen's College of Physicians in Ireland asked for a reconsideration of a case which the College

thought had not been sufficiently investigated, and which had not been before the Council as a council, it would be harsh if some kind of action were not taken on the matter. As regarded the supposed criticism on the action of the Branch Council, they appeared to have done all that was possible except one thing, which was, to bring the matter under the consideration of the Council. He would cordially support Dr. Smith's motion.

After some further discussion,

Dr. AQUILLA SMITH explained that he did not intend his motion to be regarded as a vote of censure on the action of the Branch Council; and

The resolution was then put and carried.

The following report by the Committee on Preliminary Examinations was then read, and directed to be entered on the Minutes:—

REPORT BY THE COMMITTEE ON PRELIMINARY EXAMINATIONS.

Members of the Committee.—Dr. Storrar (Chairman), Dr. Fergus, Professor Turner, Dr. Humphry, Mr. Macnamara, Professor Haughton, Mr. Teale, Mr. Marshall.

The Committee appointed (on June 28th, 1882) to consider and report to the Council on the list of bodies whose examinations in general education are at present recognised by the Council, present this *ad interim* report.

The Committee recommends that the examinations of the Intermediate Education Board of Ireland—junior grade, middle grade, and senior grade—be placed on the list of examinations recognised by the Council, provided the certificates contain all the subjects required by the Council.

The Committee draws the special attention of the Council to Recommendation 5, viz.: "It is desirable that the examinations in general education should be left to the universities, and to such other bodies engaged in general education and examination as may from time to time be approved by this Council," and suggests that a minute to that effect should be sent to each of the medical and surgical corporations which still continue to conduct preliminary examinations in Arts, viz., the Apothecaries' Society of London, the Royal Colleges of Physicians and Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the Apothecaries' Hall of Ireland, the Royal College of Surgeons in Ireland.

The Committee proposes to postpone the completion of its Report till the next session of the Council. In the meantime it requests the Council to approve the following resolution:—

"That the Registrar be instructed to send a circular to each of the bodies contained in List 4, viz., Indian, colonial, and foreign universities and colleges, down to and including 73, asking for information on the following points with respect to their examinations recognised by the Council:—(1) Percentage of highest marks; (2) percentage of pass marks; (3) number of candidates at examination referred to; (4) copies of the examination papers set."

JOHN STORRAR, Chairman.

July 5, 1882.

The Council then adjourned.

THE RELATIONS OF ASTHMA AND MUCOUS POLYPI OF THE NOSE.—Dr. Joal terminates a paper in the *Archives Générales* for May with the following conclusions:—1. Mucous nasal polypi sometimes give rise to dyspnœa of an asthmatic nature. 2. This symptomatic asthma is principally observed in arthritic subjects. 3. It is most frequently produced by a reflex action consequent upon the irritation of the nasal mucous membrane. 4. The point of departure of this action may be the sensitive filaments of the pneumogastric which line the pharyngeal or bronchial mucous membranes. 5. The asthma may be developed by the fact of catarrhal and emphysematous lesions attributable to the nasal polypi. 6. The asthmatic symptoms are either amended or disappear after the removal of the polypi. 7. The nervous disturbance induced by the polypi consists sometimes of spasmodic sneezing coming on in paroxysms.

NEED OF NEGRO DOCTORS IN THE UNITED STATES.—In the *Philadelphia Med. Reporter* for June 10 is the report of a meeting of leading practitioners of that city, presided over by Prof. S. D. Gross. It originated with Dr. Lindsley, of Nashville, Tennessee, who, when lately officer of health of that city, had found hundreds of coloured people suffering for want of medical care. This lamentable state of things existed generally throughout the South, because white physicians could not attend the blacks out of charity to the extent they used to do when amply recompensed by the owners of their then slaves. He now appealed for aid to the 70,000 physicians of America, and to the benevolent public of the North. Much generosity has been exhibited by the religious bodies of the North for the benefit of the poorer Slave States, and among the charitable institutions that have been founded are two or three small medical schools. Dr. Lindsley's object is to concentrate these at a great missionary centre like Nashville into a large, efficient college, from whence negro doctors may be eventually supplied, not only for this immediate end, but as missionaries for Africa. The meeting viewed the project very favourably.

ORIGINAL COMMUNICATIONS.

QUERIES IN MEDICAL ETHICS.

ON CERTIFICATES AND THE FEES FOR THEM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you kindly give insertion to the accompanying "Queries in Medical Ethics"? They are a continuation of those that have already appeared in the *Medical Gazette* and in the *Medical Times and Gazette*. They were read last week at the Medico-Chirurgical Society of Aberdeen, and received the approval of the members present.

I am, &c.,

WILLIAM FRASER, A.M., M.R.C.S. Eng.

31, Union-terrace, Aberdeen, May 10, 1882.

These few Queries and their Answers, on a subject that deeply affects medical men who are in practice, I have endeavoured to put into a shape as consistent as I could with justice to both the public and the profession.

After you have heard them read, they can, if it be your pleasure, be gone over again one by one, and discussed, and, if possible, brought into accordance with what we believe to be the feelings and the interest of the profession on the subject.

Q. 1.—Are medical practitioners in justice bound to give gratuitous returns of the "cause of death" of their patients to the public registrars appointed under the relative Act of Parliament?

A.—Yes; in virtue of *the protection, and the exclusive licence to practise*, which it bestows on all duly qualified medical men, the State is entitled to demand this information, and all the more specially because, alike with that given for the registration of births and marriages, which is also compulsory, it has a most essential bearing upon the good government and the welfare of the community.

Q. 2.—Under what circumstances, if any, may a medical man demand a fee for a certificate of the cause of death of a patient or other person?

A.—When special information beyond that included in the statutory registrar's certificate is required, he is entitled to such a fee as is customary or fair in the circumstances. And even when the registrar's certificate is the one that is wanted by the patient's friends, as in the case of benefit and friendly societies, he can withhold his return during the seven days allowed by the Act, unless he receive from the parties interested a fee, which should be not less than that which the law allows to the registrar for giving to them little more than a copy of the medical attendant's certificate.

Q. 3.—Are medical practitioners in justice bound gratuitously to give vaccination certificates in regard to the children they vaccinate?

A.—On the principle indicated in the first query, I think they are; but they are quite entitled, if they choose, to be paid for the performance of the operation itself; and the fact of the parents being legally responsible for the return of the certificate to the registrar, affords a pretty good guarantee for the payment of their fee.

Q. 4.—Is a medical man in justice bound to give information of the zymotic diseases affecting his patients, when this is required by local or municipal authorities?

A.—If the law be public, absolute, and penal, of course he must submit to it; but if it be not imperative, or legally and penally compulsory, and if in any case the interests and feelings of a patient or his friends are much opposed to such a return, and the public or other interests would be unaffected by its not being given, he may honourably take upon himself the responsibility of withholding it.

Q. 5.—Is a medical practitioner entitled to be paid for granting the numerous certificates required by the national school boards, in reference to the health and capabilities of pupil teachers; the illnesses of children, and their ability to attend school; the risk of infection, and the period of its duration in certain cases, etc.?

A.—When a certificate is required in connexion with his attendance on a case or on a family, he will probably

not look for a special fee. If applied to by a party who has no professional claim on him, and who is in circumstances to warrant the charge, he will be justly entitled to take a fee. Parochial and dispensary medical officers are bound to consider these certificates as part of their duties to the beneficiaries of the institutions. And in the generality of cases, where the applicants are poor, though not paupers, and the illnesses unimportant, I think, on the ground indicated in the first query, that a medical man's duty, when he is appealed to, without being put to personal, or what might be called professional, trouble, is to give such a certificate as may be required, without charge; but so frequent and troublesome are these demands coming to be upon medical men, and in their nature so unavoidable, being apparently indispensable to the proper working of the Education Act, that it ought to be within the power of school boards, if indeed it be not so already, to appoint, where the necessity exists, some qualified medical person, to whom the poorer classes would be entitled to apply for the certificates required by the board.

Q. 6.—What are the duty and the claims of medical men with regard to the many certificates and documents connected with the drawing of pensions; applications and qualifications for situations; state of health and ability for special duties; claims on the ground of the state of health on charitable institutions or funds, etc., which they are frequently asked to give?

A.—When their attestations or signatures are required in connexion with the public service, medical men, when intrusted with the function, are, like justices of the peace and clergymen, bound, as good and loyal subjects, to give them when applied for. As good and humane members of society, too, they ought not, in the promotion of a kind and charitable object, to refuse the gift of a testimonial or certificate, even though of a medical character, if it does not involve the outlay of much professional skill, trouble, or responsibility. When, however, special professional knowledge and the exhaustive examination of a case, involving subsequent responsibility, are required for the preparation of a document, the medical man is justly entitled to remuneration. This claim specially holds good with regard to an important class of certificates—those of insanity—often required, as they are, where important interests are at stake; where the certifier is made to suffer through angry and revengeful feelings set in action; and where he even runs the risk, as the legally responsible party in the transaction, of having an action for damages brought against him.

Q. 7.—Are medical men entitled to payment, and to what extent, for giving certificates (or filling up schedules) as to the health and condition of applicants for life assurance?

A.—Yes; they have a just and undisputed claim; and the insurance companies now recognise *their liability*, most of them paying a fee of one guinea, many of them more, and a few less. The mercantile nature of the transaction, and the fact of its main and indispensable element being the knowledge which is contributed by the medical attendant, would alone entitle him to remuneration, independently of the confidential, responsible, and perhaps tediously and laboriously acquired character of the information communicated.

Q. 8.—Is it just or honourable for medical men to give to other practitioners, whether regular or irregular, or to druggists or others, testimonials or certificates in regard to special or secret medicinal preparations or modes of treatment?

A.—Without saying that it is absolutely dishonourable to give such testimonials, there can be no doubt that they ought to be given only in exceptional circumstances, and with great discrimination. A fee (or bribe) in such cases would be alike disgraceful to both giver and receiver, and, being a proof or a presumption of dishonesty, would augur but ill of the value or the success of the transaction. A chemist or analyst would, of course, be entitled to *his* fee for work performed, and summed up by him in the form of an analysis or certificate, but *that* should be merely a statement of facts, without opinions, whether laudatory or otherwise. The foisting of worthless or undeserving articles or procedures upon the public is an act of dishonesty; and professional men, especially those of high character and standing, whose names and influence chiefly would serve for such an object, should be on their guard against being entrapped into giving their names so as to be used for purposes of mercenary advertisement in the interest of those whose object is to make capital out of them.

Q. 9.—What certificates are medical students entitled to receive from their teachers?

A.—They are entitled to receive certificates of the classes and of the subjects which they have attended, indicating the number and regularity of their attendances, and in general the proficiency made, and the qualities displayed, by them in connexion with the subjects taught. They are also entitled to receive, from an authorised source, certificates of the honourable distinctions they may have achieved in the form of scholarships, medals, prizes, or other professional incidents which might be of advantage to them in their future career.

Q. 10.—On what principles are the comparative value and the significance of certificates of professional qualifications to be judged of when brought into competitive comparison with one another?

A.—The university or educational stamp conferred upon a student, as indicated by his certificates or otherwise, ought to form, and generally *does* constitute, a main factor in the status taken by him in the battle of life, and it will give him an advantage over competitors not so well equipped. Other considerations, certificates, and eulogistic testimonials, will often, however, have their influence, and may, in certain circumstances, and on quite justifiable grounds, outweigh even superior ones of a purely professional class.

NOTE ON TWO CASES OF ABDOMINAL SECTION.

By LAWSON TAIT, F.R.C.S.

In the paper in my last series of abdominal sections (110), which appeared in your columns of March 26, 1881, one case (No. 11) is recorded as an exploratory incision for what was supposed to be cancer of the liver. In this I was mistaken, as will be shown by the following letter from Dr. Coventon, of Knighton, who was kind enough to send her to me:—

"June 25, 1882.

"You will be very much surprised to learn that our patient, Mrs. E., is still alive, and not only alive but well. The wound healed without any trouble, but the fluid (ascitic) reappeared almost before the cicatrix had thoroughly formed. I let her go on as long as she could, and then removed the fluid. The opening remained patent for some time, and then closed. Since then there has been no occasion for interference. About six months afterwards (May, 1881) she astonished me by calling at my house, and she has for the last twelve months suffered no further inconvenience, but has been able to follow her usual household duties and do her own work. She still looks sallow and cachectic, but is otherwise strong and well. I have deferred writing, because I could hardly believe the improvement could be more than of a temporary nature."

This letter is of extreme interest, as it shows, amongst other things, that I was mistaken in regarding the disease as cancerous. But it shed a great light on the advantage of my new plan of exploring every abdomen instead of tapping it. The liver in this case was full of nodules, large and small, of a peculiar appearance, which I shall easily recognise again. When I see them I shall not speak so pointedly of their malignant nature. If I had merely tapped her I should never have known what was the precise origin of the dropsy, and I think it possible that the exploratory incision had something to do with the cure. It certainly was so in the second case (No. 67 in the same list).

The patient was sent to me by Mr. Oliver Pemberton. I diagnosed papilloma of the peritoneum, and I opened the abdomen, as usual, instead of tapping, in order to be sure I was not mistaken. The cavity was full of ascitic fluid, and masses of papilloma occupied the pelvis, fixing the uterus. Masses also grew from the omentum, and nodules were scattered all over the intestines. Since the exploratory incision (April 29, 1881) there has been no re-accumulation of the fluid, the patient's health has immensely improved, and the masses are no longer to be felt. There is, however, a suspicion of commencing tubercle in the lungs. How far this may be either a consequence or a cause of the cure of the

papilloma I cannot pretend to say, but it is certain that its cure dates from the exploratory incision.

Two lessons are indicated by this case, both of which I have repeatedly spoken of before. The first is that an exploratory incision is often curative, and as it never has been fatal in my hands, I adopt it always now instead of a first tapping. The second point is that papilloma, or at least one kind of it, must now be ranked as amongst the non-malignant—that is, curable—diseases. I have had five cases in which masses of papilloma, which I have seen and handled, have disappeared after an operation.

Birmingham.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

LONDON HOSPITAL.

PRIMARY DYSMENORRHŒA—SLIGHT STENOSIS OF OS EXTERNUM—DIVISION OF VAGINAL PORTION—RELIEF FOR AT LEAST ELEVEN MONTHS.

(Under the care of Dr. HERMAN.)

[Reported by Mr. LAWTON.]

E. A., aged thirty-one, seaman's wife, admitted into the London Hospital, March 27, 1877.

Family History.—Mother and mother's sister died from some affection of the womb, which patient thinks was cancer.

Personal.—Has always lived well; no illness except measles and scarlatina. Lived at home with her parents until marriage. Was not precocious, but rather slow at school, etc. She first menstruated at fourteen; the function returned at irregular intervals during the first year, but was after this time regular. It was attended with pain from the beginning, worse after marriage, and especially worse the last four years; it now lays her up every month. The pain begins a week before the flow, gradually increases in severity until the menses appear, and then diminishes, ceasing with the flow. It is a paroxysmal pain, felt in the hypogastrium, groins, and sacral region; but she also has a pain like "a heavy weight," a "foreing pain," in the pelvis. When this pain is at its height she has also a "sore shooting pain" in the breasts, which become tender. During the last four years the flow has been increasing in amount, especially during the last twelvemonth. It now lasts four or five days, from four to six napkins being needed daily. Clots and pieces of skin are passed. Just as the flow is passing off there is much pruritus. She has had more or less constant leucorrhœa for the last six or eight years. She does not complain of any urinary or rectal trouble. She was married at nineteen, but has never had any sign of pregnancy. She occasionally suffers from sick headaches and giddiness, especially at the menstrual period. She also complains of occasional pain over the right lower ribs—not more definitely localised, coming on at no regular time, and without any obvious cause. For the last four years the bowels have been confined, and she has suffered from discomfort after food, and flatulence. For twelve months she has been getting thin.

She was well built and fairly well nourished; slightly anæmic; of sallow complexion. There were no signs of disease in any other part of the body than the pelvis. The uterus was natural in position and in shape, except that the os externum was circular, and that the body of the uterus felt as if larger than is usual in women who have not had children. A No. 7 bougie was the largest that would pass the external orifice; it easily passed the os internum.

March 31.—The vaginal portion was divided bilaterally with Küchenmeister's scissors, and nitrate of silver applied to the cut surface, to prevent primary union.

May 1.—Menstruation began on April 27; ceased to-day. No pain at all. No headache. Slight tenderness of the breasts at the beginning of the flow. Pruritus as usual on the last day. Passed no clots or pieces of skin.

July 25.—Has menstruated twice since last note, without pain; last time two weeks ago. Much leucorrhœa. Complains of pain in region of right ovary. Three small blisters ordered.

August 15.—Ovarian pain gone. Menstruated last week, without pain.

February 27, 1878.—Has menstruated regularly since the last note, without any pain.

Remarks (by Dr. Herman).—It is to be remarked in this case:—1. That the os externum was smaller than usual; instead of being a transverse slit, it was circular in shape, and would not admit a bougie larger than No. 7 (urethral). The size of the os was measured by attempting to pass, first a large bougie, and then others successively *decreasing* in size, until one was reached which would enter the os. An attempt to measure it in the opposite manner, by passing first a very small bougie, and then successively larger ones, leads to error, because the instruments so used dilate the os. No. 7 bougie, having passed the external os, penetrated to the fundus without meeting with increased resistance, and there was, therefore, reason to think that the os externum was the narrowest part of the canal. 2. The dysmenorrhœa was primary. With years and marriage the pain increased, the flow became more abundant, and the body of the uterus became hypertrophied. The latter proposition is inferred from the fact that the body of the uterus was larger than usual, it being extremely unlikely that such enlargement was present at puberty. 3. The relief given by enlargement of the os externum only, by division of the vaginal portion, nothing being done to the os internum. 4. The long continuance of the relief given. 5. The patient said that she passed clots and pieces of skin. Although unfortunately no specimen of these was furnished for examination, yet the presence in the fluid of solid particles would appear to be an explanation of what seems a fact, viz., that a canal admitting a No. 7 bougie was not enough to let the patient menstruate without pain. The case appears to show, as completely as can be shown by one case, that narrowness of the external os was the efficient cause of the pain, and enlargement of that orifice the curative agent.

COOKING RICE.—Rice is becoming a much more popular article of food than heretofore. It is frequently substituted for potatoes at the chief meal of the day, being more nutritious and much more rapidly digested. In preparing it only just enough cold water should be poured on to prevent the rice from burning at the bottom of the pot, which should have a close-fitting cover; and with a moderate fire the rice is steamed rather than boiled until it is nearly done. Then the cover is taken off, the surplus steam and moisture allowed to escape, and the rice turns out a mass of snow-white kernels, each separate from the other, and as much superior to the usual soggy mass as a fine mealy potato is superior to the water-soaked article.—*Phil. Med. Rep.*, June 17.

A GENERALISED ERUPTION OF VACCINIA.—Dr. Martin, the well-known promoter of heifer-vaccination, communicates to the *New York Medical Record* (April 15) what he regards as a unique case of a general eruption of vaccinia conveyed to an unvaccinated sucking infant by its revaccinated mother. This lady, twenty days before Dr. Martin saw her, had been revaccinated with bovine lymph with success, and on the sixteenth day her infant, seven months old, who had not been vaccinated because it was the subject of eczema, began to exhibit a number of small red pimples about the arms. These soon spread over other parts of the body, and on the fourth day after they had commenced to appear, Dr. Martin was called in. By that time there were scattered over the entire surface at least 400 clearly defined, quite circular, umbilicated vesicles. The eruption greatly resembled variola on the fifth or sixth day; but the vesicles were perfectly and absolutely circular, however near they were to each other, and were surrounded by bright red, perfectly circular areolæ. Next day confluent scabs had commenced, covering the surfaces. With lymph obtained from these vesicles, fine typical vesicles were produced in the heifer, and with points charged from these, successful vaccinations were performed. Dr. Martin observes that general eruptions and rashes, which were much more common at the earliest period of the history of vaccination than at a later period, are now again, under bovine vaccination, becoming more common. In the course of his paper Dr. Martin protests against the present careless and mischievous distribution of what is called "pure bovine lymph" in the United States.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JULY 15, 1882.

THE GENERAL MEDICAL COUNCIL.

The thirty-third session of the Medical Council was not concluded till the afternoon of Saturday, last week, the Council having sat eleven days. Only twice since the constitution of the Council, in 1858, have they sat longer than eleven days, and on only four previous occasions have they sat so long. In 1864 the Council met for one day in January, and in April they met again and sat for twelve days; and in 1877 the session, which took place in May, lasted thirteen days. The four former sittings of eleven days each took place in 1865, 1866, 1868, and 1876, respectively. The session so recently closed has been, as a whole, an unusually fruitful one. We cannot but think that a large amount of time was devoted with very inadequate results to the Visitors' Report on the Examinations of the nine corporations; but, leaving that on one side, we are glad to be able to admit that the Council got through not a little very necessary and hard work in a way that does them much credit.

We resume now our notice of their proceedings with regard to the Visitors' Report, at the point where we left off last week. The Report of the Council in committee on the Conclusions of the Visitors of Examinations, 1881-82, was considered in Council on Thursday last, the ninth day of the session. We reported last week the resolutions arrived at in committee of the whole Council on the Visitors' Conclusions, and the first seven of these resolutions were adopted by the Council without alteration. But the resolution respecting the provision of a margin of additional time at oral examinations "for satisfying the examiners in all doubtful cases," and that regarding examination in hygiene and preventive medicine, were not adopted as recommendations of the Council, it being decided only to direct the "attention of the authorities" to them as "resolutions of the Council in committee." This concluded the business in regard to the Visitors' Report.

The whole of the sitting on Tuesday, the seventh day of the session, was occupied by the consideration of the case of David Beatson Murdoch. We reported the result very briefly last week; and the whole of the case against Mr. Murdoch, together with his defence, and his plea for a merciful consideration by the Council, will be found at length in our report of the proceedings of the Council this week. The Medical Alliance Association deserves great credit for having brought the case before the Medical Council; and the Council are to be congratulated on having summoned up courage to deal fully and effectively with it. On the eighth day the Council had before them a communication from the South Australian Branch of the British Medical Association in regard to a medical practitioner registered in September, 1877, with the licence of the Apothecaries' Hall of Ireland, obtained in 1877. It appeared that Mr. Hartley Dixon, the medical practitioner referred to, had commenced his professional studies three years before the Medical Council came into existence; that he had been obliged, by ill-health, to go to Australia before his medical education was completed; that he had been gradually led to practise in that country, though unqualified; and that in 1877 he had come over to Dublin, and after attending certain lectures there, he had been admitted to examination at the Apothecaries' Hall of Ireland, and had obtained the licence of that body; and that the Apothecaries' Hall were accused of carelessness and informality in granting him their licence to practise. Mr. Collins, the representative of the Apothecaries' Hall of Ireland, explained the circumstances in which the licence had been granted; and on his motion, seconded by Mr. Macnamara, the Council resolved that, having considered the communication from certain members of the South Australian Branch of the British Medical Association, and the reply of the Apothecaries' Hall thereto, and having heard the statement made by Mr. Collins, "the Council is of opinion that it is unnecessary to take further steps in the matter."

The Council next considered a lengthy petition from Mr. George Stratten Symmons, "lately a registered medical practitioner," to have his name restored to the Register. The applicant's name had been erased from the Register by order of the General Medical Council in May, 1877; and he sent, in support of his petition, various documents showing the esteem in which he was held previous to his conviction, and a certificate regarding his state of health at the time he committed the offence with which he was charged, and which led to his name being erased from the Medical Register. Dr. Chambers moved that his name be restored; but Dr. Pitman interposed on a point of order, contending that the Council had no power under the Act to restore the name. It could only restore names removed on account of persons neglecting to furnish information as to their residences. This led to some discussion, but finally it was resolved—"That the opinion of counsel be taken as to whether the Council has power to restore to the Medical Register the name of a person erased under Section 29 of the Medical Act." The name of William Story was ordered to be erased from the Register; he having been convicted in October last, and sentenced to penal servitude for five years, for having set fire to a house in his possession. The rest of the day's sitting was taken up by dental business.

Several communications of much importance in regard to dental registration were received from the Executive Committee. These documents had reference to various legal opinions on the subject of registration under the Dentists Act, which had been placed by the Executive Committee in the hands of Mr. Farrar, the Solicitor to the General Council, in order that he might advise the Committee thereon. Dr. Pitman moved that the communications be entered on the Minutes; and Dr. Quain, in seconding the motion, gave a brief and clear outline of the proceedings of the Council with regard to this dental business. To his speech, which

will be found in our report of the proceedings of the Council; we must refer our readers; as also to the statement made on the subject by Mr. Farrar. The question was, in short, what was the meaning of the Dentists Act; and Mr. Farrar advised the Council "to act upon the well considered and reconsidered opinion of the Solicitor-General and those associated with him, rather than upon the opinion of Sir John Holker, Mr. R. S. Wright, and Mr. Fitzgerald, whose opinion had been given upon a case submitted by the Dental Association. Dr. Pitman's motion was agreed to; and then Dr. Storrar moved that all the various legal opinions in regard to the registration of dentists under the Dentists Act—the opinions, namely, of Mr. Bowen, Mr. Fitzgerald, the Solicitor-General, and Sir John Holker—be entered in the General Council's Minutes. He contended that all the opinions should be before the Council, in order that the members should have an opportunity of exercising their own judgment upon the matter. The motion was seconded by Dr. Pyle, and supported by Professor Turner and Mr. Macnamara; but Dr. Quain forcibly opposed it, and Mr. Farrar pointed out that the opinions obtained from counsel were confidential documents, and advised their not being published. The Council had in some instances printed and published such opinions, and of course could do so again; but he should certainly advise them to pause before taking any such action. Sir William Gull and Dr. Lyons moved, as an amendment, "That the opinion of counsel for the guidance of this Council for the registration of dentists be considered confidential, and be not entered in the Council's Minutes"; and after some further discussion the amendment was carried, and also passed as an original motion by fifteen votes against six. Professor Turner then moved—"That, adopting the recommendation of the Executive Committee, it rests with the British Dental Association to take the steps, if any, which may be requisite to try the correctness of the course taken by the General Council," in regard to admission to the Dentists' Register; and Mr. Simon seconded the motion. Dr. Lyons, however, expressed a doubt whether it was within the powers of the Council to suggest to another body that they should proceed to litigation; and after some conversation the motion was carried in the following amended form:—"That the Council are not prepared to take steps, as suggested by the Dental Association, to erase names from the Register which have been placed thereon by the Council under legal advice."

On the ninth day the time of the Council was chiefly given, as we have already shown, to the subject of the report of the committee of the whole Council on the Conclusions presented for their consideration by the Visitors of Examinations. Reports were also received from the Committee on a draft Bill for the Registration of Midwives in England and Wales, and from the Committee on Preliminary Examinations; but neither report was considered on that day. The remainder of the sitting was given to the consideration of a resolution, moved by Dr. Aquilla Smith and seconded by Dr. Banks, to the effect that the Branch Council for England be requested to make further inquiry forthwith into the conduct of Mr. Richard Albert Shipman Prosser, M.R.C.S. and L.S.A., and submit to the Medical Council the result of the inquiry. The King and Queen's College of Physicians in Ireland had, in 1881, made a statement to the Council that one of its licentiates had been improperly accused by Mr. Prosser of malpractice. The matter was referred to the Branch Council for England, and that body had replied with the useful formula that "the case did not seem to be one in which the Council could usefully take action." The College then formally complained that the English Branch Council had not made clear inquiry into the matter. After some discussion, Dr. Smith's resolution was agreed to. The tenth day of the session was wholly taken up by the consideration of the Committee's report on a draft Bill for the Registration of Midwives. The matter was discussed at length in committee of the whole Council, and then the report of the Council in committee was duly considered in Council, and finally adopted; but we must defer all detailed statements of the whole subject, and any comment upon it, to a future opportunity.

On Saturday, July 8, the Council passed a resolution directing the attention of the Executive Committee to the charge made against an Irish student of having offered a medical man a large sum of money to personate him at an examination. A committee was appointed to inquire and report upon the deficiency of subjects for anatomical and surgical teaching and examination; and to suggest such remedies as may seem expedient. The President of the Council was requested to bring under the notice of the Registrar-General "the case of G. H. Griffin, an unqualified person, who, in certain death certificates, had forged the name of a registered practitioner." The Registrar was instructed to address certain medical authorities, calling their special attention to the Recommendation of the Council—"That it is desirable that the examinations in general education be left to the universities and to such other bodies engaged in general education and examination as may from time to time be approved by the Council." Some general dental business was transacted; and, in order we suppose to keep up the pleasant excitement of always looking for the unexpected in each new edition of the Dentists' Register, the Council, on the motion of Sir William Gull and Dr. Storrar, resolved—"That any or all of the qualifications in Schedule (A) of the Medical Act be registrable by registered dentists in the Dentists' Register." Various complimentary resolutions were passed, including one, especially well deserved, to Mr. Miller, the Registrar, for his efficient, and we may add willing and courteous, services; and then the Council rose and went their several ways, with the happy feeling that they had rendered good service to the profession and the public.

THE CULTIVATION OF ORGANISMS ON DRY SURFACES.

Our excellent contemporary, the *Deutsche Medicinische Wochenschrift*, of Berlin, accuses us of making "cheap jokes" about Dr. Koch's investigation on the bacillus of tubercle, and more particularly about his staining method and his method of pure cultivation. So far as the staining method goes, it is quite plain that the accusation against us of joking has arisen from a deficient acquaintance with English turns of expression; and as for the cultivation procedure, the appearance of jesting—such as it was—must have been inherent in the subject-matter, and not imported into it by our criticisms, which were perfectly serious. The method of cultivating organisms on a dry surface is a sound and respectable one, and Dr. Koch's demonstration in London in August last proved it, in the estimation of everyone, to be both a dexterous and an efficient method. If the conditions had been the same in the tubercle research, as they were in those whose results were demonstrated to us here, there would have been no reason to refuse to Dr. Koch's new work the credence and approval which he had gained for the earlier. If we may judge by the chorus of acclamation, it does not seem to be generally known that the conditions of his tubercle research are entirely different. He started, indeed, with the same intention—viz., to separate the bacilli of tubercle from other bacilli that may have been mixed with them. But that purpose very soon became subordinated to another and more arduous task—the separation of the tuberculous matter from the organisms

present in it. So absorbing did the new factor in the problem prove to be, that he disregarded altogether his original purpose of separating one kind of bacillus from another; if anything led him to suspect that the bacilli of putrefaction were present, he did not attempt to eliminate them, but he discarded that particular test-tube altogether. Thus the dry method, which had certain recommendations for one particular purpose, came, in the course of the research, to be used for another and quite different purpose, for which it had nothing originally to recommend it. The task of separating various kinds of bacilli from one another being given up, no one would choose the method of cultivating on a dry surface in preference to cultivating in a fluid, if his intention were to show that he had completely eliminated the presence of virulent tubercular matter. Professor Klebs and Dr. Schüller cultivated their tubercular organisms from pieces of tubercle swimming in an albuminous fluid; when the first test-tube began to swarm with organisms, they took a single drop from it and inoculated a fresh tubeful of fluid therewith, and so on for a number of successive tubes, until it was practically certain that there was nothing in the last test-tube that could be referred to the tubercular structure or its juices. Dr. Koch tried that method, but he did not succeed with it. There is no question that it was tuberculosis which he induced by inoculating with the dry scales grown upon a soil of coagulated blood-serum. But no one will pretend to say that the extrication of the bacilli from the midst of tubercle nodules, and their segregation, are as easily effected by the method of dry heat as by the fluid method. The presence of tubercular substance in the dried scales is not only possible, but it is highly probable. The certainty of the elimination of all tubercular matter is further diminished by the circumstance that the quantity transferred from one test-tube to the next was not a minimal quantity, in the sense that a single drop of fluid is minimal, or indeed in any sense. Dr. Koch's conclusions enjoy a very considerable *succès d'estime*, but that esteem would perhaps be less were it clearly understood that the original intention, and indeed the justification, of the method of dry cultivation has been quietly dropped, while the method itself has been put to a use for which it is not at all suited. Perhaps our Berlin contemporary will give us leave to express our respectful disquietude over this matter in all seriousness.

THE REPORT OF THE ROYAL COMMISSION.

Turning again to this Report, there are two points which strike us as being specially worthy of notice. One is the proposal for a joint scheme of examination, and the other the new constitution of the Medical Council.

As to the former, we have already indicated that in our opinion this Report is an honest attempt at a satisfactory solution of some difficulties hitherto felt to be insurmountable. The Commissioners' scheme of Examining Boards is consequently, like many other proposals, unacceptable to many, but it avows no new principle. What amount of obloquy falls on the present system of nineteen licensing bodies will only fall with concentrated violence on the proposed three. Men say that nineteen are too many; they say that the examinations are unequal, though somehow or other the Commissioners have felt it in their hearts to bless this inequality. So when line, and rule, and measure are to be inexorably applied to the medical student, where is the standard to come from? English will still be English, Scottish Scottish, and Irish Irish. We had almost said there were no two horns to this dilemma. It is plain that if the number nineteen is rejected because some prefer three, it is possible again that some would prefer one to the three But it is also quite possible that some might prefer none to the one. Absolute uniformity is, the Commissioners say, undesirable. Why, then, make any attempt at uniformity? If there is to be real uniformity with this scheme, let us have it; but if there is to be only nominal uniformity, perhaps we should be best off without it. Moreover, the sham uniformity is coupled with the other proposal of compensating existing licensing bodies out of new funds, to be paid by students or their friends, for which, directly or indirectly, the profession has to suffer.

The Medical Council have, wisely perhaps, declined to consider the proposals of the Commissioners. They have declined to consider them, as not having been brought before them in official fashion. They may be right; but they might not be wise, and some members must go home with a kind of heart-burning about their ever being there again on the same footing. For the Commission recommend something altogether new—that the numbers of the Council should not only be diminished, but that they should be elected in three ways—first, by direct nomination of the Crown; secondly, by direct representation of the medical profession; and thirdly, in an indirect and roundabout way, by the existing medical authorities.

As to the first scheme, we have ever upheld it as giving an opportunity for putting good men on the Council; and we do not think, at the moment, of one who has not done honour to the selection.

Of the second, our opinion is equally strong and clear, but it may be as well to back it by the separate memoranda of Mr. Simon, Mr. Turner, and Mr. Sclater-Booth, contained in the Appendix to the Report. Of these, that signed by Mr. Simon and Mr. Turner is, to our mind, absolutely convincing; for direct representation implies many things. It means the expenditure of much money, time, and labour, with a most unsatisfactory result. It means putting the profession into the hands of wire-pullers and moneyed men combined. Independence under such a *régime* is impossible. Absolute and rigid laws are sure to be, in the minds of many, the first thing to be obtained. On that there is sure to follow general dissatisfaction, dissent, and very likely free trade in quackery. It has been laid down that the primary object of any Medical Act must be the public and not the private weal. It is evident that professional men do not keep this in view. But it follows from it that though the just rights of medical practitioners are not likely to be overlooked, those of the public come first; and that all our regulations, examinations, etc., can only be directed to one end. That end cannot be securing ourselves in a false position, as of those who alone have a divine *afflatus*; but we ought to be able to show that our knowledge is sound and real—that it is the best which can be got, and that it is worth paying for. Thus, and thus only, can we stand as a privileged class.

As to the third suggested form of election to the Medical Council, the various medical corporations may be left to fight their own battles. Some of them are over-represented, some are under; but there is in each a tenacity and vitality which, directed otherwise, might have secured us from the miseries of another abortive Medical Reform Bill.

THE WEEK.

TOPICS OF THE DAY.

A meeting was held last week at the City Terminus Hotel, Cannon-street, convened by the Committee for the Protection of the Lower Thames from Sewage. It will be remembered that this Committee was appointed in March last, for the purpose of taking steps to procure the appointment of a Royal Commission to investigate the subject; and such Commission having now been appointed, the Committee are

anxious to determine what steps should be taken to insure that the true facts of the case may be submitted to the consideration of the Commission. After explaining the position of affairs to the meeting, the Chairman (Professor Thorold Rogers, M.P.) proposed that the members of the Executive Council named on March 7 last be requested to continue to act, and with power to add to their number. Having established their case, he said, they must now make it as strong as possible. They could hardly believe that the Metropolitan Board of Works (from which opposition might be expected) would be, after all, so indifferent to the public health as to throw any serious obstacles in their way. They (the Committee) aimed at benefiting the public health, but while so doing it was well to know that the body he had named might be hostile to them, and they should be prepared to meet such hostility. The Commission, however, was thoroughly alive to the facts to be laid before it, and it was desirable that the Committee, which had been already well informed, should be enabled in every way to continue its services. Other resolutions bearing on the subject were proposed and carried, and it was agreed that copies of all of them should be sent to the Solicitor to the Corporation of the City of London for his information.

The City companies have responded very liberally to the appeal for extra funds put forward by the Home Hospital for Paying Patients, Fitzroy House, Fitzroy-square, to enable them to acquire new premises. The Goldsmiths' Company has recently made a third grant of £100, and the Clothworkers', Fishmongers', Grocers', and Mercers' Companies have awarded second grants of £105 each, the Stationers' Company has contributed two grants of £73 10s. each, the Merchant Taylors' and Salters' Companies grants of £105 and £52 10s. respectively, and the Leathersellers' and Vintners' Companies grants of £26 5s. each. It appears that the "paying hospital" system is more extensively established than is generally supposed, and that it is likely to become a new and important feature of the future. The *Philanthropist*—a journal recently started,—in an article on the subject, publishes a list of institutions admitting patients who pay something towards their support. The list is admitted to be incomplete, but it shows fifteen hospitals of the kind in different parts of the kingdom. Some, indeed, depart but very slightly from the pure charity principle, the amount paid by a patient being merely trifling. But the list shows, at any rate, that the expediency of requiring payment from those who are able to afford it is becoming generally recognised. The oldest and largest institution of the kind is the Smallpox Hospital at Upper Holloway, established so far back as 1746. At the present time this Hospital has 100 beds for patients who can pay four guineas for the whole period of their stay. The St. Andrew's Convalescent Hospital at Windsor has ninety-five beds for men and women who can pay half a guinea a week, or for children at a charge of from five to seven shillings. This was established in 1856, and upon an average is stated to have 729 paying inmates each year. The West-end Hospital for Diseases of the Nervous System is for children only, and has ten beds with an average of forty-eight inmates per year. Altogether the fifteen institutions enumerated show a total of 477 beds, which are occupied on an average by about 3000 patients in the year, all of whom, it is said, pay something towards the cost of their maintenance and treatment.

Her Royal Highness the Princess Christian recently laid the foundation-stone of the Princess Alice Memorial Hospital at Eastbourne. The late Princess Alice with her family resided at Eastbourne for several weeks in the autumn prior to her death, and on her decease it was resolved at a meeting of the Town Council to give expression to the respect in which she was held by erecting a Memorial Hospital. An acre of ground to the west of the railway station, and not far from it, was presented as a site by Mr. C. D. Gilbert, and subscriptions to the amount of £3300 having been obtained, a contract to erect the building for £4500 was entered into. The Hospital is to be in the cottage style of architecture, with a central administrative block.

Mr. W. J. Payne recently concluded an adjourned inquest held at the Coroner's Court attached to the St. George's Mortuary, High-street, Borough, on the bodies of three newly-born children who died shortly after birth. The feature of each case was that students from Guy's Hospital had attended at each of the confinements, and, owing to the peculiarity of the death certificates given from the Hospital, the local registrars refused to accept them, and hence the coroner's inquiry. Mr. Henry Austin, from Guy's Hospital, who had made the post-mortem examination on two of the bodies, said the students in each case had done in a proper manner all that was necessary. Both children were exceedingly plump, and died from want of vital power. Had fully qualified men attended instead of students, the result would doubtless have been the same; but in one of the instances the student would have acted more wisely had he reported that the case was serious, and that the child could not possibly live, as a fully qualified man would then have been sent. The custom at Guy's Hospital, as at all medical schools, was to allow the students to attend these cases, arrangements being made that men of superior skill and knowledge should always be at hand should they feel any need of advice and assistance. With respect to the signing of the certificates, Mr. Austin admitted that it was the common practice to sign them on the report of the students; and, in reply to the coroner and the jury, acknowledged that they were quite aware that by the Act of Parliament they rendered themselves liable to a fine and two years' imprisonment by pursuing this course. The Coroner observed that the inquiry had revealed a blot in the registration of deaths, and said he would take care to lay the case before the Registrar-General. The jury returned a verdict of death from natural causes in each case, and added a rider censuring the Hospital authorities for not sending properly qualified persons to see the dead bodies before granting certificates for the registrars.

The half-yearly general and financial statement of the Devonshire Hospital and Buxton Bath Charity to June 30 last unfortunately shows that, like other kindred institutions, there is a great want of additional funds to carry out the full usefulness of the institution. During the period 773 in-patients have been admitted, of which number 566 are reported as having been discharged improved. It will be remembered that the Governors of the Cotton Districts Convalescent Fund contributed a very handsome sum towards the extension of this Hospital, and in return a number of beds were placed at their disposal. It would appear, however, from the report, that this privilege has not been fully utilised, and as the Hospital authorities have the power to use these beds, if not required for Cotton District patients, for others, it has been suggested that they might be made use of by patients sent by subscribers of one guinea, if the difference of cost between the guinea and the actual sum required to maintain the sick persons were provided by the recommenders. This would facilitate the admission of patients when immediate admission might be important, add to the valuable work of the institution, and not increase the demands on the funds.

The anniversary meeting of the Sanitary Institute of Great Britain was recently held at the Royal Institution, Albemarle-street, when an address on "The Work of the

Sanitary Institute of Great Britain" was delivered by Edward C. Robins, F.S.A. The fifth annual report of the Institute, recently published, points to the progress that has been made in sanitary science during the past year, and states that ever-increasing interest has been evinced in the cause for which the Institute was established. The report also records that the Council presented some recommendations to the Royal Commission appointed to inquire into the Small-pox and Fever Hospital accommodation of the metropolis, and has prepared some suggestions, more especially with regard to the notification of infectious diseases, to lay before the Committee of the House of Commons now sitting to consider the Police and Sanitary Regulations Bills.

At the ordinary fortnightly meeting of the Metropolitan Asylums Board held on Saturday last, Sir E. H. Currie presiding, the reports from the various small-pox hospitals showed that during the fortnight 78 cases had been admitted, as compared with 74 in the preceding period; 5 patients had died, and 92 had been discharged, leaving 227 still under treatment, or a decrease of 19 in the number remaining a fortnight ago. The number of beds available was 305, against 284 at the previous period. The returns from the two hospitals for fever at Stockwell and Homerton showed that 92 patients had been admitted against 84, 9 had died against 6, and 77 had been discharged against 44 in the previous fortnight, leaving 265 scarlet fever cases against 247, 2 typhus against 3, and 88 enteric against 102. Altogether there were 355 cases of fever remaining under treatment, against 352 at the close of the previous fortnight.

There is at present on view at the Alexandra Palace an International Exhibition of Means and Appliances for the Protection and Preservation of Human Life. The Exhibition is divided into six classes or sections, and amongst the various articles collected for inspection are apparatus of different kinds lent by the Board of Trade, the Trinity House, and the Royal School of Mines and Museum of Practical Geology. The War Office has also, amongst other things, sanctioned the loan of a surgery-waggon and a pharmacy-waggon completely fitted as for service in the field.

THE ELECTION INTO THE COUNCIL OF THE COLLEGE OF SURGEONS.

At the annual election of members of the Council of the Royal College of Surgeons, on Thursday last week, 245 Fellows, out of a constituency of about 12,000, recorded their votes. As we reported last week, Mr. John Marshall and Mr. Henry Power were re-elected on the Council, while Mr. Alfred Baker, of Birmingham, the third retiring member, was replaced on the Council by Mr. John Croft, of St. Thomas's Hospital. The provincial Fellows felt, it may be supposed, sure that Mr. Baker would be re-elected, or they would have attended in such numbers as to *secure* that result. Of course, many did attend, and not a few from distant places, in order to vote for the "best" candidates; and among these provincial Fellows the following may be mentioned:—Messrs. Archer (two), Baker, Bartlett, Pemberton, Williams, West, Rickards, Solomon (two), Tait, and Thomas, Birmingham; Wheelhouse, Leeds; Husband, Bournemouth; Benfield and Franklin, Leicester; Cadge, Crosse, and Firth, Norwich; Smith, Stevenage; Hough, Cambridge; Lee, Salisbury; Maurice, Marlborough; Odell, Hereford; Penhall, St. Leonards; Pern, Southampton; Ross, Ryde; Scriven and Lush, Weymouth; Smith, Northampton; Lund, Manchester; Balding, Royston; Bell and Hutchins, Rochester; Bradley, Nottingham; Bodington, Kingswinford; Carter, Pewsey; Chaffers, Keighley; Footner, Romsey; Swain, Devonport; Jackson, Tunbridge Wells; Teale, Scarborough; Woodman, Ramsgate; Bartrum and Roeckel, Bath, etc. It the evening the Fellows dined together, as usual, at the Albion Tavern, Mr. Prescott Hewett being in the chair. During the evening Sir James Paget proposed, in his usual felicitous terms, the toast of "The General Medical Council," to which his successor in that body, Mr. John Marshall, returned thanks. "The Medical Corporations" was responded to by Mr. T. Spencer Wells, who paid a well-deserved compliment to Sir Erasmus Wilson, eulogising his many liberal donations to the public and the profession, and his general large-hearted and large-minded generosity. Mr. Statham, as Master of the Society of Apothecaries, eloquently responded for that ancient corporation. The health of "The Chairman" was proposed by Professor Humphry, of Cambridge, and Mr. Hewett, in reply, expressed on his own part and that of the stewards their indebtedness to Mr. Woodhouse Braine, the honorary secretary, who certainly was unremitting in his attentions to the guests.

THE GREAT NORTHERN HOSPITAL.

It is announced that a public meeting (at which the Right Hon. Earl Cowper, K.G., will preside) will be held on Wednesday, the 19th inst., at 8 p.m., in the Highbury Athenæum; to consider the present circumstances and position of the Great Northern Hospital, and the needs for increased hospital accommodation in the northern districts. That the northern districts of the metropolis are without anything approaching to an adequate amount of hospital accommodation is an indisputable fact. The Great Northern Hospital has been doing excellent work there for several years, with very limited accommodation for in-patients; and the managers of the charity greatly desire to increase the bed-force of the Hospital, so as to bring it somewhat more nearly in proportion to the needs of the district. We understand that the Executive Committee have plans prepared for a hospital of 100 beds, if the necessary funds can be obtained; and that they have for long been desirous to move the Hospital rather farther north if an eligible site can be obtained. We hope that the Committee will obtain all the support and assistance they require.

THE PARIS WEEKLY RETURN.

The number of deaths for the twenty-sixth week of 1882, terminating June 29, was 960 (535 males and 425 females), and among these there were from typhoid fever 50, small-pox 8, measles 22, scarlatina 6, diphtheria and cronp 42, erysipelas 5, and puerperal infections 4. There were also 57 deaths from tubercular and acute meningitis, 156 from phthisis, 18 from acute bronchitis, 64 from pneumonia, 72 from infantile athrepsia (26 of the infants having been wholly or partially suckled), and 34 violent deaths (26 males and 8 females). The number of deaths registered is less than that of any of the four preceding weeks. Deaths from small-pox have diminished from 22 to 8, from measles from 33 to 22, from diphtheria from 47 to 42, and from erysipelas from 10 to 5. For the first time since the commencement of this year, the proportion of deaths has descended to below 23 per 1000, young infants having participated to a large extent in this diminution. Small-pox, however, seems to be again on the increase, for there have been admitted to the hospitals during the week 51 in place of 35 cases. The births for the week amounted to 1149, viz., 570 males (407 legitimate and 163 illegitimate) and 579 females (431 legitimate and 148 illegitimate); 90 infants were either born dead or died within twenty-four hours, viz., 45 males (29 legitimate and 16 illegitimate) and 45 females (33 legitimate and 12 illegitimate).

AN AMBULANCE SERVICE FOR THE METROPOLIS.

MR. JAMES H. CROSSMAN has recently reported that the Committee, which was appointed at the public meeting held at the United Service Institution in February last for the purpose of organising a Horse Ambulance Service for London, have, after a thorough inquiry and much consideration, decided upon the following proposals:—1. That stations for ambulance waggons to be drawn by horse or hand are necessary in the metropolitan district, especially in those parts where a large number of men are employed. 2. That Sir Edmund Henderson having kindly placed at the disposal of the Committee those police-stations which can accommodate ambulance waggons, the Committee are prepared, provided the necessary funds are forthcoming, to place one, or more if required, at each station. 3. There are fifteen stations which can take an ambulance, and the estimated cost of providing them is £850. Towards this sum the Committee have £250 already promised. In reply to a circular sent to all the hospitals, Mr. Crossman says it is acknowledged by the authorities that such a service would be a great boon to the population generally; that, once commenced and in working order, it would be greatly appreciated and recognised as an absolute requirement of the daily life of the metropolis, and that if the Metropolitan Board of Works would take up the management of the service, as coming within their province, it would at once become a success. As a proof of the feasibility of organising this movement, Mr. Crossman points out the success which has attended the ambulance work of the Metropolitan Asylums Board as perfected by Sir E. H. Currie; and he is authorised to state that Sir Edmund Henderson, who takes the warmest interest in the undertaking, has promised the thorough co-operation of the police in furthering it. On these grounds Mr. Crossman appeals to the public for the necessary funds to enable the Committee to provide these ambulances without further delay.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt-court, Fleet-street, July 6, it was resolved that the annual meeting of the Association should be held at Worcester during the jubilee of the British Medical Association, at an hour and day hereafter to be locally determined, due notice of which will be given. The Council trust that all Poor-law medical officers resident in the adjacent counties will, if practicable, put in an appearance, as many important subjects bearing on the well-doing of the Service will be brought forward—notably, the amendment of the Superannuation Act. The Council hope that if any gentleman has any grievance to complain of he will communicate the facts connected therewith to Dr. Rogers, 33, Soho-square, W.

THE EGYPTIAN EXPEDITION.

THE medical arrangements for this expedition, notwithstanding their very extensive nature, are, we understand, as far advanced as those of any other of the various military departments. Two bearer companies of the Army Hospital Corps, numbering about 300 officers and men, and eight field hospitals fully equipped with every appliance and with a staff of about 300 more of the officers and men of the Army Hospital Corps, are being rapidly got together and encamped at Aldershot for inspection by H.R.H. the Duke of Cambridge. The number of medical officers with this portion of the force exceeds seventy. To the various corps under orders for Egypt a further detail of medical officers, numbering about forty, will be attached. One surgeon-general, two deputy surgeons-general, and six or eight brigade surgeons will form the administrative and senior executive medical staff. It has not yet officially appeared of what officers the medical staff will consist, but rumour points to Surgeon-General Sinclair, at present at Aldershot, and Deputy Surgeon-General J. A. Hanbury, M.B., C.B., now principal medical officer at Dover, and J. Ekin, now at Aldershot, as likely to be selected. Brigade-Surgeons Barnett, Veale, Wiles, and O'Leary are also expected to be among the number, and probably others will shortly be added to them. Base hospitals are to be opened at Malta and Cyprus—in the former island at Gozo, and in the latter on Mount Livados, at an elevation of between four and five thousand feet above the sea, a good road down to the seaboard having been constructed since our occupation of the island. It is gratifying to know that for several months past the health of our troops in Cyprus has been most satisfactory. It must be admitted that the prospects of a campaign in Egypt at this season, from a medical and sanitary point of view, are full of ominous forebodings. We may, however, hope, and indeed expect, that everything that experience, science, and skill can do or suggest will be effectually carried out. The first and most obvious cause of inefficiency among our troops will probably be found to be ophthalmia. As a preventive measure against the communication and spread of this disease through the agency of flies, it would be highly desirable that large quantities of wire-gauze screens or covers for all forms of food or drink issued to the troops in tents, buildings, and hospitals should be supplied. The issue also of veils or screens of silk on a light framework of wire for the protection of the eyes, or in some circumstances of peculiar exposure to sand and flies the use of goggles, would be advisable. Plentiful and frequent sprinklings of carbolised water in and around the tents or other quarters occupied by the troops would also be a likely means of defeating flies or even more dangerous enemies to health. The possibility of the appearance of plague or cholera, or of both, is a contingency likely to be ever present in the minds of the medical officers. Against such influences it may be hoped that the resources of modern sanitary science may be found to be not wholly inoperative. In Egypt, as in Ashantee, the success of military operations will be so intimately connected with the health-condition of the troops that, entirely laying aside all considerations of political necessity or expediency, we look forward with intense professional interest and most sincere good wishes for the success of our brethren about to be engaged in what may be fairly designated as another "doctors' war."

ASSOCIATION FOR OPPOSING THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES BY MEDICAL MEN.

ON Friday evening, July 7, "The Association for Opposing the Compulsory Notification of Infectious Diseases by Medical Men" held its inaugural meeting at the Liverpool Medical Institution, where upwards of fifty medical men attended. Dr. Carter, of Liverpool, the founder of the Association, was elected its first president, with the understanding that he would also for a time act as secretary; and Mr. Hamilton, of Liverpool, was elected treasurer. A large Council was chosen, which included the names of local medical men well known to be opposed to compulsory notification, and of representatives of this opposition in many of the great towns in England. Dr. Carter announced that he had received communications from 184 medical men in and around Liverpool, expressing their willingness to join the Association, and from twenty-five towns where local branches are about to be formed. In Lancashire and Cheshire, and especially in Liverpool, the opposition to "compulsory notification" is very general, as

the proceedings of the last annual meeting of the Lancashire and Cheshire branch of the British Medical Association at Chester, and of the meeting now referred to, prove. A petition is now being signed, praying the Council of the British Medical Association to grant time at their meeting at Worcester for a discussion of the question of compulsory notification of infectious diseases, whereby it is believed an opinion will be obtained from the bulk of the profession quite different from that expressed by their own paper, the *British Medical Journal*.

MR. THOMAS M. STONE.

We have received the following from one of our oldest and most valued contributors. The news—if they can be called so—therein contained are received by us with much regret. We reserve to ourselves to express on another occasion our sense of the loss this resignation involves to the profession at large:—"On Midsummer-day last, Mr. Thomas M. Stone, of the Royal College of Surgeons of England, completed half a century of faithful and confidential service at the College. He was appointed Assistant-Librarian to the College in 1832, and Clerk in 1853; and he has risen gradually in the secretarial department till he has obtained a position equally important and unique. Generations of practitioners and students have grateful recollections of Mr. Stone's ready help and geniality at examinations, registrations, and other Collegiate business and functions. There are many things appertaining to the examinations at the College, which are formidable enough to the student, in addition to the terrors of the examination itself. The student might be perplexed by difficulties in the arrangement of his certificates and other credentials, and in such case would be sure to find in Mr. Stone a genial and kind guide through all that might be obscure and perplexing. During the examinations themselves, he played the part of a Good Samaritan—encouraged the timid, and administered from time to time a little oil and wine. It is said that Mr. Stone now seeks to retire from office, and therefore has declined being nominated for re-election this year. If so he will be sorely missed; and certainly such service as his has been, and so prolonged, will deserve the amplest recognition by the College, including both the governing body and the members at large. It seems to us that it would be well, if possible, to make his duties lighter, —something more of an honorary and less an obligatory kind,—and so to keep him still on the roll of College officers. But, if he persists in retiring, whatever can be done in the way of retiring allowance and of a testimonial are amply merited by this genial veteran, and we are sure will meet with the concurrence of every Member and Fellow of the College."

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

The twentieth annual meeting of this Society was held in the Board-room of the Infirmary on the evening of June 6, 1882. The annual report expressed satisfaction at the number of members and the work of the Society for the closing session. A report of the Commission upon Woolsorters' Diseases, appointed eighteen months previously by the Society, was read, and ordered to be printed for private circulation amongst the members, previously to its general discussion at a forthcoming meeting. Votes of thanks were accorded to the retiring officers, and the following gentlemen were elected to serve for the succeeding year:—*President*: H. Butterfield. *Treasurer*: T. C. Denby. *Secretary*: D. Goyder, M.D. *Committee*: J. Craig, M.D., W. H. Ellis, J. Appleyard, M.B., W. G. Burnie. *Pathologists*: T. Wilmot and J. Appleyard, M.B. *Auditors*: S. C. Hirst and J. Dunlop, M.D.

PROFESSOR LANGENBECK'S SUCCESSOR.

Professor Billroth, having declined the offered appointment of successor to his great master at Berlin, the Berlin Medical Faculty has decided upon sending up to the Minister the name of Prof. Richard Volkmann, of Halle. "We have reason to believe," the *Deutsche Med. Wochenschrift* writes, "that Prof. Volkmann will not decline this call, the worthy crown to the indefatigable work which he has done. As we have several times intimated, Volkmann is one of the ablest of living surgeons, and is undoubtedly the head of the Young German School; so that the decision of the Faculty, which the Minister will certainly gladly accept, will meet with the undivided approval of all those who have at heart the future of the Berlin Medical Faculty."

THE FISH-SUPPLY QUESTION.

If thorough discussion will bring about reform, London need have no fear of being left for the future with only Billingsgate to depend upon for its fish supply. In the matter of the proposed Shadwell fish market, that select body the London Municipal Reform League has issued the following circular:—"Select Committees of both Houses of Parliament have found the preamble of this Bill proved, and that a fish market at Shadwell would be of local and public utility. But the Select Committee of the House of Lords have allowed the Corporation of the City of London to insert two clauses, which, if they stand, will utterly frustrate the objects of the Bill. The first of these clauses gives the Corporation the option, simply by notifying their intention to do so within six months, to take over, by paying the taxed costs of the promoters, all the powers of the Bill. Such a provision will prevent the promoters of the market taking any steps to establish it for a period of six months, and should the Corporation give this notice, it by no means follows that they will make the market at all. This remains optional for them; and as the Corporation have over and over again declared that Billingsgate is amply sufficient for water-borne fish, and as they are interested in maintaining its revenue, it is not probable that they will be anxious to establish the competing market at Shadwell. The second clause is equally fatal to the prospects of the Shadwell market. Billingsgate has long been condemned, even by the Fish Supply Committee of the Corporation, as wholly inadequate for the requirements of the metropolis. And yet this clause stipulates that the proprietors of the Shadwell market shall make good to the Corporation, as owners of Billingsgate Market, any falling-off of dues and tolls at that market on water-borne fish. If these clauses are not struck out, this beneficial scheme of erecting a new fish market at Shadwell —a scheme promoted entirely by fishermen, for the sale of very much larger quantities of water-borne fish, especially of the cheaper kind, to the million poor of the East-end of London—must be abandoned by its promoters." Since the issue of this circular the objectionable clauses of the Bill have been rejected by the House of Commons. Meanwhile, at a Court of Common Council recently held at Guildhall, at which the Lord Mayor presided, the Chairman of the special Fish Committee reported that they had been in communication with Government relative to the sale of the Custom House for the purpose of improving the present Billingsgate site; this matter was still under consideration, he said, as the Government had not made up their minds on the subject. After some discussion it was resolved that the experiment of appropriating the new fruit and vegetable market at Smithfield as a market for railway-borne fish should be proceeded with, since, if it were found to relieve the pressure at Billingsgate, it would be needless to expend money in enlarging that site.

FELO-DE-SE.

THE Act to amend the law relating to interment of persons in cases where a verdict of *felo-de-se* is returned has just been issued. The statute of the 4 George IV. is repealed as to the burial of such persons in a public highway, with a stake through their bodies. Coroners are now to give directions for the interment in a churchyard or other burial-ground. The interment may be made in any of the ways prescribed by the Burial Act of 1880, but the rites of Christian burial are not to be performed. The Act which is now in force is not to apply to Scotland or Ireland.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

AT a regular meeting, held on the 7th inst., the President and Fellows of the King and Queen's College of Physicians in Ireland proceeded to elect by ballot a King's Professor of Practice of Medicine and King's Professor of Midwifery in the School of Physic, in accordance with notice issued last April in the Dublin and London *Gazettes*. The result of the ballot was that John Magee Finny, M.D. Univ. Dub., F.K.Q.C.P.I., Physician to the City of Dublin Hospital, was elected Professor of Practice of Medicine; and John Rutherfoord Kirkpatrick, M.B. Univ. Dub., F.K.Q.C.P.I., Professor of Midwifery.

SIR ERASMUS WILSON.

THE profession will be glad to know that Sir Erasmus Wilson was able to move at the end of last week from London to his residence at Westgate-on-Sea. Sir William Jenner, Dr. Wilson Fox, and Dr. Liveing have recommended Sir Erasmus to stay at Westgate during the summer, and since his arrival there he has written saying that he feels decidedly benefited by the fresh, pure sea-breezes.

MEDICAL PARLIAMENTARY AFFAIRS.

The Health of London.—In the House of Commons, Mr. Dodson, in reply to Mr. Heneage, said that he had received no information as to the alleged prevalence of typhoid fever and other diseases owing to the want of proper precautions in the drainage of houses and stables at the West-end of London. Neither the sanitary authorities nor their officers make any reports to the Local Government Board on the sanitary condition of their districts. He did not know that the want of proper sanitary inspection was due to the omission of London from the operations of the Public Health Act of 1875. He admitted that the sanitary supervision of the metropolis ought to be placed on a better footing.

Beer Adulteration Bill.—On Tuesday the second reading of this Bill was passed by a majority of thirty at the end of the sitting.

THE LOCAL GOVERNMENT BOARD.—The President of the Local Government Board has appointed Dr. Frederick William Berry to be one of the medical inspectors of the Board, in place of Dr. Charles Izard Beard, resigned. Dr. Barry, who possesses the Sanitary Science Certificate of the University of Cambridge, was at one time Medical Officer of Health to the Craven Combined Sanitary Districts, but has since been Sanitary Commissioner, and Principal Medical Officer of the Government, in Cyprus.

PROLAPSUS OF THE FUNIS.—Prof. Depaul, in a lecture on this subject (*Gaz. des Hop.*, No. 43), stated that in twenty years he had met with this occurrence at the Hopital de la Clinique 143 times in 16,613 labours, *i.e.*, 1 in 116. These 143 cases were thus distributed, viz.:—116 prolapse of the cord alone, 16 accompanied by an upper extremity, 9 accompanied by a lower, and 2 accompanied by both a foot and an arm. Of the 143 cases, in only 96 did death of the infant occur; but Prof. Depaul observes upon this unusually favourable proportion that these cases all occurred in the hospital, where every requisite is at hand, and where there is a greater possibility of providing against imminent danger than in private practice.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is the report from the Board and the Court of Examiners of the number of candidates who have presented themselves for the Primary and Pass Examinations for the diploma of Member of the College during the collegiate year 1881-82, showing the number of those who have passed and of those who have been rejected from each medical school during that period:—

Primary Examinations.

Medical School.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	158·50	117·50	41
University College	111	69	42
Guy's	106·50	71·50	35
King's College	63·50	36	27·50
London	57	44·50	12·50
St. Thomas's	50·50	36	24·50
St. George's	48	38	10
Middlesex	40	26	14
Charing-cross	34·83	24·50	10·3
St. Mary's	22·3	14	8·3
Westminster	22	14	8
Manchester	67	47·50	19·50
Cambridge	32·3	24·50	7·83
Liverpool	30·50	19	11·50
Leeds	26·50	18	8·50
Birmingham	21	16	5
Newcastle-on-Tyne	19·50	15·50	4
Bristol	15·50	12·50	3
Sheffield	6·3	2·3	4
Dublin	20	8	12
Belfast	5·3	2·83	2·50
Galway	1	1	—
Cork	1	—	1
Edinburgh	76·50	55	21·50
Glasgow	13	6	7
Aberdeen	2·3	2·3	—
Toronto	5·50	3	2·50
McGill Col., Montreal	2	2	—
Kingston	2	2	—
Halifax	·50	·50	—
New York	1	—	1
Yale	·50	·50	—
Harvard	1·50	—	1·50
Calcutta	5·50	4	1·50
Madras	4·50	3·50	1
Bombay	3	3	—
Melbourne	2	2	—
Paris	·50	·50	—
Madrid	·50	·50	—
Totals	1091	744	347

Pass Examinations.

St. Bartholomew's	115·3	72·50	42·83
Guy's	83·50	53·50	30
University College	58	30·16	27·83
London	44	33·50	10·50
St. Thomas's	37	23·50	13·50
King's College	35·50	22	13·50
St. George's	33·50	23·50	10
St. Mary's	29	15·50	13·50
Charing-cross	27·50	16·50	11
Middlesex	23·3	17·3	6
Westminster	7·50	4·50	3
Leeds	28·50	13·50	15
Manchester	28	18	10
Liverpool	14·3	4	10·3
Cambridge	14	10·50	3·50
Birmingham	13·50	9	4·50
Newcastle-on-Tyne	8·50	3·50	5
Sheffield	8·50	4·50	4
Bristol	3·50	2·50	1
Dublin	7·50	4	3·50
Galway	1	1	—
Cork	·50	·50	—
Edinburgh	18	10	8

Medical School.	Totals.	Number passed.	Number rejected.
Glasgow . . .	4·83	2·3	2·50
Aberdeen . .	3	2	1
Bombay . . .	4	3·50	·50
Calcutta . . .	1·50	·50	1
Toronto . . .	2·50	1·50	1
McGill Col., Montreal	2	1·50	·50
Kingston . .	1·50	1·50	—
Melbourne . .	2·6	2·6	—
New York . .	·50	·50	—
Madrid . . .	·50	·50	—
Paris . . .	2·50	1·50	1
Malta . . .	·50	·50	—
Totals . .	666	412	254

Note.—In the foregoing lists, candidates who are indicated by a fraction have received their education at more than one school of medicine.

FROM ABROAD.

Presentation of a Medal to M. Pasteur.

Several members of the Académie des Sciences and other admirers having determined to present a medal to M. Pasteur, commemorative of his remarkable discoveries, a committee was formed to carry out the proposal; and recently they repaired to M. Pasteur's residence to present him with a fine work of art executed by M. Alphée Dubois. M. Dumas, the great chemist, and Secretary to the Academy, addressed him as follows, in the name of the subscribers:—"My dear Pasteur,—Your life has been one of invariable success. The scientific method, of which you have made such constant use, has conferred on you some of its noblest triumphs. The École Normal feels honoured in numbering you among its pupils. The Academy of Sciences prides itself upon your labours, and France regards you as one of her glories. At a time when from all parts testimonies of public recognition are reaching you, the homage which we offer you, in the names of your admirers and friends, may seem to you worthy of special attention. It emanates from a spontaneous and universal sentiment, and will convey to posterity the faithful representation of your features. May you, dear Pasteur, live long to enjoy your glory and contemplate the fruits of your labours, which are constantly increasing in number and value. Science, agriculture, manufactures, humanity, will secure to you an eternal gratitude; and your name will live in their annals among those that are most illustrious and most venerated."

To this M. Pasteur replied—"My dear master, it is now forty years since I had the happiness to know you, and that you have taught me to love science and glory. Arriving from the country, I left the Sorbonne after each of your lectures transported, and often moved even to tears. From that period your talent as professor, your immortal works, and your noble disposition, have inspired me with an admiration which has only increased with the maturity of my mind. You, dear master, cannot but have divined my sentiments; for there has not been a single circumstance in my life, or in that of my family, whether joyful or painful, from which you have been absent, and which you have not in some sort blessed. And now to-day you are in the first rank in the expression of these testimonies—excessive indeed I must maintain—expressed for me by my masters, become my friends. And what you have done for me you have done for all your pupils; this is one of the distinctive traits of your nature. Beyond the individual, you have always had in view France and her greatness. How am I to act in future? Hitherto, these great praises have inflamed my ardour, and have only inspired me with rendering myself worthy of them by renewed efforts; but those you now address to me in the name of the Academy and learned societies are too much for my courage."

Treatment of Infantile Hereditary Syphilis.

Dr. Archambault recently delivered the following lecture on the above subject (*Gaz. des Hop.*, No. 51), at the Hopital des Enfants Malades.

"No question is perhaps more important than that of the treatment of syphilis, especially in an infant who has acquired it by inheritance. If it is rare in the adult for this to prove a question of life and death, it unfortunately is not so with the new-born child; and accordingly as treatment is well or ill devised and well or ill carried out, the infant will be cured or will perish. This importance of treatment is such that it ought even to precede birth, wherever that is possible, that is to say, when a pregnant woman is averred to be the subject of syphilis. The physician is thus, according to an old expression used in the law courts, *curateur au ventre*. Every woman certainly the subject of syphilis ought to be submitted to the anti-syphilitic treatment of the adult. Intervention should also take place in cases where, although no longer presenting any of the manifestations of the disease, the epoch is yet not distant at which some of the symptoms were observable. Suppose the mother exhibits no traces of syphilis, while the father is syphilitic, it is more difficult to decide. Nevertheless, if you suspect that she has had, unawares to herself, some of the manifestations of syphilis, do not hesitate to intervene; whilst if you feel certain that she has had nothing of the sort, abstain. I may say that, with regard to all the cases that have come under my notice, every time an infant has been born syphilitic, its mother has been the subject of syphilis. Quite lately, I had occasion to observe, in a most honourable family, hereditary syphilis in an infant whose father had a chancre, followed by secondary symptoms, ten years before. He had married only a year ago, and had syphilised his wife, and consequently the infant. We are often consulted on the question whether a young man, formerly the subject of syphilis, can marry with impunity. In such cases we should always act with great severity, in proof of which you have the case I have just cited of syphilis having been communicated at the end of nine years; and I could give you many other examples.

"Should one intervene on the earliest manifestations of hereditary syphilis? The question should answer itself in the affirmative; but yet some authors maintain that we must wait some time in order that the infant may bear the treatment without danger. That is, I declare to you, most fatal advice, for you will find the child wasting away, while, on the contrary, if there is anything that can strengthen it, it is active intervention. When the child is suckled by its mother or a nurse, you have two modes of treatment, the one complementary to the other—the direct treatment of the child; and the indirect treatment of the mother or nurse, to whom you give the suitable medicinal substances. But this latter mode of treatment is only an adjuvant, and employed alone it would prove absolutely insufficient. How is the infant to be treated directly by mercury? The preferable mode is to administer the sublimate dissolved in water or in milk, with which it will form without any inconvenience (notwithstanding what has been said about it) an albuminate of mercury. Baumès commences with one, one and a half, or two milligrammes, progressively increasing the dose to six milligrammes in the twenty-four hours; Bertin commences with two milligrammes, to reach four, his maximum dose; Cullerier begins with five milligrammes; and Basereau prescribes the dose for an adult reduced to a fourth or a third, which comes to pretty much the same. A milligramme and a half seems a very small affair; but if you compare the weight of a child with that of an adult (the mean weight of an infant being five kilogrammes, while that of an adult is seventy), you will find that the dose advised for infants is comparatively a large one. For my part, I ordinarily commence with a milligramme and a half per diem, and, according to the condition of the little patient, gradually reach the maximum of five or six milligrammes. All depends upon whether we have to do with a slight syphilis or with grave symptoms. In certain cases, when I have found myself in the presence of a true cachexia with gastro-intestinal disturbance, I have begun with four milligrammes from the first day. We may employ the *liquor* of Van Swieten, which is a solution of the sublimate in the proportion of a thousandth part, and which allows the quantity of mercury you wish to give to be very easily dosed. Thirty drops of this *liquor* correspond to one milligramme and a half of the sublimate, and I prescribe them to be taken in milk, in three doses, morning, afternoon, and evening, increasing by two drops every other day, until the maximum is attained. In the infant you do

not find, as in the adult, any positive sign of the mercurial saturation of the organism, and the sole rule you have to guide you is the local and general condition of the child. Thus, you will no longer continue to increase the dose when you find vegetations subsiding, ulcerations filling up, and spots disappearing, etc. Mercurial treatment has been accused of inducing intestinal disturbances and provoking diarrhœa; but it is exactly the contrary of this which takes place, and, save in some exceptional cases, the diarrhœa which existed prior to any treatment, disappears almost always under the influence of mercury. Still, should the diarrhœa persist, or should it appear under the influence of a peculiar disposition, you may add, according to its intensity, a half or whole drop, or even two drops, of laudanum to the *liquor;* or still better, you may prescribe five centigrammes of *hydrarg. cum cretâ* twice a day, to which you may add, if required, half a drop of laudanum. Extern l treatment may be employed either alone or concurrently with internal treatment; but for my part I only have recourse to it when mercury is not tolerated internally, and on the condition that it is very effectually administered. A gramme and a half of mercurial ointment may be rubbed in night and morning, continuing it for a considerable time, and varying the part on which the friction is made, in order to avoid producing eczematous eruptions. For the same reason the frictioned parts should be washed from time to time with mild soap. The curative effects of these frictions do not admit of doubt, and in cases of slight manifestation of the disease they may suffice. Nevertheless, whenever it is possible I associate the internal with the external treatment. Sublimate baths also may be employed as adjuvants to general treatment in cutaneous manifestations of the disease. The dose for an infant is from two to six grammes per bath. This may be used even in any metallic bath on condition of adding ten to fifteen grammes of the chlorhydrate of ammonia, or even of simple chloride of sodium, in order to obviate the effects of the decomposition of the mercurial salt in presence of a metal.

"Such is the mode of treating the general accidents of hereditary syphilis in infants, a treatment to which we must add a good hygiene. Thus, alimentation should be severely watched, and especially if the child is brought up on the bottle, which is the case when the mother will not suckle her infant, and under the difficulty there is of finding a nurse who will consent to suckle a syphilitic infant, in the face of the risks she runs, unless she has herself been syphilised. Great care also must be taken to preserve the infant from the impression of cold, which may induce severe intestinal disturbances. It is well known, in fact, that if syphilis is of more frequent occurrence in warm climates, it is also there cured more easily."

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 11th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £70 was distributed among the several applicants.

Leiter's Pliable Metal Temperature Regulators.—Surgeon Shirley Deacon, writing in the May number of the *Indian Med. Gazette*, speaks in the highest terms of the utility of this metallic tubing, which is easily adapted to every form of application, and does away with the discomfort of bladders, flannels, etc., in the use of hot or cold water. Of all shapes and sizes, and cheap in price, when full of water they weigh less than india-rubber bags or tubes covering the same area, are free from smell or uncleanliness, and do not spoil in warm climates—the rubber tubing connecting the regulator with the vessel containing the water being easily replaced. The metal is such a good conductor of heat that a temperature of 59° to 68° Fahr. is as cold as can be borne for any length of time, while water at 36° to 39° produces complete anæsthesia in a short time. When once in action the apparatus will work for hours without further attention. Mr. Deacon has used the tubes in cases of inflammation and fever with great success, and considers them of especial benefit in India. "A large regulator tied over a pillow and used with water at 80° insures a good night's rest in a hot room, and renders one independent of tatties and thermantidotes. One should form part of every railway traveller's kit during the hot weather." They are made by Krohne and Sesemann, Duke-street, Manchester-square.

MEDICAL NEWS.

University of Durham.—Faculty of Medicine.—At the Easter Term, held in June, the following gentlemen satisfied the examiners:—

For the degree of Doctor in Medicine (for practitioners of fifteen years' standing):—

Josiah Oake Adams, F.R.C.S., L.S.A.; John Alexander, L.R.C.P., L.R.C.S.; Philip Cowen, M.R.C.S., L.S.A.; Harry Gage Moore, L.R.C.P., M.R.C.S.; Richard Sanders, M.R.C.S., L.S.A.; Solomon Charles Smith, M.R.C.S., L.S.A.

For the degree of Doctor in Medicine:—

Walter Henry Cheetham, M.B., M.R.C.S.; Frederic Colius Coley, M.B., L.R.C.P., M.R.C.S.; Alexander William Woodman Dowding, M.B., M.R.C.P., L.S.A.; Bernard Faraday Giles, M.B., M.R.C.S., L.S.A.; George Stokes Hatton, M.B., M.R.C.S., L.S.A.; William Pope Mears, M.B., M.R.C.S., L.S.A.; William Smith Porter, M.B., L.R.C.P., M.R.C.S.; William Barrett Roué, M.B., M.S.

The following gentlemen passed the second examination for the degree of Bachelor in Medicine:—

Honours, First Class.—William Crump Beatley, L.S.A.; Charles Samuel Blair; Frederick Greenwood, M.R.C.S.; James Robert Irvine; Charles Henry Milburn; Christopher Vise, M.R.C.S.

Honours, Second Class.—William Elliott Price, M.R.C.S.

University of Dublin.—At the "Comitia Æstiva" (Summer Commencements), held on Thursday, June 29, 1882, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred in the presence of the Senate by the University "Caput," consisting of the Rev. Joseph Carson, D.D., *pro*-Vice-Chancellor; Andrew S. Hart, LL.D., Vice-Provost of Trinity College; and the Rev. James W. Barlow, Senior Master non-regent, viz.:—

Licentiatus in Medicinâ.—Gulielmus Hamilton Allen.

Baccalaurei in Chirurgiâ.—Gulielmus Henricus Burke, Jacobus Chute, Jacobus Seymour Carson, Georgius Fredericus Dean, Benjamin Morgan Dockrell, Gulielmus Franciscus Law, Gualterus Henricus Lougheed, Chaworth Louis Nolan, Gulielmus Fletcher Moore Patton, Georgius Blakeley Russell, Johannes Nicholson Seymour, Travers Robertus Montgomery Smith.

Baccalaurei in Medicinâ.—Thomas Robert Bradshaw, Gulielmus Henricus Burke, Gulielmus Hallaran Bennett, Joseph Bullin, Gulielmus Alexander Carte, Jacobus Chute, Daniel Crowe, Jacobus Seymour Carson, Georgius Fredericus Dean, Benjamin Morgan Dockrell, Georgius Lloyd-Apjohn, Gualterus Henricus Lougheed, Vicars Henricus Fisher, Robertus Howard Fleming, Gulielmus Francis Law, Michael M'Hugh, Carolus Drummond Moutray, Carolus St. Stephen Ricardus Nason, Chaworth Louis Nolan, Alfredus Rice Oxley, Henricus Gulielmus Peard, Gulielmus Fletcher Moore Patton, Georgius Blakeley Russell, Johannes Nicholson Seymour.

Magister in Arte Obstetricâ.—Benjamin Morgan Dockrell.

Doctores in Medicinâ.—Thomas Robertus Bradshaw, Fredericus Carolus Berry, Abraham Cohen, Gulielmus Lovel Hunter, Henricus Malet (*stip. cond.*), Carolus Higatt Tench.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 7th inst., and when eligible will be admitted to the pass examination, viz.:—

Bullen, F. St. John, student of St. Thomas's Hospital.
Halsted, Harold C., of Bartholomew's Hospital.
Hartzhorne, Bernard F., of the Middlesex Hospital.
Hurlbutt, Spencer, of St. Mary's Hospital.
Labey, Julius, of St. Thomas's Hospital.
Levi, Reuben, of the McGill School.
Malden, Frank J., of St. Bartholomew's Hospital.
Mann, Fairman L., of St. Mary's Hospital.
Marriott, Hyde, of University College Hospital.
Nason, Edward, of the London Hospital.
Rolston, Thomas E., of Guy's Hospital.
Seagrove, Herbert A., of University College Hospital.
Simpson, George A. G., of the London Hospital.
Wilson, Albert, of St. Thomas's Hospital.

Fourteen candidates were rejected. The following gentlemen passed on the 8th inst., viz.:—

Addison, Haygarth M., student of Guy's Hospital.
Bluett, George M., of University College Hospital.
Bowie, Robert F., of University College Hospital.
Bryceson, Ebenezer, of the London Hospital.
Earle, Walter G., of University College Hospital.
Fryer, Charles, of Guy's Hospital.
Gabriel, William M., of St. Bartholomew's Hospital.
Goodall, E. Wilberforce, of Guy's Hospital.
Henderson, George C., of St. Bartholomew's Hospital.
Inniss, Benjamin J., of St. Bartholomew's Hospital.
Jessop, Edward, of St. Bartholomew's Hospital.
Lansdale, William, of Guy's Hospital.
Mitchell, Richard P., of the London Hospital.
Popert, Alfred H., of the London Hospital.
Wilson, John R., of the London Hospital.
Woolmer, Shirley L., of University College Hospital.

Eight candidates were rejected. The following gentlemen passed on the 10th inst., viz.:—

Beer, Louis E. S., student of the Middlesex Hospital.
Burns, Alfred H., of St. Thomas's Hospital.
Butt, Francis J., of University College Hospital.
Clarke, J. F. Howard, of the Charing-cross Hospital.
Creagh, Arthur G. M., of University College Hospital.
Evill, Frederick C., of St. Bartholomew's Hospital.
Foulerton, Alexander G. R., of St. Bartholomew's Hospital.
Hamilton, Charles D., of University College Hospital.
Hornby, Thomas E., of the London Hospital.
Howe, Joseph D., of Guy's Hospital.
Kempthorne, Henry L., of University College Hospital.
Malpas, James, of University College Hospital.
Oldham, Montagu W., of Guy's Hospital.
Stamper, Geoffrey C., of Guy's Hospital.
Sydenham, George F., of St. Bartholomew's Hospital.
Tronson, William F., of Guy's Hospital.
Vallance, Hugh, of Guy's Hospital.

Eleven candidates were rejected, including one who had an additional three months. The following gentlemen passed on the 11th inst., viz.:—

Cones, John A., student of St. Bartholomew's Hospital.
Davidson, Charles R., of the Westminster Hospital.
Evans, C. Hotham, of University College Hospital.
Evans, Robert, of King's College Hospital.
Gould, Ernest E., of St. Bartholomew's Hospital.
Henning, John J., of St. Bartholomew's Hospital.
Marder, Edward S., of Guy's Hospital.
Marriott, H. Tancred, of St. George's Hospital.
Roberts, Hugh J., of Guy's Hospital.
Sandoe, John W., of Guy's Hospital.
Smith, H. Craven, of University College Hospital.
Thane, E. Herbert, of University College Hospital.
Weaver, William G., of the Westminster Hospital.
Wright, Alfred J., of the Charing-cross Hospital.

Fourteen candidates were rejected, including one for six months. The following gentlemen passed on the 12th inst., viz.:—

Arnison, Frank G., student of the Middlesex Hospital.
Baker, William H., of St. Thomas's Hospital.
Billups, Percy C. C., of Guy's Hospital.
Bower, Edward J., of the Charing-cross Hospital.
Chamberlain, C. B. d'Eyncourt, of University College Hospital.
Cormick, George, of University College Hospital.
Drew, Joseph B., of St. Mary's Hospital.
Evans, William E., of St. George's Hospital.
Greenwood, Edwin C., of Guy's Hospital.
Hardy, Walter M., of the Charing-cross Hospital
Harris, Arthur W., of the Charing-cross Hospital.
Hilbers, Herman G., of Guy's Hospital.
Koettlitz, Reginald, of Guy's Hospital.
Maddison, Thomas H., of the Middlesex Hospital.
Satchell, Charles G., of University College Hospital.
Smith, F. Anderson, of University College Hospital.
Woodall, William R., of St. Thomas's Hospital.
Youel, Sidney H., of St. Bartholomew's Hospital.

Six candidates were rejected, including one who had an additional three months.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 6:—

Adkins, George, South Devon Hospital, Plymouth.
Graham, George Hubert, Croydon
Harris, Frederick William Henry Davy, Ivybridge, Devon.
Samut, Richard Philip, Trinity-square, Boro'.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Rigby, Percy Alfred, St. Thomas's Hospital.
Donovan, Daniel William, Steevens's Hospital, Dublin.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Fleet-Surgeon Matthew Coats has been placed on the retired list from this date, with permission to assume the rank and title of Retired Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

WAR OFFICE: MEDICAL DEPARTMENT.—Deputy Surgeon-General John Gibbons, C.B., has been granted retired pay with the honorary rank of Surgeon-General.

BIRTHS.

BATEMAN.—On July 5, at Whitchurch, Oxon, the wife of Francis Bateman, M.B. Lond., of a daughter.

DAVIES.—On July 5, at 132, Albert-terrace, Jarrow-on-Tyne, the wife of Hugh Walter Davies, M.R.C.S., of a son, stillboro.

DAWSON.—On July 8, at 28, Hyde-park-street, the wife of Yelverton Dawson, M.D., of a daughter.

GRADHAM.—On June 28, at Madeira, the wife of Michael C. Grabham, M.D., F.R.C.P., of a son.

WILLIS.—On July 8, at Gascony House, West End-lane, N.W., the wife of Arthur K. Willis, M.R.C.S.E., of a daughter.

MARRIAGES.

BARR—WOOLLEY.—On July 12, at Holy Trinity, Walton Breck, Liverpool, by the Rev. Richard Postlance, vicar of St. Titus, Liverpool, assisted by the Rev. F. Grier, incumbent, James Barr, M.D., of L.St. Domingo-grove, Liverpool, to Belle, second daughter of the late J. Woolley, Esq., of Springfield, Everton.

BURTON—DUKE.—On July 11, at Christ Church, Folkestone, the Rev. Arthur Daniel Burton, M.A., to Gertrude, the seventh daughter of Allen Duke, M.D., of Folkestone.

COATS—KNIGHT.—On May 24, at Ladysmith, Natal, James Coats, M.B., Surgeon A.M.D., to Augusta Emily, second daughter of the late Humphrey Evans Knight, Esq.

DALRYMPLE—MARSTON.—On June 3, at Christ Church, Simla, Punjaub, Lieutenant-Colonel W. Lisle Dalrymple, of the Connaught Rangers, to Annie Maud, eldest daughter of Brigade-Surgeon J. A. Marston, M.D.

DORMER—GERRARD.—On July 5, at St. John the Baptist's, Westward, James Alfred Dormer, of The Dial House, Kenilworth, to Ellen Elizabeth, eldest daughter of the late Stamp Gerrard, M.R.C.S., of Hinckley, Leicestershire.

MCCARTHY—MCSWINY.—On July 6, at St. Agatha's, North William-street, Dublin, T. J. McCarthy, son of the late T. McCarthy, M.D., J.P., of Kenmar, co. Kerry, to Teresa, eldest daughter of the late Daniel O'Connell McSwiny.

MARTIN—DE RENZY.—On May 9, at Abbottabad, Punjaub, India, Alfred R. Martin, Lieutenant and Adjutant 5th Goorkha Regiment, to Bessie C. H. G., daughter of Deputy Surgeon-General A. B. C. de Renzy, C.B., Punjaub Frontier District.

PERMAN—LADE.—On July 6, at St. Mary-the-Virgin, Port Glasgow, Arthur H. Perman to Jessie Ella, daughter of George Lade, M.D.

STAMPER—SMITH.—On July 5, at St. Luke's, Chelsea, J. F. Stamper, M.D., of Longbroke Dock, to Ellen Angela, only daughter of E. A. Smith, Esq., R.N., of Winchester-terrace, Chelsea.

UNDERHILL—HOLMES.—On July 4, at St. Mary's, Beverley, Rev. Percy Lees Underhill, M.A., second surviving son of Thomas Underhill, Esq., M.D., J.P., to Florence Mary, youngest daughter of the late Jasper Holmes, Esq., of Tulse Hill, Surrey.

WEBSTER—VALE.—On July 4, at Bidford Church, Warwickshire, the Rev. George Edward Webster, of Birkenhead, near Liverpool, to Mary Ann Henrietta, fifth daughter of J. T. Vale, L.R.C.P., of Bell Court, Bidford.

DEATHS.

ALLEN, AMELIA ADAIR, sixth daughter of the late Samuel Allen, M.D., formerly of Lisconnan, at The Glebe, Derrykeighan, on July 10.

GAIRDNER, MARION, younger daughter of the late John Gairdner, M.D., F.R.C.S.E., at 13, Barnton-terrace, Edinburgh, on July 10.

HEMSTED, CHARLES, eldest surviving son of the late Henry Hemsted, F.R.C.S., of Newbury, Berks, at Brooklyn, U.S.A., on June 2, aged 41.

POTTER, FRANK DOBSON, M.R.C.S., at Chipping Ongar, Essex, on July 7, in his 72nd year.

TAYLOR, JAMES, M.D., Deputy Inspector-General of Hospitals and Fleets, at 12, West Brighton-crescent, Portobello, N.B., on July 9.

THOMPSON, WILLIAM, Colonel late 3rd Madras Cavalry, son of William Thompson, M.D., at his father's residence, Lisburn, co. Antrim, on July 7.

WHITE, EDMUND DOCWRA, youngest son of Edmund White, L.R.C.P. Edin., at 19, Park-terrace, Regent's-park, on July 4, aged 4 years and 5 months.

VACANCIES.

CHILDREN'S HOSPITAL, BIRMINGHAM.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance in the institution. Candidates must send certificates of registration, and testimonials, not later than July 18, to the Secretary, Steelhouse-lane, Birmingham.

CUMBERLAND INFIRMARY, CARLISLE.—An Assistant House-Surgeon. Salary £60 per annum, with board, lodging, and washing. Applications, with testimonials, to be sent in to the Committee not later than July 25.

FLINTSHIRE DISPENSARY.—House-Surgeon. Salary £100 per annum, with furnished house, coals, and gas. Candidates must be registered, possessed of a medical and surgical qualification, and conversant with the Welsh language. Applications, with testimonials, to W. T. Cole, Hon. Sec., Board Room, Bagillt-street, Holywell, on or before July 24.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary £80, rising £10 a year until it reaches £100 a year, with board, lodging, and washing. Candidates must be doubly qualified and registered. Applications and testimonials to J. Rawlings, Esq., The Hospital, Hartlepool, on or before July 21.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Bedford Union.—Mr. John Goodchild has resigned the Third District; population 15,764; salary £100 per annum.

East Ward Union.—Mr. Thomas Sayer has resigned the Kirkby Stephen District: area 19,163; population 2499; salary £17 per annum.

APPOINTMENTS.

Brentford Union.—Albert Benthall, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Ninth District.

Bridgwater Union.—Thomas Marsden, B.M. and M.C. Aber., M.R.C.S. Eng., to the Third District and the Workhouse.

Hereford Union.—Walter Shaw, M.R.C.S. Eng., L.S.A., to the Burghill District.

Kirkleton Union.—Richard Harding, L.R.C.P. Edin., L.F.P.& S. Glasg., to the Prestegrue District.

Malmesbury Union.—Edward A. White, M.C., M.D. Aber., L.S.A., to the Third District.

Skipton Union.—Arthur D. Gripper, M.R.C.S. Eng., L.R.C.P. Edin., to the Grassington District.

Southwell Union.—Horace M. Dancy, L.S.A., to the Farnsfield District.

Uppingham Union.—Robert Roberts, L.R.C.P. Edin., L.R.C.S. Edin., to the Hallaton District.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 8, 1882.

BIRTHS.

Births of Boys, 1241; Girls, 1199; Total, 2443.
Corrected weekly average in the 10 years 1872-81, 2522·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	688	605	1293
Weekly average of the ten years 1872-81, corrected to increased population	757·8	698·4	1456·2
Deaths of people aged 80 and upwards ...	...	...	37

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	11	5	...	13	...	5	...	7
North ...	905947	...	4	4	5	23	...	4	1	13
Central ...	282238	...	2	2	5	2	...	1	...	7
East	692738	...	6	7	2	17	...	1	...	19
South	1265927	6	10	10	4	25	...	3	...	27
Total	3816483	6	33	28	16	80	...	14	1	73

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·515 in.
Mean temperature	59·9°
Highest point of thermometer	78·7°
Lowest point of thermometer	50·2°
Mean dew-point temperature	52·8°
General direction of wind	S.W.
Whole amount of rain in the week	0·88 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 8, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending July 8.	Deaths Registered during the week ending July 8.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2443	1293	17·3	78·7	50·2	59·9	15·50	0·88	2·24
Brighton	109595	80	33	15·7	71·0	51·0	59·8	15·45	0·52	1·32
Portsmouth ...	129916	73	45	18·1	...	...	...	...	...	...
Norwich	88821	65	23	13·5	...	...	...	...	...	...
Plymouth	74449	49	22	15·4	71·5	53·8	58·9	14·94	0·48	1·22
Bristol	210134	129	61	15·1	71·8	49·0	57·3	14·06	1·66	4·22
Wolverhampton	76749	57	28	19·0	74·0	47·5	58·1	14·50	0·86	2·44
Birmingham ...	408532	252	137	17·5	...	...	...	...	...	...
Leicester ...	126275	87	49	20·2	74·0	48·0	58·6	14·78	1·06	2·69
Nottingham ...	193573	151	92	24·8	76·8	47·7	60·3	15·73	1·02	2·59
Derby	83587	52	23	14·4	...	...	...	...	...	...
Birkenhead ...	86582	51	35	21·1	...	...	...	...	...	...
Liverpool	560377	378	231	21·5	70·3	49·0	57·2	14·00	1·51	3·81
Bolton	106767	81	39	19·1	72·0	47·9	55·7	13·17	2·41	6·12
Manchester ...	340931	245	151	23·2	...	...	...	...	...	...
Salford	184004	110	68	19·3	...	...	...	...	...	...
Oldham	115572	80	37	16·7	...	...	...	...	...	...
Blackburn	106460	74	41	20·1	...	...	...	...	...	...
Preston	97656	69	37	19·8	...	...	...	...	...	...
Huddersfield ...	83418	66	36	22·5	...	...	...	...	...	...
Halifax	74713	40	29	20·3	...	...	...	...	...	...
Bradford	266158	130	71	18·5	73·0	51·2	59·8	15·17	1·29	3·28
Leeds	315998	257	112	18·5	73·0	51·0	59·6	15·34	0·91	2·31
Sheffield	290516	213	104	18·7	73·0	50·0	58·8	14·89	0·87	2·21
Hull	158814	98	49	16·1	74·0	50·0	59·8	15·45	0·52	1·32
Sunderland ...	119065	104	44	19·3	77·0	45·0	60·3	15·73	1·72	4·37
Newcastle	147626	120	62	21·9	...	...	...	...	...	...
Cardiff	86724	66	32	19·3	...	...	...	...	...	...
For 28 towns ...	8469571	5620	2934	18·4	78·7	45·0	58·8	14·89	1·13	2·87
Edinburgh	232440	129	90	20·2	74·4	50·6	58·7	14·83	1·02	2·59
Glasgow	514048	398	220	22·3	72·0	47·0	58·9	14·94	1·03	2·62
Dublin	348293	187	137	20·5	70·4	49·3	60·0	15·56	1·12	2·84

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·52 in. The highest reading was 29·94 in. on Sunday morning, and the lowest 29·19 in. on Thursday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

"*" Dr. Neale draws our attention to the fact that there is an error in the ship "How to Use the Digest." The reference given is 924:3, and ought to be 951:3.

A Metropolitan Teacher.—Mr. John Cooper Forster, the junior Vice-President of the College, will succeed Mr. John Birkett as Chairman of the Court of Examiners. Mr. Henry Power, who was elected on the Council, still retains his seat as Chairman of the Board of Examiners, which met for the last time this session yesterday. The pass examinations will commence this day (Friday), and be continued throughout the next and succeeding week.

Hospital Sunday, Liverpool.—The collection this year is £9000—almost exactly the same amount as last year.

School "Over-Pressure" Work.—The mischief to many young children by "over-pressure" of school work has been repeatedly deprecated by medical men, and it is now condemned by the teachers themselves, who complain that under the present system of requiring a certain percentage of passes before a school is classified as doing satisfactory work, they are forced to cram dull and weak children to an extent which is calculated to impair both the mental and physical faculties, and to do far more harm than good. But the Education Code assumes that all children are capable of progressing at the same rate, and a dull, feeble boy or girl is expected to get through the same amount of school work as one who is sharp and strong. The medical protests against this state of things having been of no avail, the teachers themselves are now finding out that the evil must be put a stop to, and nearly 14,000 of them have joined in a representation that a modification of the pass system is necessary, so as to withhold from examination, or to classify in a lower standard, children who, by means of natural dulness or feeble health, are incapacitated for the work required for a pass in the higher standards.

A. Hearn B.—Under the Bakehouse Regulation Act any officer of the sanitary authority may enter and inspect a bakehouse during the hours of baking. By obstruction penalties are incurred.

A. H. G., Piccadilly.—At the Paris Morgue every day, without exception, one of the assistant doctors attached to the medical inspector who has charge of the Morgue must examine the human remains brought in on the previous day, and report in writing as to which bodies should be submitted to a medico-legal investigation, and which should be buried without a post-mortem examination. The collecting together thus of dead bodies greatly aids identification, and in other points of view it has its advantages over our system of depositing corpses in mortuaries and other buildings, situated often in little-known places all over the metropolis.

Cholera.—An official report has been received at Madrid from the Philippines stating that cholera has broken out in Japan, and in the islands belonging to the Sooloo Archipelago.

The Conway Town Council and the Board of Trade.—Owing to the absence of adequate drainage, the state of Deganway threatens to become serious; the same statement being applicable to certain parts of Conway, through a difficulty with the Board of Trade respecting the outlet for the sewerage system. Many new houses have been built, but there being no efficient provision for drainage, the complaints of the residents are continually becoming more urgent. It is stated that the Town Council are desirous to fulfil their duty, but a vexatious obstruction exists, which they cannot see their way to overcome. It may be asked whether the intervention of the Local Government Board might not be profitably solicited under the circumstances?

Spirituous Liquor Law, Holland.—It is stated that a stringent and novel law has just come into operation in Holland, which prohibits the sale of spirituous liquor to any person holding public appointments.

Glanders and Farcy, London.—The appendix to the Report of the Veterinary Department of the Privy Council for the past year discloses that both glanders and farcy were more prevalent in London and the neighbouring counties than in other parts of the country. No less than 85 per cent. of the total cases of glanders, and over 90 per cent. of the cases of farcy reported, occurred within the metropolitan area.

Vegetarian.—The first Food Reform Restaurant in London, called the Alpha, was opened in Oxford-street in 1878. Since then the list of these houses, wholly or partially vegetarian, has considerably increased.

Electricity, America.—The Americans have established a college for the study of electricity.

County Lunatic Asylum, Wells, Bridgwater.—The female side of this Asylum was so overcrowded at the beginning of the month that twenty-two female patients were obliged to lie upon the floor, the number of beds being insufficient. Additional accommodation is now being provided for eighty more females. Meantime, forty patients have been sent to the Birmingham Borough Asylum at Rubery Hill.

A Contradiction.—The report of the breaking-out of small-pox at Bayreuth has been officially contradicted by the journals of Munich.

Laudable.—As the result of the effects of a Committee a new recreation-ground or public garden has been opened at the rear of the London Hospital, Whitechapel-road. The ground, which has hitherto been neglected, is situate in front of some almshouses belonging to the Brewers' Company, who handed it over to the Committee together with a grant towards necessary expenses.

An Inquiry into the Milk-Supply, and its Result.—The result of an inquiry with regard to the sources of the supply of milk to the Workhouse and Swinton Schools was reported to the Manchester Board of Guardians at their last meeting, which, if only from a financial point of view, may be usefully noticed. The whole of the supply of new milk was obtained from practical working farmers who occupied good lands. The skim-milk would be supplied by practical butter-makers in South Derbyshire. The result of the different interviews had been a considerable reduction in the price of both new and skim-milk as compared with last year, and a remarkable reduction from the price of five years ago as compared with last year. The reduction in price for the Swinton Schools was £73 10s. 10d., and for the Workhouse £133 5s., giving a total of £206 10s. 10d. The net reduction, however, as compared with 1877 was £2050.

Untimely Deaths.—The great number of these deaths in England may probably be accounted for on the assumption that the danger in the manufactures, mines, and conveyances is the same as in other countries, but that the frequency of exposure to them is greater. Relatively to the population of England, few countries have such a vast amount of force of every description at their disposal. Nevertheless, it must not be imagined that the number of "accidental" deaths, injuries, and mutilations cannot be reduced in England. To carelessness alone a very considerable number of casualties may undoubtedly be attributed.

A Useful Adoption.—Lord and Lady Brabazon have had the churchyard of St. Mary's, Haggerston—the parish church of a densely populated district—adapted as a recreation garden for the enjoyment of the public.

Insanity or Felo-de-se?—At an inquest held by Dr. Danford Thomas, at Holloway, on the body of a man, aged sixty-two, found hanging to the rail of his bedstead, the jury thought the suicide a deliberate one, and that the verdict should be *felo-de-se*, but the Coroner pointed out that there was a very widespread opinion amongst medical and other persons that the mere fact of suicide must be taken as evidence of insanity. A verdict of *felo-de-se* involved the interment of the body without Christian rites. Ultimately, the jury recorded a verdict that the deceased committed suicide, leaving the question of the state of his mind open.

Condemned Meat: A Butcher's Appeal against a Sentence of Imprisonment.—Sir Thomas Chambers, the Recorder, and the City Justices sitting in quarter sessions at Guildhall, had before them a few days since an appeal by a butcher of Cambridge against a sentence of Sir Thomas Dakin's of one month's imprisonment for sending bad meat to market. After hearing additional evidence, Sir Thomas Chambers said the Court, without deeming Sir Thomas Dakin wrong in his sentence upon the evidence before him, thought, upon the additional facts, that the case might be disposed of by altering the sentence to a fine of £10 and costs. The money was paid. The City magistrates have in some cases lately sentenced persons found guilty of sending diseased meat to market to imprisonment, without the option of a fine, observing that the imposition of fines appeared to have little effect in checking offences of this kind, and it is to be hoped the probability of the alternative will act as a surer deterrent.

Pro Bono Publico.—The dispute between the Home Office and the Lord Chamberlain's department with respect to jurisdiction over the structural arrangements of the London theatres is said to be in a fair way towards settlement, and the Metropolitan Board of Works is proceeding with calling upon the owners of theatres to furnish better protection to the public in the event of accidents occurring.

A Mortifying Deception.—The authorities of the two hospitals at Vevey, in Switzerland, have had the misfortune to go to law against each other in respect of a legacy of a supposed sum of money which never had any existence except in the imagination of the testator. It appears that a French visitor, who lived in good style in the town, died there, leaving a will, in which he bequeathed the whole of his alleged property to the local hospital. Hence a lawsuit between the Town Hospital and the Hospice du Samaritan. When an investigation of the property of the deceased came to be made, it soon became clear that he had not only possessed nothing, but had lived for a long time past upon his wits. The Communal Council of Vevey has consequently renounced all claim to the legacy on behalf of the Town Hospital.

The Coroner and the Corporation of Bury St. Edmunds.—The Town Council having requested the Borough Coroner to hold an inquiry respecting the fire which occurred in the town lately, the latter called a jury together without formal summons, and said he had no power to hold an inquiry on oath, nor to compel anyone to give evidence, no lives having been lost. The jury, however, begged him to go on with the inquiry privately. The Town Clerk observed that £35,000 worth of property had been destroyed in the town by fire within the last six months.

A Valuation Decided, Glasgow.—The Judges of Appeal in the Lands Valuation Appeal Court have sustained a valuation of the Commissioners, under which Woodilee Asylum was valued as a separate and distinct subject from the poor-house. The Barony Parochial Board maintain in the asylum pauper lunatics requiring treatment, and as the Board are not, in the view of the Court, entitled to do this under the Lunacy statutes in the lunacy wards of a poor-house, they cannot have the asylum and poor-house valued as one single subject.

COMMUNICATIONS have been received from—

Mr. T. Coomes, Devonport; Messrs. G. Street and Co., London; The Secretary of the Indian Medical Defence Fund; The Registrar of the Apothecaries' Hall, London; Dr. R. Neale, London; Mr. H. Morris, London; The Secretary of the Sanitary Institute of Great Britain; Urban Schwarzenberg, Vienna; Dr. Wiltshire, London; The Registrar-General of England; Dr. Alexander, Liverpool; The Registrar-General of Scotland; The Local Government Board; The Secretary of the Poor-Law Medical Officers' Association; The Secretary of the Naval Medical Supplemental Fund; Dr. Goyden, Bradford; Brigade-Surgeon L. Kidd, M.D., London; Dr. Clifford Allbutt, Leeds; The Editor of the "Western Mercury"; Mr. J. Chatto, London; Mr. J. F. W. Silk, Leeds.

BOOKS, ETC., RECEIVED—

Surgery, its Principles and Practice, by T. Holmes, M.A.; third edition—Logic Medicine, part i., by C. Meymott Tidy, M.B.—Manual for the Physiological Laboratory, by V. Harris, M.D., and D'Arcy Power, M.A. Oxon.—Ninth Annual Report of the Medical Officer of Health for the Gloucestershire Combined Sanitary District for the Year 1881—Second Volume of Testimonials in favour of John Chiene, M.D. Edin.—Der Uranismus, von W. Bernhardi—Board of Health Report—Annual Report of the Fever Hospital and House of Recovery, Dublin—Testimonials in favour of Joseph Bell, M.D. Edin.—Holidays in Holland—Transactions of the American Gynæcological Society, vol. vi.—London Water-Supply, by W. Crookes, F.R.S., etc.—Supplement to the Queensland Government Gazette—Registrar's Report of the Royal United Hospital, Bath.—A Paper read before the Academy of Medicine, by James Knight, M.D.—Engineering Education at Home and Abroad, by Edward Mitchell—Facts about Manitoba—Diseases of the Ear, by G. P. Field, M.R.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Academie de Médecine—Pharmaceutical Journal—Wiener Medianische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Gazzetta degli Ospitali—Weekblad, etc.—L'Impartialité Medicale—National Board of Health Bulletin, Washington—Analyse—Revista de Medicina—Western Weekly Mercury—Centralblatt für die Medicinischen Wissenschaften—Charity Organisation Reporter—Westminster Review, July—Medical Register—Physician and Surgeon—La Independencia Medica—North Carolina Medical Journal—Boston Journal of Chemistry—Louisville Medical News—Archives de Neurologie, Juillet.

APPOINTMENTS FOR THE WEEK.

July 15. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

17. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

19. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

21. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ORIGINAL LECTURES.

CLINICAL LECTURES
ON DISEASES OF THE ABDOMEN.

By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P.,
Professor of Materia Medica and Therapeutics at University College; Physician to University Hospital, and Professor of Clinical Medicine Physician to the Brompton Consumption Hospital, etc.

LECTURE XIV.
ABNORMAL PHYSICAL CONDITIONS—*Continued.*

III. GENERAL RETRACTIONS.—In contrast with the general enlargements of the abdomen, which we considered in the last lecture, we have to recognise general retraction, which may be the prominent abnormal condition revealed by physical examination, and which occurs in various degrees, until ultimately the abdomen assumes a boat-like shape, and presents a deep concavity in front, the anterior wall appearing to lie close against the spine. This condition may be associated with some local mischief within the abdomen, which can then be more easily detected; or it exists alone. It depends immediately either upon wasting of the structures; emptiness and collapse of the alimentary tube; tonic spasm of the intestinal walls and abdominal muscles; chronic peritoneal adhesions drawing in the abdominal walls; or a combination of some of these causes. A marked temporary retraction during a deep inspiration may be due to abnormal diaphragmatic action. It may be noticed that occasionally the abdomen is enlarged at one part, and retracted at another.

With regard to the conditions with which a retracted abdomen is associated, it must be remarked that it may be a prominent appearance where there is no actual disease affecting this part of the body, and it is chiefly met with under the following circumstances:—

1. In certain cases of cerebral disease, especially acute meningitis, and more particularly tubercular meningitis.

2. In some cases of intestinal colic, especially that due to lead-poisoning.

3. As a part of marked general emaciation from any cause, but particularly where this condition results from starvation, or from disease of the alimentary canal accompanied with chronic diarrhœa. Thus a retracted abdomen is a striking feature in some cases of tubercular ulceration of the intestines.

4. Associated with certain diseases which obstruct the upper portion of the alimentary tract, and thus prevent the entrance or passage of food. Here the depressed abdomen is also partly due to the general wasting accompanying such diseases; but if the œsophagus, stomach, or duodenum should be so affected, either by disease in themselves or by neighbouring conditions, that food cannot be taken at all, or is prevented from passing along the bowel, this tube becomes empty and wasted, and the retraction may reach an extreme degree. In this class of cases it may happen that, should the pylorus be obstructed, the stomach becomes distended, and so the upper part of the abdomen appears full and prominent, while the lower part is depressed.

5. In some cases of chronic peritonitis. Here there may be general retraction, but in other instances there is depression in one part and fulness at another; while of course it must not be forgotten that chronic peritonitis may give rise to general enlargement, and this is the condition which has been most common in my experience.

IV. LOCAL CONDITIONS.—The abnormal conditions falling under this head are very numerous, and it helps materially, in practically dealing with them, to have some definite classification indicating their general nature. Such a classification I propose now to submit for your consideration. Before doing so, however, I must point out that the abnormal local conditions in the abdomen, discovered by physical examination, present much variety in their extent, some being very limited, others so considerable as to border upon the general deviations already discussed. Moreover, do not forget what I have previously told you, namely, that local affections may be associated with these general deviations, and may contribute to their production. I would also at the outset warn you against the abuse of the word "tumour" in relation to the abdomen. This term is used in a very loose sense, and is often misleading; while if a patient once hears it applied to his or her case, it leaves on the mind an impression of an uncomfortable or even painful character, which often can never be effaced. With these preliminary remarks, I proceed now to indicate the groups into which these local abdominal conditions can be divided, and to give some illustrations of each group.

1. One class of cases are those in which an organ or some other structure is found to be displaced, and not occupying its normal position. A subdivision of these cases, so far as they can be made out by physical examination, may be made into:—(*a*) Those where there is simple displacement of one of the abdominal organs within the cavity, as of the liver; (*b*) Those where an organ is not only misplaced, but also unduly movable to a variable extent, chiefly exemplified by the kidney; (*c*) Those where there is an actual protrusion out of the abdominal cavity, so that an organ or other structure can be detected lying under the skin in the subcutaneous tissues, of which the various forms of hernia of intestine, omentum, etc., afford familiar examples; (*d*) Those where one part of the intestine passes into another portion —*intussusception*. Certain peculiar forms of displacement cannot be determined by physical examination, but it might be possible to recognise the fact that an organ had been displaced into the thoracic cavity.

2. A second group may be made to include cases in which there is dilatation of certain parts of the alimentary canal. In most instances it is the stomach which is thus dilated, but occasionally a limited portion of the bowel is similarly affected.

3. A local accumulation of fluid within the abdomen is a not uncommon condition which deserves separate recognition. Although they usually and chiefly contain gases, more or less fluid may be present at times in the distended viscera just alluded to, and this fluid may afford valuable physical signs indicative of the dilatation; but the morbid states which more particularly belong to this division are:—*a*. Accumulations of fluid within certain organs—namely, the bladder (in which more or less urine frequently collects), the renal pelvis (by nephrosis and pyonephrosis), the gall-bladder, and the uterus. Although some of these may cause general abdominal enlargement, as a rule they are of limited extent, and belong to the local group. *b*. Collections of serum in connexion with the peritoneum, limited by adhesions. *c*. Localised hydatid cysts. *d*. Ovarian cysts of small or moderate dimensions.

4. An accumulation of a more or less solid nature may also take place within the alimentary tube; or solid bodies may be retained within certain viscera, which can be detected through the abdominal wall. There are rare instances on record of solid collections in the stomach, amongst others a very interesting case reported by Dr. Best, of Louth, in which the collection consisted of hair. Some portion of the bowel is not uncommonly the seat of a local accumulation of fæces or other materials, and especially the cæcum. Occasionally gall-stones are retained in such numbers in the gall-bladder as to be readily discovered on examination through the abdominal wall. In very exceptional cases calculi in the kidney have thus been made out; or one has been felt lodged in the ureter. The recognition of a calculus in the bladder by surgical methods may also be mentioned here, and when of very large size a stone has even been felt through the abdominal wall.

5. An important class of cases are those in which merely a local firm or indurated thickening or infiltration can be made out with more or less certainty and distinctness. In investigating for this condition very careful palpation is required, and not uncommonly we can only arrive at an indefinite conclusion, or perhaps merely suspect that it is present. At the same time the condition is one that ought never to be forgotten in obscure cases, and should be particularly looked for in the situation corresponding to any persistent local pain or tenderness. The thickening or infiltration may be due to organised inflammatory products, to cicatrisation or inflammatory thickening of an ulcer, or to malignant disease. The structures with which it may be possible to associate these conditions are the abdominal walls, the peritoneum, the stomach—either a localised thickening about its pyloric end or an infiltration of its anterior wall—or the intestine. Not uncommonly it is difficult or impossible to make out definitely what they are connected with; and it may also be mentioned here that local adhesions

of some of the structures alluded to are commonly found along with thickening, which can sometimes be clearly recognised by physical examination.

6. Enlarged solid organs constitute a large proportion of cases in which physical examination reveals some local abnormal state in the abdomen. The organs thus affected are chiefly the liver and spleen, the cause of the enlargement of course varying in different instances, and therefore its extent, characters, etc. Enlargement of the pancreas can also be distinctly made out in some instances. Enlargement in connexion with the kidney is usually due to a fluid accumulation, but it may be of a solid nature, especially that resulting from malignant disease. It may not be out of place to mention here also enlargement of the uterus, in the early period of pregnancy or in certain diseases; and some forms of ovarian enlargement.

7. On the contrary, physical examination may reveal that an organ is contracted and diminished in size. This applies practically only to the liver, as it is almost impossible to recognise such a change in relation to other organs contained within the abdominal cavity.

8. It usually happens that when an organ is altered in either of the directions indicated in the last two groups, it presents more or less obvious changes in its shape and in its physical characters. Occasionally, however, these are the prominent alterations, there being little or no change in size. This again applies chiefly to the liver; but possibly an alteration in shape may be felt in connexion with the kidney, as in the horse-shoe kidney.

9. A separate class needs to be made of those cases in which we have to deal with what may be fairly termed "tumours," where there are distinct growths or masses associated with the abdominal structures. These vary in number in different cases, from one to several; and their nature is of course also variable. As regards their seat of origin, they may be connected with—(*a*) the abdominal walls; (*b*) the peritoneum, especially the omentum or mesentery; (*c*) the absorbent glands within the abdomen, whether lacteal or lymphatic; (*d*) the spinal column; (*e*) certain organs, such as the uterus, ovary, or liver; (*f*) the diaphragm; (*g*) more than one structure, especially in the case of malignant growths, which in their progress tend to involve various parts, so that it may become impossible to localise such a growth in any particular structure.

10. It is expedient also to place abdominal abscesses or local collections of pus in an independent group, in relation to physical examination. This method of investigation not only reveals the presence of these conditions, and enables us to distinguish them from other accumulations of fluids, but further to determine the seat of the collection of pus. I pointed out in a former lecture where abdominal abscesses may form, but it will be an advantage to indicate again in this connexion where they have to be looked for by the aid of physical examination, and the chief situations may be stated thus:—*a*. In the abdominal walls. *b*. Between the diaphragm and liver. *c*. As circumscribed collections of pus in the great omentum, or limited by adhesions in other parts of the peritoneum. *d*. Around certain organs, especially the cæcum (pericæcal abscess), or the kidney (perinephritic abscess). *e*. In the substance of or within organs, practically, including the liver (hepatic abscess), the gall-bladder, or the kidney (renal abscess or pyonephrosis). *f*. In special regions, the abscesses resulting from particular causes, namely, pelvic, lumbar, and psoas abscesses.

11. Morbid conditions connected with the vessels constitute an important class of local abdominal affections discoverable by physical examination. Associated with the arteries we find:—*a*. Aneurisms, usually aortic, more rarely connected with one of the iliacs, the coeliac axis or one of its divisions, or one of the other branches of the abdominal aorta. *b*. Aortic pulsation, a condition of common occurrence, and sometimes of much importance. It may also be remarked that local enlargement of superficial veins may point to obstruction of one or other of the chief abdominal venous trunks.

12. Here again it is necessary to repeat what was said under "general enlargement," namely, that you must be prepared to meet with various combinations of local abnormal conditions revealed by physical examination. One illustration will suffice, and that is, that it is not unusual to find an organ displaced and at the same time the seat of disease altering its size and physical characters.

THIRTY-THIRD SESSION OF THE
GENERAL MEDICAL COUNCIL.

HELD AT THEIR HOUSE, OXFORD-STREET, W.

TENTH DAY—FRIDAY, JULY 7.

UPON reassembling, the Council proceeded to the consideration of the Report by the Committee on a draft Bill for the Registration of Midwives in England and Wales.

Mr. MARSHALL, the chairman of the Committee, in moving the adoption of the report, said the great anxiety of the Committee was that the present session of the Council should not pass without some course being decided upon with reference to the registration of midwives. So long ago as 1877 the Council took the matter into consideration, and came to the conclusion that there should be some legislation upon the subject. The Committee had been careful to examine how far the Council should be committed, under any legislation, to co-operate with the Government in dealing with the question of the registration of midwives, and after the most careful and deliberate consideration of the question they had come to the conclusion which was embodied in the report, that the Council could hardly shirk the responsibility of taking some part in the measure—(hear, hear)—and that they should not merely say that they assented to legislation, but that they should come to a resolution as to how far they should be participators in any legislation on the subject. The Committee merely proposed that the Council should accept the responsibility of appointing a Midwifery Board and receiving reports from it, reserving to themselves the power of approving or disapproving of the proceedings of the Board, and reporting the same to the Privy Council. The Medical Council was created to protect the public in medical affairs, and if there was a medical or surgical matter that concerned the whole community it was the safe delivery of the women of the country. (Hear, hear.) For the Council to declare that they would not accept any responsibility beyond that of approving and sanctioning would be a derogation from its high duties and a shrinking back from what it might be called upon to fulfil; because, supposing the Council passed a resolution that it would only be an approving or sanctioning body, and that it did not approve of undertaking any further responsibility, what a position the Council would be in if an Act were passed to make them undertake a further responsibility! What was proposed was not an undue responsibility to accept. It might be suggested that the powers of the Council should be permissive, and not obligatory, but it had lately been held that "may" and "shall" meant the same thing. It was far better for the Council to grasp the subject in a bold way. It was not an infamous or degrading thing that the Council was asked to do; on the contrary, it was a high and most honourable duty which they were asked to undertake—namely, that of nominating a Midwifery Board, which would do really all the work that was required to carry out the principles of the Act. There was no other body which could do it so well. It had been suggested that the examiners might be appointed in the different local districts; but what a hubbub that would create! It was far better to take the appointments out of the sphere of local antagonisms, struggles, and jealousies, and place them in the hands of a Midwifery Board appointed by and supervised by the Medical Council. He could hardly conceive any causes of friction that might arise between the Council and the Midwifery Board. The Midwifery Board should be appointed by the Branch Council, and the Branch Council should receive an annual report from the Midwifery Board, and send an approval or disapproval of it to the Privy Council. That would be satisfactory to the profession and to the public, and would certainly not involve the Council in any grave responsibility. He hoped the Scotch and Irish representatives would not interpose and prevent the Branch Council from taking the responsibility which he believed they ought to take in justice to the public, in justice to the Government, and in justice to themselves. The financial responsibility of the Council had been cleared away, and with regard to the minor proposals of the Bill, the objections that the Committee found in them need not form part of any positive resolution.

Professor HAUGHTON seconded the adoption of the report of the Committee. At first he was inclined to insist on Ireland being brought in, because Ireland was more advanced in the training of midwives than England; but for the sake of unanimity he would drop that. The only point upon which there had been a serious difference of opinion in the Committee, was the very complicated machinery for forming boards in every assize town, but the promoters of the Bill had undertaken the responsibility of that portion of the scheme, and the Committee thought that everything should give way in the face of the facts that there were 10,000 women at the present moment practising midwifery amongst the poorest classes, and that the families represented by the women delivered by these midwives constituted 60 per cent. of the entire population of the kingdom. He supported practically the entire report.

Mr. SIMON said he did not agree in all the remarks which Mr. Marshall had made, but he agreed with much that occurred in the report of the Committee. He thought the Council were greatly indebted to the Committee, and especially to its chairman, for the pains they had taken in analysing the Bill and giving so many detailed observations upon it, but he was afraid the trouble taken would prove to be in some degree in vain. The time of year made it quite impossible for such a measure to pass the House of Commons with the deliberation which the measure certainly required. The Committee would probably have done better service if it had stated in its own language the principles upon which it would advise the Council to act in the matter, rather than criticised the clauses of what after all was an amateur Bill. The Council had proceeded in the case of the dentists on the lines of an unofficial Bill; and what a mess it got into over it! (Hear, hear.) If the proposition of Mr. Marshall that the report be adopted were acted on, it would be necessary for the Council to go into committee of the whole Council on the clauses of the report. Sir William Gull and himself in drafting their resolutions had tried to save any necessity for that. They were ready at once to accept the first four conclusions of the Committee, but there would be a difference of opinion as to the functions of the Council and upon the third division of the report. In the substance of the Bill he saw two fatal objections. The Committee seemed not to realise the immense gravity of Section 4 of the Bill, which enacted that the Medical Council "shall appoint and perpetually maintain" a Board. That Board appointed by the Council would be agent of the Council, and the Council would be responsible for its actions. Those who carefully read the section would see that the Council would be under a responsibility with regard to the local appointments and the expenses of the Board which the Committee did not appear to have realised. He would beseech the Council, before they let the matter pass out of their hands, to take legal advice as to what the effect of the Bill would be in respect of the demands it might make on the Council. If the Council were directed to do certain things in England and Wales, and the money provided fell short, could there be any doubt that the Council would be looked to to make up the deficiency? The second fatal objection to the Bill was the tremendous machinery which it was proposed should be created. There would be a central register, with the present 10,000 midwives on it. What was the description of those people? Some of them had been spoken of as being drunken and disorderly, and pictures had been drawn of the horrors of their practices. If the Council accepted the responsibility of registering these women, what power would it have of sifting the characters of these women? Surely that was a matter for a local authority to undertake. The Council had had a difficulty about *bonâ fide* dentists, but it would have more difficulty about *bonâ fide* midwives. First, there should be local registers; and secondly, a Board for the certification and regulation of midwives, under conditions to be approved by the Council. He thought that the answer of the Council to the Lord President should be that it could not recommend the Bill as a whole; that the Council should state its views, and suggest that the matter should be dealt with by Government itself when the time came for legislation.

Sir WILLIAM GULL would ask what would be the position of the Medical Council if there were no universities, no corporations, no medical authorities, and no medical schools in the country, and the Medical Council were called upon to legislate for the education of medical practitioners? That was exactly the position in which it was placed with regard to midwives. It was asked to draft legislation for managing these persons when there were no bodies to educate or control them.

After some remarks from Dr. QUAIN, who supported the motion and defended the report of the Committee,

Mr. SIMON suggested that the report should be considered paragraph by paragraph. This was agreed to, and

Mr. MARSHALL then moved—"A. That, in view of the absence of any complete and satisfactory provision for the proper training and due qualification of the women who now act as midwives amongst the poorer classes of the community in England and Wales, it is—as expressed in a resolution of the Council, agreed to on May 24, 1877, and communicated forthwith to the Lord President of Her Majesty's Privy Council—'desirable to provide by legislation for the following two objects:—First, that means under legal sanction should be provided for giving credentials of qualification to competent midwives; and, secondly, that the lives of women in labour should, as far as practicable, be protected from the incompetent.' B. That, for the attainment of these objects, the essential conditions of any legislative enactment are the due training, examination, certification, and registration of a class of qualified midwives, subject to this further condition—that women now practising as midwives may, if certified to be of good moral character and to possess a competent knowledge and experience, be granted certificates under the enactment, and be placed upon the Register. C. That, whilst all registered midwives should be entitled to certain privileges, they must also be subject to supervision and control."

These sections of the report were then adopted *nem. dis.*

Mr. MARSHALL then moved:—"That the following Subsection D of the Report be adopted as Resolution D of the Council:—'D. That, though agreeing with the limitation of the proposed enactment for the registration of midwives, in the first instance, to England and Wales (Section 2), the Committee does not see any objection to the subsequent extension of legislation for a similar purpose to Scotland and Ireland.'" There ought not to be any difference of opinion on the Council as to that resolution. The Committee had agreed to the limitation of the Bill to England and Wales principally because it came to them in that form. It would save a great deal of friction if the proposed enactment were limited to England and Wales, and the Committee at the same time stated that it saw no objection to future legislation for a similar purpose for Scotland and Ireland.

Professor HAUGHTON, in seconding the motion, said there were some features in the Bill which he should not like to see extended to Ireland, although he was quite willing to see them tried in England.

Sir WILLIAM GULL thought that if the Council did not see its way to recommending a measure for England, Scotland, and Ireland, it had better wait for more information.

Mr. MARSHALL said the Bill came to the Council as a draft Bill, sent to them by the Privy Council with a request that they should comment upon it if they thought fit. It did not follow as a logical consequence that because the Council agreed to the limitation expressed in the Bill, it did not think the principle ought to be extended. In 1877 Mr. Simon declared that legislation was necessary for England, and yet nothing had been done. The Committee did not say that no care should be taken of the lives of women in labour in Ireland and Scotland, but they were anxious that something should be done in England, which was the most destitute part of the kingdom. The only country that occupied a similar position was the United States.

The motion was then put and carried.

Mr. MARSHALL then moved—"A. That the several functions and duties which, under the proposals of the 'draft Bill,' are assigned to the General Medical Council, might be better performed by the Branch Council; and, therefore, that in the several sections defining those duties and functions, for the words 'General Medical Council,' the words 'Branch Council for England' be substituted." These functions and duties are as follow:—"(*a*) The appointment of a Midwifery Board and its maintenance by the filling up of vacancies (Section 4); (*b*) the reception of an annual report from the Midwifery Board, as to money received and expended, as to the proceedings of the Board, and as to any suggestions made by the Board (Section 5); (*c*) the power to request or demand information from the Board (Section 5);

(*d*) the duty of transmitting the annual report of that Board, with comments approving or disapproving it, to the Privy Council (Section 5); (*e*) the duty of receiving from the Privy Council the examination rules framed by the Midwifery Board, and giving an opinion to the Privy Council upon them; (*f*) that of receiving notices of, and commenting on, any modifications made in those rules by the Privy Council (Section 18); and, lastly, (*g*) that of giving an opinion to the Privy Council on the scheme for regulating the duties and practice of registered midwives (Section 28)." The first part of the resolution contained the kernel of the question which was to be discussed and decided by the Council. He thought, as regarded the scheme for regulating the duties of midwives, no sort of objection could be urged against the Medical Council or the Branch Council undertaking those duties. With reference to the duty of receiving from the Privy Council the examination rules again, there could be no doubt that the Council would be acting within its legitimate sphere in receiving those examination rules, and giving an opinion on them. It had been objected that the Council ought not to undertake such a responsibility as the appointment of a Midwifery Board. There would be a responsibility, no doubt, but it was the duty of the Council to undertake that responsibility. Further, it had been objected that it might happen that for certain reasons the Midwifery Board might resign, and the Council be placed in great difficulty in reconstituting the Midwifery Board; but he was certain the medical profession would come forward in a body to help the Council out of any such difficulty, and even if they did not, there were to be only five members on the Board, and the Council could nominate a Board from amongst its own members. As to the suggestion which had been made that the Obstetrical Society or the British Medical Association should carry out the proposals of the Bill, they were not chartered societies which the Privy Council would be likely to entrust with so important a duty. He would urge the Council not to be timid in the matter; he believed that the measure would be a good and righteous one, and he trusted that every member of the Council would think seriously before he opposed the proposition.

Professor HAUGHTON seconded the motion.

Sir WILLIAM GULL said if the proposition was by a special legal enactment to give the Branch Council for England powers independent of the General Council, he could have no more to do with it.

Professor TURNER said he entirely shared the difficulty with regard to the Branch Council, because the Branch Council only existed as a part of the General Medical Council. There were, moreover, propositions emanating from a certain source that the Branch Councils should be done away with. He would suggest that the Committee should strike out the words "Branch Council," and substitute "General Medical Council."

Dr. AQUILLA SMITH supported Sir William Gull and Professor Turner in their objections to the Branch Council undertaking the duties assigned in the draft Bill to the General Medical Council.

Dr. QUAIN said that as a matter of economy, and in order to save the General Council great trouble, the suggestion had been made by the Committee that the duties assigned in the draft Bill to the General Council should be imposed on the Branch Council. When the Branch Council ceased to exist its place would be taken by a Divisional Board or something of that kind, and there would be no difficulty on that ground. As to the Branch Council not having any right to undertake such duties, when the Bill passed the duties would be imposed upon the Branch Council by the Act of Parliament, and nobody could then object.

Mr. SIMON asked the Council to observe the conflicting arguments that were used. On the one hand they were told how meritorious it would be of the Council to accept a responsibility, which he believed would be a most dangerous one to accept; and, on the other hand, they were told there were admirable contrivances in the Bill for the Council being under no responsibility at all. If Mr. Marshall would modify the resolution, and say that it would be desirable that the Council should be able to delegate the duties to the English Branch Council, the whole object would be gained.

Dr. LYONS said that at present the Branch Council held a subordinate position with regard to the General Council, but under the anticipated condition of things the Branch Council would be a body empowered to do certain things by Act of Parliament, and it would then have a new and separate existence apart from the General Council. He doubted whether the Legislature would give the powers indicated in the draft Bill to such a body as the Branch Council.

Professor HAUGHTON thought that under the Medical Act the Council had power to delegate almost every power to the Branch Council, and, therefore, perhaps it would be a mistake to substitute the Branch Council for the General Medical Council, as proposed.

After some further discussion, Mr. MARSHALL withdrew his resolution, and substituted for it the following:—"E (*a*). That it may be made competent to the General Medical Council to delegate to the English Branch Council any functions and duties, which, under the draft Bill, are proposed to be assigned to it, except that of making representations to the Privy Council."

This motion, on being put to the Council, was carried unanimously.

Mr. SIMON then moved, as a rider to the resolution, the following motion, of which printed notice had been given:—"D. That, as regards the proposals made in the draft Bill to assign certain functions and duties to this Council, the Council is not prepared to accept the responsibility in unconditional and obligatory terms, such as are used in Clause 4 of the draft Bill; but that the Council would not object to be made, under permissive law, the sanctioning medical authority in the proposed matter; with duty, in that capacity, to approve or disapprove any scheme which the Obstetrical Society (or others) might bring before it for such purposes as are in question." He disclaimed any hostility to the report of the Committee, *per se*, but his contention was that the word "shall" in Section 4 of the Act, read with the rest of the Bill, would make the intended Midwifery Board the agent of the Council, which would be responsible for all that was done by it. He pointed out the wide range of responsibility which this would entail upon the Council, the amount of time which would necessarily be taken up thereby, and illustrated this by the inconvenience already felt in consequence of the amount of time absorbed by dental business. His motion, if adopted, would in fact, in the result, work in this way: that it would render the Bill permissive instead of obligatory, and that the initiation of any measures connected with the organisation and examination of midwives would come from outside—*e.g.*, from such bodies as the Obstetrical or the Medico-Chirurgical Societies.

Sir WILLIAM GULL seconded the motion, which was in entire accordance with his own views upon this question. The initiation of such matters was entirely outside the scope of the Council, which had been created for the purpose of regulating the education of the medical profession. Its duty ought therefore to be confined to sanctioning any scheme which might be brought forward by other bodies, and it would be entirely taking upon itself work foreign to its purposes if it attempted to lay down rules for the education and regulation of 10,000 midwives scattered over the country.

Professor HAUGHTON cordially accepted the motion of Mr. Simon, but was of opinion that it would be more in place at the end of the report of the Committee, of which he regretted that Mr. Simon had not been a member, in order that his suggestion might have been embodied in its report. The motion now proposed would entirely solve the difficulty with regard to Ireland, because the necessary machinery had been already in existence there for two hundred years.

Professor TURNER pointed out that the motion proposed by Mr. Simon was entirely inconsistent with the Bill that had been laid before them, which provided a definite machinery to be worked under the guidance of the Council. It was for the Council to say whether they approved of that machinery or not. According to Mr. Simon's proposition, no machinery would be provided, and, unless initiated by bodies outside the Council, the thing might entirely fall to the ground, and the Bill be inoperative.

The Council then went into committee upon the Report.

Dr. LYONS said the main difference between the proposal of Mr. Simon and the Report of the Committee was that the one would provide a compulsory carrying out of the objects of the Bill, whereas the other would leave it in a permissive form. He preferred the plan suggested by Mr. Simon, and he would ask him to substitute his proposal for delegating the provision of the machinery for carrying out the

Act to bodies outside the Council, in the place of the resolution which he had moved, because the two things appeared to him to be inconsistent.

Mr. SIMON replied that he had only given a sketch of the sort of machinery that might be used for carrying out the purpose foreshadowed by his motion, as an illustration of the working of, what he would call, the optional or permissive system. He deprecated discussing the clauses of the Bill, and advised that they should merely lay down principles. He preferred the resolution which he had moved, and he would only say that if he were carrying that into execution he would substitute the scheme that he had proposed for it. Professor Turner had suggested that the whole question of whether there should be a Midwifery Board or not would thus be left open; but this was a mistake, because the organisations outside the Council would frame their schemes, which would be brought before the Council, and sanctioned or rejected by them.

Professor TURNER said he now understood Mr. Simon's motion to leave the responsibility of framing a Midwifery Board under the Act to bodies outside the Council. But this must be taken with the condition that some outside body must be found which was ready and willing to do this, because, supposing no outside body would take it in hand, the whole thing fell to the ground.

Mr. SIMON said that was his point—that under the Bill as it stood, if no outside body chose to act in the matter, the whole responsibility of administration of the Bill would be thrown upon the Council.

Dr. LYONS: *Quod absurdum est!*

Sir WILLIAM GULL said this would be for the Council to put itself into the same relation towards midwives as it occupied towards medical men. In answer to Professor Turner he would say that if the profession in England was so indifferent to the interests of women in labour, the more disgraceful for them; but there was no obligation on the Council to take upon itself the duty of a vast organisation of this sort. They should be willing to co-operate and sanction, but not to initiate.

Dr. QUAIN said that Mr. Simon's motion was an example of the extent to which inconsistency could be carried, because whereas he had been arguing all day against the Council taking upon itself any responsibility in the matter, he now asked the Council to take upon itself the approval of a scheme put forward by an outside body, for the whole working of which they would thereby render themselves responsible, without having the same control over them as they would if they acted under the present Act, which gave them the appointment of the Midwifery Board.

Professor TURNER pointed out, in reply to Sir William Gull, that his analogy failed when he compared the duties of the Council as regards midwifery, to its duties as regards the education and regulation of the profession. Because when the Council was appointed there were already medical authorities in existence, whereas there was no midwifery authority in England at the present time—they would have to create one; and the question was, how to create it? Should they create it in the way laid down by the Bill, by the appointment of a Midwifery Board which would be primarily responsible to the Council, or allow any outside body to create a Board, which should submit its schemes for the approval of the Council? He adhered to the Report of the Committee. (Cheers.)

Professor HUMPHRY remarked that when so much was made of the responsibility which would be cast upon the Council, it became necessary to consider the importance of the question at issue. It was almost impossible to exaggerate this, because it was a question of the lives and the comfort of a large part of the population of England. Sixty per cent. of the women of England were attended by these 10,000 unlicensed and ill-trained women. Moreover, the interests of the medical profession were largely concerned, for to these women they were obliged to leave the care of their patients. The interests of the Government were concerned, because the Local Government Board employed a vast number of these women. And lastly, if a better class of women (of better character and better education) could be organised, they might exercise an incalculable influence in the homes of the poor. (Applause.) That being so, the Council should not grudge any labour or responsibility in initiating so valuable a measure. Mr. Simon said they should consider principles; to which he replied that the principles had already been considered, were assented to, and had been reported upon to the Council, and they were these: that it was essential that there should be an examination, certification, and registration of midwives. The Council had, therefore, done with principles, and it was their duty now to consider the proposal brought before them for the purpose of carrying those principles into action. The question remained: Did that proposal ask the Medical Council to take upon itself greater responsibilities than it ought to take in so important a matter? (Applause.) They were called upon by the Bill to take the initiative. He would ask: Is there any other body to which the Government could look, or ought to look, for that purpose? (Hear, hear.) Could it be right to say that if the Bill were passed, and at the end of six months some medical authority (and there was very little probability of any medical authority moving in the matter), or some society (and surely Mr. Simon was at the length of his tether when he proposed that the Medico-Chirurgical Society should undertake this business),—(laughter and applause)—that if some outside body such as these did not initiate the matter, then the whole thing should fall to the ground? The object of the Government in handing that Bill to the Council was not to allow the Council to undertake this great work, but to cast that duty upon them by empowering and requiring them to institute a Midwifery Board. He could not agree with Mr. Simon that this responsibility would be too onerous, or that it would include responsibility for the working out of all the details. The mechanism was distinctly directed by the Bill, and it was not, therefore, a case of the Council of its own accord instituting a Board and laying down regulations for it. He could not, holding these views, support the amendment, for such he regarded it, of Mr. Simon upon the Report of the Committee. (Cheers.)

Dr. LYONS, in the course of a long address, pointed out the admirable way in which the regulation of midwives had been carried out by the College of Physicians in Ireland for 200 years; in later years by Sir Patrick Dun's Hospital, the licensees of which were at work in every quarter of the habitable globe; and by other lying-in institutions all over Ireland. Now, what had been done in Ireland could be set in operation without practical difficulty in England; and this was the natural and most efficacious way of securing real control over the midwives—much more efficacious than any centralised system. He had framed a resolution which embodied his views upon the subject—"That this Council desires to see established an efficient system of education, examination, and registration of midwives, for the care during labour of the women of England and Wales; but the Council is of opinion that the duties should be discharged, as in Ireland, by the various teaching and licensing authorities, chartered lying-in hospitals, obstetric societies, and such like bodies; and that this Council is prepared to accept the general supervision of this great work, but is not prepared to accept administrative or accounting functions in regard to a scheme which will probably include from 10,000 to 20,000 persons, over whom it would not be possible for it to exercise the requisite supervision and control."

The motion having been seconded,

Dr. PYLE called Dr. Lyons' attention to the fact that a similar motion to his had been already passed by the Council in May, 1877, after a long debate and consideration by the Medical Acts Committee. The effect of Mr. Simon's amendment would only be to throw the matter over for five years more, until at last it would be taken out of the hands of the Council altogether, and carried out by the Government in connexion with the British Medical Association and the Obstetrical Society.

The PRESIDENT then put Mr. Simon's amendment, which was lost by a large majority.

Dr. LYONS' motion was also negatived, and the original motion being put to the vote, was carried by a large majority.

Mr. MARSHALL then moved—"That, as regards the proposition made in the draft Bill, that any of the funds at the disposal of this Council, or of any Branch Council, might be devoted to the purposes of an enactment to secure the registration of midwives, the Council is of opinion that this is undesirable, and that such portion of Section 34 as relates to those funds should be omitted from the Bill."

The motion was seconded by Professor HAUGHTON, and carried *nem. dis.*

Mr. MARSHALL then moved—"That the suggestions of the Committee in Section 3 of their Report, with regard to the

other proposals in the draft Bill, be forwarded to the Privy Council as the opinions of the Committee.

This was seconded by Professor HAUGHTON, and unanimously adopted.

Mr. MARSHALL then moved the adoption of the last clause of the Report of the Committee:—"In conclusion, the Committee, whilst offering no opinion as to the appropriate time for legislating on this subject, recommend that, in the event of a Bill being brought before Parliament, a copy of the measure, and notice of changes in it, should be communicated to the Council."

The motion, having been seconded, was carried *nem. dis.*

The Report of the Council in committee on the draft Bill for the Registration of Midwives was then unanimously adopted, and ordered to be printed on the Minutes.

The Council then adjourned until eleven o'clock on Saturday, with an expressed determination of finishing the whole of the business by a prolonged sitting.

ELEVENTH DAY—SATURDAY, JULY 8.

Mr. MARSHALL moved—"That in reply to the letter from the Privy Council, dated June 4, 1882, the report on the draft Bill for the Registration of Midwives for England and Wales, adopted by the Council, be transmitted to the Lord President of the Privy Council."

Professor HAUGHTON seconded the motion, and it was carried unanimously.

Dr. AQUILLA SMITH then moved—"That the visitation of examinations in the universities be postponed until the year 1883." The visitation of the examinations of the universities could not be continued this year except in a partial manner. He felt that there was no immediate necessity for a visitation of the universities at all. He thought it was generally believed that the universities were discharging their duties with energy and despatch.

The motion, not being seconded, dropped.

Mr. MACNAMARA then withdrew a notice of motion which he had given—"That this Council ventures respectfully to express to the Lord President the hope that in the event of any steps being taken to draft any fresh Medical Bill founded on the Report of Her Majesty's Commissioners appointed 'to inquire into the grant of medical degrees, etc.,' this Council may have an opportunity afforded them of considering its provisions before it is introduced into the Houses of Parliament."

It was then moved by Mr. MACNAMARA—"That the subjoined extract, in regard to a case considered by the Irish Branch Council on May 31, 1882, be referred to the Executive Committee":—

CHARGE AGAINST A MEDICAL STUDENT.—A medical student was summoned at the Dublin Police-court yesterday, to show cause why information should not be taken against him and the defendant returned for trial, for having attempted to enter into a conspiracy with a medical man of London to fraudulently pass his examination for his medical diploma. The defendant did not appear, and a warrant was issued for his arrest. It was alleged that the student had sought to bribe the London practitioner to go over to Dublin, personate him, and pass the examination for him, the consideration being a sum of £250.—(*Daily Telegraph*, June 30, 1882.)

He did not want to delay the business of the Council, but it was most important that the Executive Committee should know something about the facts of the case, because this man would proceed to register himself as a medical student, and the Executive Committee should know if there were any facts which justified them in refusing to register him as a medical student.

Professor HAUGHTON seconded the motion, and after some discussion,

The motion was put and carried.

Dr. LYONS then moved—"That a Committee be appointed to inquire into and report upon the alleged probable deficiency of subjects for anatomical and surgical examinations, if fully carried out on the dead body, in London, Edinburgh, and other places, and to suggest such remedies as they may deem expedient." The majority of the Council were satisfied that it was an essential condition, in order to complete a thorough system of examination in anatomy and surgery, that the student should be brought face to face with the dead subject and examined on the anatomical parts, and called upon to explain surgical operations. The only difficulty about that seemed to be the deficiency of subjects. It had occurred to him, that in this matter the resources of Ireland might be brought in aid, and that the Committee might inquire into the question as to how far, for instance, the anatomical examination of the students could be carried out on the lower animals. It would satisfy a great many purposes if students underwent an anatomical examination on the horse, or the ox, and in that way a good deal of knowledge of comparative anatomy would be acquired by the profession. The profession would also acquire a practical acquaintance with the anatomy and the surgical requirements of the lower animals, which was a subject that constantly came under the observation of medical men. The possession of this knowledge would induce a more scientific treatment of the lower animals, and would remove the cause of the infliction of a vast amount of cruelty upon them.

Dr. PYLE seconded the motion.

Mr. MARSHALL suggested that the motion should be modified, as follows:—"That a committee be appointed to inquire into and report upon the deficiency of subjects for anatomical and surgical teaching and examinations, and to suggest such remedies as they may deem expedient."

This was agreed to, and the motion as amended was put and carried unanimously.

The following gentlemen were then nominated to form the committee:—Mr. Marshall, Professor Humphry, Dr. Pyle, Dr. Heron Watson, Professor Turner, Mr. Macnamara, Professor Haughton, Dr. Fergus, and Dr. Lyons.

The next notice of motion being by Sir William Gull—"That for putting into action Section 29 of the Medical Act three-fourths of the votes of the whole Council must be in the affirmative,"

Dr. PITMAN, in the absence of Sir William Gull, stated that motion would be withdrawn, Sir William Gull being convinced that it was not within the power of the Council to effectually pass the proposed resolution.

Dr. STORRAR then moved—"That the Registrar of the Medical Council be instructed to address a letter to the Registrar of the University of Durham, suggesting for the consideration of the University whether the time has not arrived when it is expedient for the University to discontinue their 'registration examination for medical students.'" He need not remind the Council of the great exertions that had been made from time to time to bring all the examinations in Arts in the country under examination boards for general education, and to do away with all Arts examinations of a special character. When those examinations were first instituted, the University of Durham, seemingly to meet the demand of the time, instituted a special examination for medical students. It was not, in the proper sense of the term, a University examination, but it was an examination open to all young men in the country who were destined for the medical profession. There was a great rush of men to this examination at its first institution, and after a few years it was thought expedient to have an inquiry into the nature of the examination; and the result of the inquiry was that the examination proved to be almost a farce. Remonstrances were made to the University, and the result was a very considerable diminution of the men who passed; but gradually the numbers had been creeping up again. In the year 1881, thirty-three men passed this examination, while not one passed its junior local examination, its examination for students at the end of the first year, or its examination for its degree in Arts, and only one passed its senior local examination. As to the class of men who went to this special registration examination, perhaps it was unreasonable to conjecture that it was the weak men who went there. There was no necessity for continuing the examination any longer, and the Council should ask the University of Durham to discontinue it.

Dr. PYLE said, as representing the University of Durham, he would have no objection to seconding the resolution. He had not the least objection to the motion being placed before the Senate of the University. There used to be a great number of men come up to the junior and senior local examinations at Durham, but lately Cambridge had formed a centre in Newcastle; and the University of Cambridge having a greater status than the University of Durham, the majority of the pupils naturally went to the Cambridge examination.

The motion was then put and carried.

Dr. QUAIN then moved—"That it be remitted to the President of the Council to bring under the notice of the Registrar-General the case of G. H. Griffin, an unqualified person, who in certain death certificates forged the name

of a registered practitioner named D. B. Murdoch. In the year 1877 a similar case to Griffin's arose, and in reply to a communication from the Medical Council the Registrar-General said that if a clear case were reported to him of an unqualified man forging the name of a registered medical practitioner, in the hope of obtaining a conviction he would take the opinion of the legal authorities serving under the Lords of the Treasury, whether legal proceedings should not be instituted. There never was a clearer case than the present, for Murdoch swore that he had given no authority to Griffin to sign his name, and Griffin being an unqualified person, the only way in which he could be reached was to bring the case under the notice of the Registrar-General.

Dr. Banks, in seconding the resolution, said there never was a grosser case, and he thought if possible the man should be prosecuted as a warning to others.

The motion was put and carried unanimously.

Dr. Storrar, the Chairman of the Committee on Preliminary Examinations, then moved—"That the examinations of the Intermediate Education Board of Ireland—junior grade, middle grade, and senior grade—be placed on the list of examinations recognised by the Council, provided the certificates contain all the subjects required by the Council." He might explain to gentlemen not resident in Ireland that these intermediate examinations were the outcome of Lord Cairns's Act for encouraging secular education in Ireland. The Intermediate Education Board had established examinations, and those examinations were of a high character. (Hear, hear.) The only thing that had been said of them was that they were too high. The Council should recognise these examinations, in the first place because of their merit, and secondly because it was exceedingly desirable to do away with all special examinations conducted by medical bodies or conducted under the superintendence of medical bodies. The College of Surgeons, Ireland, and the Apothecaries' Hall, Ireland, still continued to superintend their own examinations, and it would greatly tend to the discontinuance of those examinations if the examinations of the Intermediate Education Board of Ireland were recognised by the Council.

Professor Haughton seconded the motion.

Mr. Collins stated that the Apothecaries' Society of Ireland was perfectly willing to transfer its preliminary examination to the Intermediate Commissioners whenever necessary.

The motion was then put and carried.

Dr. Storrar said the next motion he had to move on behalf of the Committee was—"That the Registrar be instructed to address a letter to the following bodies—The Apothecaries' Society of London, the Royal College of Physicians and Surgeons, Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the Apothecaries' Hall of Ireland, and the College of Surgeons, Ireland,—calling their special attention to the following recommendation of the Council:—'That it is desirable that the examinations in general education should be left to the universities, and to such other bodies engaged in general education and examination as may from time to time be approved by this Council.'" In England the only body which still conducted its preliminary examination was the Apothecaries' Society of London; in Ireland the only two bodies were the Apothecaries' Hall of Ireland and the College of Surgeons, Ireland. The Apothecaries' Hall were willing to transfer their Arts examination to this Intermediate Board, and Mr. Macnamara would, no doubt, be glad of this motion being carried. As regards the bodies in Scotland, he (Dr. Storrar) knew what their difficulties were, but he thought a motion of this kind would strengthen their hands if any effort were made in Scotland to establish public examinations in Arts which would enable them to transfer their special examinations to a board of general education.

Mr. Simon seconded the motion.

Dr. Haldane said that, so far as the Colleges of Physicians and Surgeons were concerned, they would be quite willing to give up the preliminary examination, provided there were a perfectly open examination in the universities. In the University of Edinburgh there was a special examination for medical students, the number of medical students who went up to it being extremely large; and under the circumstances the Colleges of Physicians and Surgeons were not prepared to give up their own examination, because if a student had to go before a university which educated in medicine to pass his preliminary examination, he was very likely to continue his studies there.

Dr. Heron Watson said the matter had been brought before the College of Surgeons of Edinburgh on a former occasion, when it expressed its readiness, as soon as such an examination as that of the College of Preceptors in England could be obtained in Scotland, to abandon its preliminary examination.

The motion was then put and carried.

Dr. Storrar then said that the Committee proposed to postpone the completion of its Report till the next session of the Council. In the meantime it requested the Council to approve the following resolution:—"That the Registrar be instructed to send a circular to each of the bodies contained in List 4—viz., Indian, colonial, and foreign universities and colleges—down to and including 73, asking for information on the following points with respect to their examinations recognised by the Council:—1. Percentage of highest marks; 2. Percentage of pass marks; 3. Number of candidates at examination referred to; 4. Copies of the examination papers set." The recommendations on the subject of preliminary education showed a long list of Indian, colonial, and foreign universities, embracing universities in India, British North America, the United States, the West Indies, Australia, and New Zealand; and the question naturally asked was, what was the value of those examinations? A very great interest was taken in India and the British colonies on the subject of education, and the presumption to be drawn was, on the whole, favourable to these examinations, but the Committee felt that the Council should receive as much information about these examinations as it had a reasonable right to demand.

Professor Haughton seconded the motion.

After some remarks from Professor Turner and Dr. Fergus, who supported the resolution, it was put and carried unanimously.

Professor Haughton then asked the permission of the Council to withdraw a motion of which he had given notice—"That the procedure of the Council in registering dentists has been at variance with the opinion of Mr. Charles Bowen."

This was assented to, and the motion was accordingly withdrawn.

The following Report by the Dental Committee was then read:—"With reference to the cases of John Thomas Lambert and Joseph Walker, referred back to them by the General Council, the Committee find that John Thomas Lambert and Joseph Walker have now answered the communications addressed to them, and that they are in the same position as regards qualification as the other persons who are on the Dentists' Register, and who answered in due time the letters sent to them by the Council. The Dental Committee report these facts to the General Council.—Henry W. Acland, Chairman."

Dr. Pitman said that these two persons' names were upon the long list which was submitted to the Council by the British Dental Association as being the names of persons who were fraudulently on the Dentists' Register by reason of their stating that they practised dentistry with pharmacy, they not being on the Pharmaceutical Society's Register. The Dental Committee made investigations with regard to these persons generally, and reported to the Council. The cases of Mr. Lambert and Mr. Walker were, however, referred back to the Dental Committee for them to make further inquiries. The Committee ultimately found that these two persons were in the same condition as the majority of the persons named in the list, and he would therefore move that the Dental Committee not having put the Council in possession of evidence to show these persons were not eligible to be entered on the Dentists' Register, their names be now entered on the Register.

Dr. Aquilla Smith having seconded the motion, it was put and carried unanimously.

Mr. Turner then moved—"That one year's *bonâ fide* apprenticeship with a registered dental practitioner after being registered as a dental student may be counted as one of the four years of professional study." Medical students were required to give evidence of having spent four years in professional study, and apprenticeship might count as one of those four years. The motion, therefore, was merely asking the Council to affirm for the dentists what it had already affirmed for the medical students.

Dr. HERON WATSON seconded the motion, which was put to the Council and carried.

Professor TURNER then moved—"That the three years of instruction in mechanical dentistry or any part of it may be taken by the dental student either before or after his registration as a student; but no year of such mechanical instruction shall be counted as one of the four years of professional study unless taken after registration."

Dr. HERON WATSON seconded the motion, upon which, after some discussion,

Dr. LYONS moved—"That in the opinion of this Council, it is desirable that the dental student should spend a period of three years in the study of mechanical dentistry."

Professor HAUGHTON seconded the amendment, but on being put, it was lost, and the original motion was put and carried by a large majority.

Sir WILLIAM GULL then moved—"That all or any of the qualifications in Schedule (A) of the Medical Act be registrable in the Dentists' Register." He contended, notwithstanding the opinion of Mr. Bowen, that under Section 11, sub-section 6, of the Dental Act, all additional diplomas, memberships, licences, letters, or degrees which appeared to the Council to be granted after examination by any of the medical authorities in respect of a higher degree of knowledge than was required to obtain a certificate of fitness under the Act, might be registered. Having the power to register these additional diplomas, etc., he thought the Council ought to exercise the power, first *pro bono publico*, and secondly because it would encourage the dentists to attain a higher degree of education.

Dr. STOERAR seconded the motion.

After some remarks from Professor HAUGHTON, who supported the motion,

Dr. QUAIN said that the trouble that the Council had had over the Dentists' Register arose from their not having adhered to the law. By acceding to the motion the Council would be creating a most dangerous class of persons, viz., a class of partially educated medical and surgical practitioners, who would, in a short time, undertake the constitutional treatment of disease. If the Council put these licences and degrees on the Register the persons who possessed them would form a small minority of those on the Register, and the persons with these licences and degrees would find that the lower-class dentists would be competing with them, and treating patients for diseases of a medical and surgical character, because there would be nothing to prevent them doing so.

Professor TURNER then moved, as an amendment—"That all, or any, of the qualifications in Schedule A of the Medical Act, granted by any of the medical authorities who have power to hold examinations for testing the fitness of persons to practise dentistry or dental surgery, and to grant certificates of such fitness, be registrable in the Dentists' Register."

A prolonged debate ensued upon Sir William Gull's motion and Professor Turner's amendment, in which Mr. Macnamara, Professor Turner, Dr. Storrar, Sir William Gull, Dr. Lyons, and Mr. Simon took the leading part. In the result, Professor Turner expressed his readiness to withdraw the amendment, which course was acceded to by the seconder, Dr. Aquilla Smith; and Sir William Gull's motion was unanimously adopted in the following modified form:—"That any, or all, of the qualifications in Schedule (A) of the Medical Act be registrable by registered dentists in the Dentists' Register."

After some cases of alleged offences against the Dentists Act, involving irregular practices, had been brought before the Council, and directions given to the British Dental Association thereon, the proceedings were wound up in accordance with the custom of the Council by the usual complimentary resolutions, including a cordial vote of commendation and thanks to the Registrar, Mr. Miller, for the able manner in which he had arranged and recorded the unusually complicated business brought before the Council during the present session.

ROYAL INSTITUTION.—A new volume of the Classified Catalogue of the Library of the Royal Institution of Great Britain, by Mr. Vincent, the Librarian, is now ready; it includes the most important works published during the last twenty-five years, placed under their respective heads, accompanied by a synopsis and indexes of authors and subjects.

ORIGINAL COMMUNICATIONS.

CASE OF

PUNCTURED FRACTURE OF THE SKULL:

PARALYSIS: CONSECUTIVE ABSCESS OF THE BRAIN: FATAL ABOUT THE END OF THE SIXTH WEEK.

By JOHN COCKLE, A.M., M.D.,

Fellow of the Royal College of Physicians; Senior Physician of the Royal Free Hospital

[From notes taken by R. CATHCART BRUCE, M.B., C.M. Edin.; late Res. Med. Officer of the Hospital.]

J. L., aged forty-three, by occupation a painter, was engaged in painting a doorway (March 26, 1882), when an iron gutter, loosened by some men at work above him on the roof of a three-storey house, fell and struck him with one of its sharp corners. The seat of injury was a little behind the middle of the coronal suture, below the right parietal eminence. The wound inflicted was about an inch in length, extending backwards, and laying bare the bone. No hæmorrhage of any amount took place. After receiving the blow, he was able to go down some steps into his house, and his head was dressed from a dispensary opposite. No ill effects were felt until nearly a week after, the wound being then almost closed. He now noticed that his left thumb felt numb; but this he thought might be due to its having been struck while at work. On April 2, while sitting quietly by the fire, talking to some friends about resuming work, he suddenly felt his left hand become numb, the numbness extending all over his hand and up the forearm as high as the elbow. At the same time his lower jaw became "stiff" on both sides, and he found that he was unable to speak. He now took to his bed. Two days after his speech returned, but it was thick and indistinct. Sensation also returned, in some measure, in the lower jaw and fingers of the left hand.

On April 24 he presented himself among the surgical out-patients, and had his head dressed. The wound discharged thin pus, but free from all offensive smell. He had at this time recovered almost entirely the use of his left arm and hand, though he could not clench his fist or lift any heavy weight. Before the injury both hands were of nearly equal strength. On Thursday, May 4, he felt unwell on rising in the morning, and in the afternoon, after his head had been dressed, he came to see Dr. Cockle on account of the loss of power in his left hand and arm. It was then noted that he could clench his fist and use his hand, but not with full power, and evidently only after a strong effort of will. Upon leaving the hospital, tempted by the fine weather, he rode on the top of a tramcar to Highgate, and then went home. While on the car he felt "dizzy," and with difficulty restrained himself from vomiting. In the evening he made a light tea, and was sitting by the fire, talking to his wife, when he suddenly felt a "curious sensation" in his lower jaw, which became stiff; at the same time his speech became thick and blurred, and severe frontal headache came on. He went to bed, and vomited the food he had taken. He passed a fairly good night, but vomited again in the morning. The stiffness of his lower jaw subsided somewhat, but his left hand remained "limp and powerless." He stayed at home all day, taking fluid diet only; this was swallowed without difficulty; his speech, however, remained impaired.

May 6.—The headache became more severe, and he sent for a medical practitioner, who enjoined quiet, but did not prescribe for him.

7th.—He remained in the same state.

8th.—He was brought to the hospital in a cab, and vomited while sitting in the waiting-room. He was now admitted.

Condition on Admission.—The patient looks perhaps somewhat emaciated, but still is a fairly well nourished man, well built, though of spare make, with muscles of fair volume. His height is 5 ft. 8 in.; weight 10½ stones. Has no family history of importance. There is a linear scar over the left eyebrow, caused by some injury many years ago, but which was attended by no ill effects. The left side of the face looks flat and expressionless compared with the right. The facial muscles of expression on the left side are para-

lysed; also the occipito-frontalis. The conjunctiva of the left eye is congested, owing to exposure, from paralysis of the orbicularis palpebrarum, and a thin purulent discharge exudes from the margin of the lids. The pupils are equal, and react. The tongue, protruded straight, is moist, flabby, indented by the teeth, and covered with thick yellow fur. Breath fœtid. During mastication, food collects between the gums and cheek on left side, owing to paralysis of the buccinator muscle. Is unable to whistle, as the left cheek flaps. There is some difficulty in deglutition. The patient complains of frequent shooting pains across the frontal region. He has had no rigors or delirium. The speech is laboured and indistinct. The memory, though not defective, is sluggish. He can raise his left arm to his head, but cannot use the muscles of the forearm or hand without support from the right. The wound has still unhealthy edges; thick, tenacious, creamy pus exudes; rough bone can be detected with the probe.

May 11.—Complete loss of sensibility to pain in the affected arm from the fingers up to within two inches of the elbow-joint; loss of tactile sensibility from fingers up to middle of forearm; loss of thermal sensibility up to elbow. He is unable to raise his arm to-day as he did on the 9th inst.; he can only move it for about three inches by the action of the biceps. He was very restless during the night, but is now drowsy. Ordered a dose of calomel and jalap, which has not yet acted. Pulse 62, regular; respirations 17; temperature 98·4°.

May 12.—Since last evening, complete loss of control over bladder and rectum. The left leg feels numb and weak; bowels freely opened; does not sleep well: tongue very thickly furred; can only take fluid diet; pulse 70, regular, but very compressible; temperature normal. (The temperature during the whole time he was in the hospital remained about 98·6°, except on May 10, when it rose to a little above 99°.)

13th.—Very drowsy, and hard to rouse. Incontinence ceased yesterday about noon; urine, specific gravity 1023, alkaline, no albumen. Less frontal headache, but complains of acute pain in left upper arm when the forearm is moved.

14th.—Remains in the same condition; bowels acting freely.

15th.—Passed a good night, and is free from pain. Has again lost control over the sphincters, causing him great distress, being a man of very cleanly habits. The difficulty in deglutition is increasing; he can only take nourishment in sips, and this with great effort; is becoming more drowsy. Pulse 56, regular; respiration markedly puffing (*fumer la pipe*); apparently feels a finger placed on the left wrist, and tries to remove it with his right hand.

16th.—Very weak, semi-comatose; incontinence persists.

17th.—Profound coma. Two nutrient enemata administered; neither retained. He could be roused *once* sufficiently to recognise and reply by pressure of the hand, but was unable to speak. Pulse 104, very weak: respirations 37; temperature 97. About 6.10 the breathing became difficult, and he died in an hour.

Autopsy, twenty-four hours after Death.—On reflecting the scalp, a punctured wound, rather larger than a three-penny-piece, was seen, one inch and a half above the anterior inferior angle of the right parietal bone, and half an inch behind the coronal suture. The outer table had been perforated, and the inner table fractured into two portions, which were driven in and held separate by firm callus, so that only a narrow track, leading obliquely from before backwards, about the diameter of an ordinary probe, formed the communication between the external scalp wound and the deeper parts. Opposite to this depressed fracture was a corresponding laceration in the dura mater, and its ragged edges were floated up by subjacent pus, which, on slitting up the membranes, escaped to the amount of about two ounces, in a thick, curdy stream. It was of greenish-yellow colour, void of smell. The sinuses of the dura mater and the vessels of the pia mater were much congested, and the latter membrane, for some extent, adherent to the convex surface of the brain on both sides. The vessels over the island of Reil were greatly congested. There was further found the track of a puncture in the brain substance of corresponding size to that in the dura mater. This puncture implicated the foot of the ascending parietal and that of the ascending frontal convolutions, the tip of the second frontal convolution, and the fissure of Rolando between. The track leads into the cavity of an abscess the size of a hen's egg, which was lined with a thick and congested pyogenic membrane. The cavity of the abscess extends, inferiorly, through the outer fibres of the corpus callosum and grey matter of the island of Reil, to within a few lines of the right lateral ventricle, but without opening into it. The roof of the ventricle is here congested and stained. The abscess has undermined the operculum, destroyed the white, and rendered soft the grey matter. The inferior part of the middle frontal convolution at its termination was softened; also the grey substance of the first tempero-sphenoidal convolution adjacent to the island of Reil. The middle lobe of the right side was generally of creamy consistence and easily washed away. The base was apparently normal. The frontal lobe seemed ill developed. The fissure of Rolando was in the anterior half of the brain.

Remarks.—The case detailed would seem to offer several points of more or less interest in cerebral pathology—1. The comparative latency of symptoms for nearly a week after the occurrence of serious destructive lesion; 2. The absence throughout of all ordinary convulsive phenomena; 3. The abruptness of the initial signs, viz., numbness of the thumb, hand, and arm, and the recurrent spasm of the jaws; 4. The limitation, amount, and site of paralysis, admitting of explanation, for the most part, from the primary and principal seat of the lesion in well-recognised and definite cortical motor centres, with their medullary connexions in the right cerebral hemisphere.

Dr. Galezowski's Treatment of Purulent Ophthalmia of Infants.—This consists in touching, morning and evening, the surface of the conjunctiva with a pencil dipped into a solution of one-fourth of a part of nitrate of silver to ten parts of distilled water. Immediately afterwards a second pencil is passed over the conjunctiva after having been dipped in a saturated solution of chloride of sodium. This neutralises any excess of the nitrate which remaining on the conjunctiva might act as an irritant. This is the plan to be followed without regard to the abundance of the discharge, the intensity of the chemosis, or the bad state of the cornea; and during the six years that he has treated 400 such ophthalmias at the Clinique, Dr. Galezowski has not lost an eye. Five or six weeks are required to effect a complete cure; but when the discharge has diminished, and the chemosis has disappeared, the application need only be made once a day, then every other day, or twice a week.—*Progrès Médical*, June 24.

Anecdote of Nélaton.—Dr. Caradec gives, in the *Union Médicale*, July 2, the following anecdote of Nélaton as authentic:—A pet dog of the painter Meissonier one day broke one of his legs, rendered friable by over-feeding. Meissonier, desolated by such an accident to so beloved an animal, resolved to have recourse to the prince of surgical science, who at that time was Nélaton: but not venturing to declare the true motive, he telegraphed in hot haste for him as if to visit one of the family, then living at their charming residence at Bougival. Nélaton arrived, and entering the drawing-room, began talking on various topics with the master of the house, who, although he had painted many battles and carried off many victories, knew not how to face the present affair. At last Nélaton, becoming impatient at the delay, and knowing the value of his time, asked, to the great embarrassment of the painter, where the patient was. Presently the wounded brute was brought in on a magnificent cushion, howling with pain in spite of all the care taken. At so distressing a spectacle, Meissonier, forgetting everything else, exclaimed in agony, "Save him! illustrious master, save him!" Nélaton dressed the fracture, and the dog recovered: and shortly afterwards its master wrote a grateful letter to the great surgeon, thanking him for his kindness, and requesting to know his fee. Nélaton replied that when the painter came to Paris he could call upon him. This he soon did, and was producing his purse crammed with bank-notes, when Nélaton exclaimed, "Stop, sir! you are a painter, are you not? Just put a grey coating on these two panels which the cabinet-makers have finished!" This was indeed a delicate revenge; but which had the last word? Meissonier, who, going at once to work, at the end of a few days produced two of his *chefs-d'œuvre* on the panels.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

DESTRUCTIVE INFLAMMATION OF ELBOW FOLLOWING THE PRICK OF A NEEDLE—EXCISION—RECOVERY.

(Under the care of Mr. GODLEE.)

THE patient was a tailor, nineteen years old, who seven weeks previously had injured his elbow-joint by running a needle into it. Part of it was extracted the same evening by Mr. A. Curtis, of Alton, and another piece two days later. The elbow became much swollen, and abscesses formed, bursting in various places, and leaving unhealthy sinuses, which showed no inclination to heal. When admitted into hospital on January 21, 1882, the elbow was considerably swollen and red, with a sinus over each condyle of the humerus, and another rather above the internal condyle; the joint was almost completely fixed at an angle of 85°, and any attempt at passive movement caused considerable pain. The skin in front of the joint was involved in a cicatrix, the result of an old burn. The forearm was kept in the mid-position between pronation and supination. Considerable freedom of movement remained in the fingers, though the grasp of the hand was much weakened.

The patient was very pale and anæmic, but his appetite was good, and his temperature was only slightly above normal, being usually between 99° and 100°.

On January 26 the elbow was excised by means of two lateral incisions—one, three inches long, over the internal condyle in front of the ulnar nerve, which was at once turned back from its bed between the olecranon and the condyle; and the other, four inches long, over the external condyle, passing through the sinus in this position, and being prolonged so as to open the radio-humeral articulation. The soft parts, including the periosteum, were raised with a periosteum elevator, and the end of the olecranon and parts of the capitellum and the trochlear surface removed with the bone-forceps. The remains of the olecranon and the head of the radius were then sawn off, but as it was found impossible to turn the ends of the bones out through the external incision without stretching the parts more than seemed advisable, the blade of a Butcher's saw was passed from one incision to the other, and after fixing it in its frame, the end of the humerus was taken away with the greatest ease. Still complete extension was prevented by the cicatrix on the front of the limb, which necessitated the removal of another slice of the humerus; but even then this movement was not absolutely free. The operation was performed bloodlessly, and before the removal of the tourniquet a solution of chloride of zinc (forty grains to the ounce) was freely applied to the interior of the wound. On relaxing the band, free oozing occurred, but only one vessel required ligature. Iodoform was smeared over the surface, and a final application of chloride of zinc was made before applying the sutures. These were partly of stout silver wire and partly of carbolised catgut. The whole of the outer wound was brought together, but two large drainage-tubes were placed in the inner wound. The skin had been previously freely treated with carbolic acid lotion (one to twenty), and after the final application of the chloride of zinc the spray was used, it being hoped that the wound might have been rendered aseptic; but this was, as the event proved, not fulfilled, though the discharge at no time had an offensive odour. The limb was placed on an iron splint bent at an obtuse angle, after being wrapped in a thick covering of iodoform wool and salicylic wool. The temperature rose the day after the operation to 103·4°, and continued high in the evening for a fortnight, on one occasion reaching 105°, while in the morning it was usually about 100°.

On February 6 he had a severe rigor, but on the 8th the temperature fell almost to normal; and, with a few exceptions, it kept about 99° after that time. The high temperature at first, and whenever it occurred subsequently, evidently depended upon the fact of the exit for the discharge not being sufficiently free. On the eighth day the splint was removed, and passive movement was commenced; and this was continued at first every other day, and afterwards daily. There was a good deal of suppuration, especially at the outer part of the joint, in which position two or three counter-openings were made at different times; but at last, by April 22, after the escape of some minute sequestra, the wounds had healed, and the patient left the hospital. A few days later, the two sinuses which had been the last to heal, reopened, and remained open for a few days, but then rapidly closed, without the escape of any spicules of bone, and cicatrisation became firm and complete. The patient was last seen on June 20; he was then strong and well, and had very good movement in the elbow, extension being almost perfect, pronation and supination very good, but flexion could not be effected much beyond a right angle. He could feed himself, sew, and, in fact, use his arm well in following his usual occupation, and for almost any other purpose.

Remarks.—Excision of the elbow by two lateral incisions is easily accomplished, and has the great advantage that no wound or cicatrix is left over the point of the elbow. It was evidently unwise in this case to stitch up the outer wound completely, as the great cause of delay arose from the accumulation of the discharges in this situation. It may be fairly questioned whether it is advisable in any case to preserve the periosteum in performing this operation, the necessity for frequent passive motion involving a good deal of pain to the patient; and, even when a considerable amount of bone has been removed, as in the present case, great perseverance being required both on the part of the surgeon and the patient to prevent the occurrence of a stiff joint. It is worthy of remark at the present time, when the aspirator-needle is employed with such frequency and fearlessness, that the mere puncture of a needle, presumably not obviously dirty, can set up much extensive inflammation of a joint. It was, of course, not clean according to our modern ideas of cleanliness, but probably not less so than that of many an aspirator in every-day use.

LEEDS GENERAL INFIRMARY.

TWO CASES OF PSEUDO-HYPERTROPHIC PARALYSIS.

(Under the care of Dr. CLIFFORD ALLBUTT.)

[Reported by J. F. W. SILK, M.B., etc., House-Physician.]

Case I (*from the notes of A. G. Barrs, M.B., etc., late House-Physician*).—*Apparent Recent Onset—All Muscles of Body more or less Affected—Rapid Increase in Severity, followed by Gradual Slight Improvement.*

JAMES H., aged eight years, admitted September 23, 1881. Is one of three living children, but there have been three stillborn; in other respects family history negative. Patient commenced to walk when sixteen months old, but always walked badly and with toes turned in. The present condition is said only to have been noticed for eight or nine weeks.

On admission there is no visible increase or decrease in the size of any of the muscles, but there is decided weakness in the actions of nearly all, best seen when standing or walking. Measurement of legs: 19 in. above internal malleolus, left 11 in., right 11 in.; 7½ in. above internal malleolus, left 8 in., right (?)7½ in. Sensation is unimpaired; there is no undue mottling of the skin or other trophic change apparent. Plantar cutaneous and patellar tendon reflexes absent; there is no ankle-clonus. Standing: The feet are placed widely apart, the toes appear to clutch the ground; there is slight lordosis and throwing back of the shoulders, though this is by no means well marked. The hands are held away from the sides in an awkward and constrained manner. He is very easily pushed over, the erect posture being evidently maintained by a careful balancing of the trunk upon the hips, the body constantly swaying gently from side to side. Sitting: The slight lordosis entirely disappears. There is no hyper-extension of the foot. Movement: He cannot raise himself on his toes. His gait is shuffling and uncertain. On attempting to raise himself from the supine to the erect position, the following movements are made:—1. With difficulty he rolls over on to his face, supporting himself with his hands. 2. He gradually draws his legs beneath him and

extends them, and so assumes a position of "all fours." 3. He catches hold of some adjacent object—*e.g.*, a chair,—and so drags himself on to his feet; or places first one, then the other hand upon the corresponding thigh, and so climbs into position. His general health is good; temperature normal; no headache; no pain; no vomiting.

During his stay in the Infirmary he got rapidly worse, and on his discharge on November 1 was completely unable to walk.

He has been seen at intervals up to the present time, and by June 7 had decidedly improved. He was then able to walk. The plantar reflex had returned, but in other respects the objective phenomena had remained unaltered.

Case 2.—Apparent Onset after Injury—Legs mainly Affected—Loss of Galvanic Reaction.

Frederick H., aged nine years, admitted May 31, 1882. The father has been treated for fistula. There is an indefinite and doubtful history of phthisis on the mother's side, and an uncle is said to have died of "brain disease." Is one of a family of eight healthy living children (three boys and five girls), and there is no history of congenital disorder of any sort. Up to the age of four years he was, to all appearances, perfectly well and active. About that time he broke his left arm, and has never been well since. No particular symptoms have been observed beyond such as have been ascribed by his parents to general weakness; but among them may be noticed a tendency to fall down while walking, and inability to raise himself from the recumbent to the erect position, having to crawl upstairs on "all fours." His general health has remained very good, and the mother has herself noticed that there has been no emaciation at all corresponding to the degree of powerlessness. The boy is one of those clear-complexioned, delicate-featured children that one so frequently finds suffering from tubercular disease. The general conformation of the head is "rachitic," with high prominent forehead and flattened vertex. His intelligence and spirits are good and lively. Muscles of calf appear to sight and touch very fully developed and tolerably firm. Those of the arm are, if anything, smaller than usual, and somewhat flabby. Measurements: Arms—At insertion of deltoids, left 6½ in., right 6 in.; centre of forearm, left 6 in., right 6 in. Legs—Centre of thigh, left 10½ in., right 10¾ in.; centre of calf, 9½ in., right 9¾ in. Sensation is unimpaired; there is slight tendency to mottling of the skin over the legs, but not more, perhaps, than is seen in many healthy children with delicate, thin skins. Plantar and other cutaneous reflexes well marked. No patellar tendon reflex; no ankle-clonus. Muscles of calves react faintly to the faradic current, and not at all to the continuous; muscles of arms react to both. Standing: Assumes much the same position as in Case 1, but the feet are not placed so wide apart, the arms hang naturally by the side, there is no swaying movement of the body, and the balancing effort, though quite apparent, is less exaggerated. The increase in the lumbar curve is very marked. Movement: In walking, the legs are swung like a pendulum from the hips, the feet are thrown rather than planted upon the ground, the body is moved over and balanced upon each hip alternately, and thus a peculiar rolling appearance is imparted to the gait. Attempts to raise himself from the recumbent posture are carried out in much the same manner as in the previous case, but he not unfrequently, though with some effort, first assumes a sitting position.

Up to the present date the boy has remained in much the same condition; he was discharged on June 13, and is now attending as an out-patient.

IMPORTATION OF AMERICAN PORK INTO FRANCE.—This subject of discussion, which has now continued for nearly two years, has not yet been closed. The Chambers, upon the recommendation of the sanitary authorities (for, in truth, partly in consequence of the culinary habits of the country, trichinosis has never appeared in France) as to precautions taken at the frontiers to ascertain that the American certificates of "fully cured" were realities, had voted the reversal of the prohibition. The protectionists in the Senate, however, setting themselves up as the guardians of public health, have refused, by a slight majority, to pass the law. The pork is nevertheless bought in an underhand way, and is consumed in Paris without any ill effect.—*Gaz. Hebd.*, July 7.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JULY 22, 1882.

THE GENERAL MEDICAL COUNCIL AND THE MIDWIVES.

IT will be remembered that when the General Medical Council met for business this year a draft Bill for the Registration of Midwives in England and Wales was forwarded to the Registrar from the Privy Council Office, with a request that "the Medical Council would favour their Lordships with any remarks it might consider desirable to make thereon"; and that the Council appointed a Committee to consider and report upon the Bill. The Committee held three meetings, and presented a report, which was taken into consideration on the tenth day of the session of the Council, and occupied the whole of that day's sitting; though it might have been supposed that the matter would not require any lengthy discussion. For, as Mr. Marshall, the Chairman of the Committee, observed, in moving the adoption of the report, the subject of the draft Bill had been considered by the Council so long ago as 1877, when they came to the conclusion that there ought to be some legislation upon it. He pointed out that, after very careful and deliberate consideration of the question, the Committee had arrived at the opinion—embodied in their report—that the Council could hardly shirk the responsibility of taking some part in any measure for the registration of midwives; that they should not merely assent to legislation, but should agree as to how far they should be participators in any legislation on the subject. The Committee proposed that the Council should express their willingness to accept the responsibility of appointing a Midwifery Board, and of receiving reports from it, reserving to themselves the power of approving or disapproving the proceedings of the Board, and reporting the same to the Privy Council. The Midwifery Board to be so appointed would do all the work required to carry out the principles of the Act; and there was no other body that could do it so well. It had been suggested that the Examiners of Midwives might be appointed in the different local districts, but it seemed far better to take the appointments out of the sphere of local antagonisms, struggles, and jealousies, and place

them in the hands of a Midwifery Board appointed and supervised by the Medical Council. After some discussion, and especially a rather lengthy speech from Mr. Simon, criticising the "amateur Bill," and urging that the Council should only state its views, and suggest that the matter should be dealt with by Government itself when the time arrives for legislation, the Council resolved itself into a committee of the whole Council. Three resolutions were adopted, to the effect that it is desirable to provide means, under legal sanction, for giving credentials of qualification to competent midwives; and to provide that the lives of women in labour should, as far as practicable, be protected from the incompetent; that the essential conditions of any legislative enactment are the due training, examination, certification, and registration of qualified midwives, but that "women now practising as midwives may, if certified to be of good moral character, and to possess a competent knowledge and experience, be granted certificates under the enactment, and placed upon the Register"; and that "while all registered midwives should be entitled to certain privileges, they must also be subject to supervision and control."

It was next proposed—"That it may be made competent to the General Medical Council to delegate to the English Branch Council any functions or duties which, under the draft Bill, are proposed to be assigned to it, except that of making representations to the Privy Council." Some objections were raised to this: as, that such powers could not legally be conferred upon the Branch Council, and ought not to be conferred if they could be; and that there was a proposition to abolish the Branch Council. But Dr. Quain pointed out that the suggestion had been made as a matter of economy, and in order to save the General Council great trouble; that when the Bill passed the duties would be imposed upon the Branch Council by Act of Parliament; and that, should the Branch Council cease to exist, its place would be taken by a Divisional Board, or some body of that kind; and the resolution was agreed to. When Mr. Marshall moved that the section of the report defining the duties and functions to be assigned to the Branch Council (for a statement of which we must refer our readers to our report of the proceedings) should be adopted, Mr. Simon and Sir William Gull moved an amendment to the effect that, as regards this proposition, the General Council were "not prepared to accept the responsibility in unconditional and obligatory terms," but that they "would not object to be made, under permissive law, the *sanctioning medical authority* in the proposed matter; with duty, in that capacity, *to approve or disapprove* any scheme which the Obstetrical Society (or others) might bring before it for such purposes as are in question." He desired to make the Bill permissive only, and contended that the initiation of any measure connected with the organisation and examination of midwives should come from the outside, as, for example, from such bodies as the Obstetrical, or the Royal Medical and Chirurgical, Societies. The amendment provoked a prolonged discussion, but, fortunately, as we venture to think, did not meet with much support, and was negatived. Surely if any legislative measure is passed regarding a matter of such immense importance, and such urgency, as the education, examination, and registration of midwives, it should be anything but a permissive measure. Dr. Lyons and Mr. Collins then moved an amendment to the effect that the duties in question "should be discharged, as in Ireland, by the various teaching and licensing authorities, chartered lying-in hospitals, obstetric societies, and such like bodies," the Council accepting a general supervision of the work. But such a proposition would leave the work to a great multiplicity of bodies, and that in itself would be a great evil. This amendment also was rejected, and the original motion was carried. It was agreed that though the proposed Bill is limited in the first instance to England and Wales, there does not seem any objection to the subsequent extension of legislation for a similar purpose to Scotland and Ireland: and "that the Council, whilst offering no opinion as to the appropriate time for legislating on this subject, recommend that, in the event of a Bill being brought before Parliament, a copy of the measure, and notice of changes in it, should be communicated to the Council." The report of the Council in committee was then received and adopted by the Council. If the General Medical Council is to take upon its shoulders the examination, registration, etc., of midwives as well as of dentists, the proposed machinery of a responsible Board under the supervision and control of the Council will probably form the least objectionable means of carrying out such purpose.

DISPLACEMENTS OF THE UTERUS.

THERE are few conditions of the uterus of more importance, if the teaching of many prominent gynæcologists is to be accepted, than its displacements. They are accountable for dysmenorrhœa, sterility, and reflex symptoms too numerous to enumerate. There are instruments which have been devised, and largely employed, to correct them, which sometimes produce death, frequently prolonged illness, and, at best, entail multiplied manipulations of the genital organs for a long period—proceedings which sometimes produce moral effects even worse than the physical symptoms against which they are directed. Patients have been doomed to the bed or couch for months or years for the same end. And yet, notwithstanding the firmness of conviction which has made so many think themselves justified in recommending measures which, if not curative, are so hurtful, there have not been wanting physicians who have denied the whole theory upon which such treatment is based. It is obvious, therefore, that the settlement of this question is a matter of grave importance.

A paper was last year read before the Obstetrical Society of London by Dr. Herman, in which he stated, as the result of his investigations, that pronounced anteflexion occurs in nearly half of all nulliparous women, and that it is just as common in those who menstruate without pain as in those who menstruate with pain; and that painful menstruation is as common in those whose uteri are not anteflexed as it is in those whose uteri are anteflexed. If these assertions be correct, it follows that the connexion of anteflexion with dysmenorrhœa (the disease which is supposed to be its most marked and frequent consequence) cannot be one of cause and effect.

The last number of the *Archiv für Gynäkologie* contains a paper by Dr. Vedeler, of Christiania, based upon the same principle, but upon somewhat different lines. The principle we mean is that of ascertaining how often the so-called displacements occur in healthy women, before drawing inferences from the frequency of their occurrence in those who are suffering. Dr. Vedeler's researches embrace all the so-called displacements excepting inversion.

Dr. Vedeler defines the "so-called" normal position of the uterus as being that in which neither the anterior nor the posterior wall of the organ can be felt per vaginam; when this is the case, the axis of the uterus may be considered as that of the pelvic brim. By an unhealthy uterus (*kranken Gebarmutter*) he means that of a patient who complains of symptoms referable to the pelvic organs, or pointing to organic changes in those organs. Dysmenorrhœa he does not include; he promises hereafter to treat that symptom separately. Nor does he include diseases of the lying-in period, large intra- or extra-uterine tumours, or large para- or peri-metric exudations. But the smallest erosion, the

slightest perimetric adhesion, or the least painful sensation, sufficed to make him class the uterus as unhealthy. In those classed as healthy there was a complete absence of all symptoms.

Dr. Vedeler's researches embrace 3012 cases. Of these, the so-called normal position was found in 458 cases only, or 15 per cent.; anteversion in 361, or 12 per cent.; retroversion in 301, or 10 per cent.; anteflexion in 1648, or 54 per cent.; retroflexion in 226, or 8 per cent.; and prolapsus in 18, or 0·5 per cent. Anteflexion therefore, Dr. Vedeler remarks, is commoner than all the rest put together, and, if the term is to be used in its usual sense, should be called the normal position of the uterus.

Dr. Vedeler next gives us information as to the position of the uterus in its different functional conditions. The following is the table which he presents:—

	Virgins.	Nulliparæ.	Gravidæ.	Uni- and Multi-paræ.
"So-called" normal	7	11	4	22 per cent.
Anteversion . . .	7	9	10	18 ,,
Retroversion . . .	11	11	2	10 ,,
Anteflexion . . .	71	66	80	37 ,,
Retroflexion . . .	3	3	4	12 ,,
Prolapsus	—	—	—	1 ,,

The chief point which this table appears to show is, that child-bearing has the effect, in nearly half the cases, of straightening the anteflexed uterus.

We come now to the important part of the paper, that which bears on the question, do these so-called displacements cause any symptoms? Our author takes first virgins, with the annexed result:—

	Healthy.		Ill.	
Normal	27 =	7 per cent.	3 =	6 per cent.
Anteversion . .	33 =	8 ,,	2 =	3 ,,
Retroversion . .	45 =	11 ,,	9 =	17 ,,
Anteflexion . .	296 =	71 ,,	36 =	70 ,,
Retroflexion . .	13 =	3 ,,	2 =	3 ,,
	414		52	

Then follow nulliparæ, from whom the following figures are obtained:—

	Healthy.		Ill.	
Normal position .	47 =	9 per cent.	35 =	15 per cent.
Anteversion . .	34 =	7 ,,	33 =	13 ,,
Retroversion . .	47 =	9 ,,	33 =	13 ,,
Anteflexion . .	361 =	71 ,,	134 =	56 ,,
Retroflexion . .	17 =	3 ,,	8 =	3 ,,
	506		243	

Lastly, uni- and multiparæ—

	Healthy.		Ill.	
Normal position .	132 =	22 per cent.	202 =	23 per cent.
Anteversion . .	105 =	18 ,,	120 =	13 ,,
Retroversion . .	57 =	10 ,,	103 =	12 ,,
Anteflexion . .	221 =	37 ,,	334 =	38 ,,
Retroflexion . .	69 =	12 ,,	104 =	12 ,,
	584		863	

As we mentioned in the beginning, Dr. Vedeler reserves what he has to say upon dysmenorrhœa; but, with the exception of this symptom, his figures plainly show that, putting aside prolapsus and inversion, the other so-called displacements cause, as a rule, no disturbance whatever, subjective or objective: they are met with just as often in the perfectly healthy as in those suffering from uterine symptoms.

The position which the advocates of the mechanical system of uterine pathology assume to be the normal one, is shown to exist in only a small minority of cases, and to be, if anything, rather commoner in disease than in health. Anteflexion, which, according to one eminent authority, "rarely fails to entail trouble," Dr. Vedeler, as well as others, finds present in the majority of healthy young women.

With regard to this affection we have information as to the symptom which Dr. Vedeler omits, viz., dysmenorrhœa, which has been shown, so far as statistical evidence can prove the point, to depend in no way upon anteflexion.

If it were only maintained that the ill consequences attributed to displacements were their occasional and rare results, of course figures such as those we have quoted would not prove the contrary. But the very reverse is held. The displacements are held to be the keystone of uterine pathology; the *fons et origo* of most uterine symptoms; conditions which only exceptionally exist without causing suffering. Against such a view the statistics we have put before our readers are absolutely conclusive. The broad fact, that the displacements are quite as common in the healthy as in the sick, must be explained or shown to be erroneous, otherwise it is fatal to the mechanical system of uterine pathology. That which is most surprising is that, notwithstanding the many years that this theory has been before the profession, has been advocated, discussed, and practised, no one till quite recently should have ever thought of investigating the primary and fundamental question raised in the researches to which we have referred—the question upon which depends the whole theoretical edifice.

MEDICAL SCIENCE AND MEDICAL ART.

THE three lectures lately delivered, under the Arris and Gale bequest, in the theatre of the Royal College of Surgeons, by a clever professor of physiological learning, were inspired by a motive most praiseworthy in itself. The sympathies of the whole profession are sure to go with anyone claiming liberty for physiologists and others—even if for some of them it should remain only an abstract right—to resort to experiments whenever experiments seem to be required. Let us not be judged to be wanting in that sympathy if we decline to dance to the particular measure of the physiological piping, and if we decline to accept, without some reserve, all the fine things that were said of contemporary practice and what it owes to contemporary science. This is pre-eminently the scientific age that we are living in, but it is not in any especial way the age of dispassionate fairness, moderation, and temperateness. Exaggeration, one-sidedness, harping on a single string, are as common now as ever they were. The necessity of meeting the anti-vivisectionists with appropriate professional spirit has led to some rather singular discoveries of the absolute dependence of the medical art upon experimental physiology. It is a curious result of rapid scientific progress, and a very awkward anomaly in human relationships, that a young man of five-and-twenty is likely to have, on the whole, better scientific information than a man of twice his years. We may still learn from the wisdom of age, but we get the most authentic information from the science of youth. Things have come to such a pass with us, that an acquaintance with any of the newest pieces of *technique*—and we fully admit their value—entitles some to a hearing which, in a less technical age, they would never have been entitled to through their intellectual weight. The consequence is that the tone is set by those who are neither the most thoughtful nor the most experienced in the profession, and that the Hippocratic tradition is for the moment forgotten. The modern advance is so unique in its rapidity, so distinctly epoch-making, and so thoroughly track-cutting, that the historical continuity is hardly worthy keeping up. What may have been before the Flood has come to be voted more curious than profitable. The exercise of the historical imagination is never an easy thing, and few will take any trouble over it in the flush of daily and weekly novelties. It is, on the whole, easier to dismiss

Paracelsus as an "arch-quack" than to put yourself in his place; it is not difficult to gain a victory over the profound nonsense of philosophical medicine, just as certain persons once vanquished Berkeley—with a grin. Whoever leans to the opinion that the introduction of machinery and steam-power into physiological laboratories is an unapproached, if not unapproachable, achievement of the intellect, is not likely to enter with much heartiness, or with any degree of success, into the point of view of Hippocrates or of Sydenham.

It will raise a clear issue and save periphrasis if we take two things notable in Hippocrates, and set them side by side: one is his fine practical wisdom; and the other is his indifference, and more than indifference, to anatomy. His words on the latter subject are: "There are certain physicians and philosophers who say that it is impossible for anyone to know medicine who does not know what man is, and how first he was made and fashioned; but, in my view, the statement applies less to the medical art than to the pictorial." The passage is quoted by Sydenham, naturally with very qualified approval; the physician should certainly attend to the structure of the human body, so that he may have true ideas both of the nature and cause of diseases. But Sydenham goes on to show that he could absorb the learning of Vesalius and Harvey without expelling the doctrine of Hippocrates. It must be confessed, he says, that in all the acute diseases—and these are two-thirds of disease—and in most of the chronic, there dwells an inscrutable something, a certain specific property, which neither inspection of the human body, nor contemplation thereon, have ever been able to lay bare or drag into the light; and in his opinion "the divine old man" merely wished to warn against too much attention to the dissection of the dead, and too little observation of the natural phenomena, the *juvantia* and the *lædentia*. When Sydenham confesses that there is, especially in acute specific diseases, a *divinum quid*, he is doubtless thinking of that inscrutable something which binds together all the pustules of small-pox into a mysterious unity, and links a remittent fever to the pustular exanthem. It ought to be kept in mind that he was no mystic, whether by disposition or from education; he was at Oxford when the philosophy of Descartes was coming into vogue, and, like his friend Locke, he probably felt the charm of a system which compared the human body to a watch. But it is to Sydenham that we owe the first use of the term "the natural history of disease," and it was he who made the first sober and steady applications of the profound idea of Paracelsus, that there are species of disease, and that they may be observed, studied, and described, after the manner of the botanists. This is what came to be known later as the ontological view of disease, and it was against the conception of diseases as things in themselves that the "physiological medicine" of Broussais directed its main assault. It was mainly to combat the same teaching of disease, in the school of Schonlein, that one of the most vigorous journalistic enterprises of its day, the *Archiv für physiologische Heilkunde*, was started in 1842 by the late Professor Wunderlich.

If the natural-history view of life and diseased life can only justify itself as a scientific method, there is certainly much to be said for it from the side of practice. It would then indeed be the true reconciliation of medical art with medical science, the more excellent way of enlightened empiricism. The better knowledge of structure and function, which is the heritage of every student of this generation, is something to be thankful for; but the practising part of the profession will do well, like the contemplative Jaques, to "give heaven thanks, and make no boast of it." Has the natural-history method, the method that the exigencies of daily duty force upon the practitioner, no scientific value or usefulness of its own? We may take courage in remembering that it was the method of Darwin. The great author of the "Origin of Species" used the scalpel comparatively little, and the microscope less; but he had a profound and intimate acquaintance with the habits of plants and animals, with their external characters and markings, with their complete natural history. Diseases, no less than living things, have a certain natural history, a certain typical sequence of phenomena, and it is a very old and well-worn commonplace to say that they are the best practitioners who are most familiarly and intimately acquainted with those aspects of disease. It requires more boldness just at present to predict for that view of disease a success in science, as it already owns a success in practice. More especially in those acute, or at any rate specific, cases which, as Sydenham says, are two-thirds of disease, the natural-history method has a future before it. Unless we greatly err, the solution of the problem of specific fevers and infections rests much more with those who are observing their external characters, their geographical distribution, their history, and their natural history, than with those who are looking for their essence, as it were, at the bottom of the crucible. Our voice shall never be joined to those who decry experiment, and as for anatomy and morbid anatomy, no one nowadays can be even suspected of ignoring their value. But it does not seem amiss that we should here say a word for that which was excellent in the pre-scientific age, in the *Saturnia regna* of the medical history, and for that which must at all times be the chief intellectual exercise for the majority of our profession.

THE WEEK.

THE DEATH OF DR. ALEXANDER SILVER.

We have with very deep regret to record that Dr. Alexander Silver, who had for many years been one of the most able, trusty, and faithful members of the staff of this journal, died on Sunday last. It had been known to many of his friends that for some years Dr. Silver had suffered greatly from more or less frequent, and more or less severe, attacks of gastric irritation; but during the last three or four months he had had better health than usual. Just lately, indeed, he had been particularly well; and when we parted from him, after arranging the last week's number of the journal, we little thought that we had shaken hands with him for the last time. But a few hours afterwards, however, he was attacked with vomiting, and he died on the 16th inst., at the early age of forty-one. He was a true and gifted colleague and co-worker, and his early death is a great loss to us and to the journal. A short notice of his life will be found elsewhere in these columns.

TOPICS OF THE DAY.

We mentioned last week that Mr. Crossman had put forward an appeal on behalf of a Horse Ambulance Society for London. Since then a meeting, presided over by this gentleman, has been held at the Charing-cross Hotel, in furtherance of the same object. By way of report, the Chairman read out the steps he had taken on behalf of the committee appointed at the public meeting held on February 2 last, under the presidency of the Duke of Cambridge, at the United Service Institution. It was at first thought, he explained, that the whole matter had better be left to the hospitals themselves, as they would be the best centres of action for the various metropolitan districts. We pointed out at the time that the hospitals possessed neither funds for this purpose nor the requisite organisation; and we urged that the ambu-

lance must be in charge of, and under the control of, the metropolitan police force. These views have been accepted, and, with the sanction and support of the First Commissioner, it has been agreed to make a centre of the chief police-station in each division, connecting it by telegraph with all the others in the division. Notice should be given throughout the division that an ambulance waggon will be found at the chief police-station, at the disposal of persons of every class of society, for extreme and difficult cases of illness (not infectious) or accident requiring, on a medical practitioner's order, removal to a hospital or elsewhere. All expenses incurred by the police in this duty would be defrayed by the Society. For a fair start £1000 would be required, namely, about £720 to set on foot a dozen fresh centres, and the rest as a working balance. Sir E. Henderson, who was present, repeated the assurance of his readiness to give the movement every assistance in his power. He thought the horse ambulances were simply invaluable, and that there should be little difficulty in obtaining from the public the funds necessary to start the Society. Mr. Timothy Holmes and Dr. Howard, of New York, also spoke warmly in favour of the project, and the report was unanimously adopted.

A general meeting of the governors of the Princess Frederica's Convalescent Home at Hampton Court, for married women after childbirth, was recently held at the house of the Hon. Alan Egerton, in Seamore-place, Prince Leopold presiding. The Princess Frederica was unable to be present owing to ill-health, but in addition to the vice-chairman, the Hon. Alan Egerton, several others of the governors attended. The balance-sheet showed that the charity had a balance in hand amounting to £1000, of which sum £1200 is placed on deposit. The report announced that the home was now full, and that the work was being carried on in a satisfactory manner. On the motion of Canon Duckworth, seconded by Mr. Egerton, it was resolved to invite the clergy to give offertories in support of the home, and that letters of admission should be supplied in proportion to the offertories received. The report and balance-sheet were adopted, and thanks were awarded to the honorary officers for their work during the year, and to Prince Leopold for presiding.

Dr. Danford Thomas recently held an inquest at the Islington Coroner's Court on the body of a child aged two years and two months, the son of Alfred Askew, of Beaconsfield-buildings, Caledonian-road. The evidence showed that the deceased had been suffering from pain in the head, and his mother took him to the "dispensary" of a man named Greatorex, in the Caledonian-road, fully believing him to be a duly qualified medical practitioner. This belief was also shared by the father of the child. Mr. Greatorex agreed to see and supply the deceased with medicine for 3s. 6d. per week, and did so, seeing him twice when alive, and once after death, when he signed a certificate, affixing to his name the letters "L.A.M.D." This was in due course handed to the Registrar, who, having his suspicions, called upon Mr. Greatorex, when the latter admitted that he was not qualified, and explained that the affix to his name meant "late of the Army Medical Department." The District Registrar reported the case to the Registrar-General, by whom a prosecution is to be instituted against Greatorex for a breach of the Registration Act. Dr. Pepper, of Gower-street, in conjunction with Dr. Slater, of Barnsbury, having made a post-mortem examination, said death resulted from asphyxia from convulsions, inflammation of the lungs, and irritation of the stomach consequent upon improper feeding. "Acute hydrocephalus" was mentioned in the certificate as one of the causes of death; but the post-mortem examination revealed no signs of this disease. It was probable that no properly qualified ma could have saved the child's life. Greatorex said he had been in the Army Hospital Corps; he described himself as a surgeon in order to obtain a livelihood. The Coroner commented in severe terms on his conduct; and the jury returned a verdict in accordance with the medical evidence.

During the month of May last, according to the return of the Registrar-General for Scotland for that period, there were registered in the eight principal towns of the North British district the births of 4222 children, and the deaths of 2460 persons. Allowing for increase of population, the latter number is 226 under the average for this month during the last ten years. The annual mortality during May was at the rate of 15 deaths per 1000 persons in Leith, 19 in Dundee, 22 in Edinburgh and in Aberdeen, 24 in Paisley, 25 in Greenock and in Perth, and 28 in Glasgow. Of the 2460 deaths, 1045, or 43 per cent., were those of children under five years of age. The miasmatic order of the zymotic class of diseases proved fatal to 382 persons, and constituted 15·5 per cent. of the whole mortality. This rate was, however, considerably exceeded in Edinburgh, Aberdeen, and Paisley. Whooping-cough was the most fatal epidemic, having caused 120 deaths, or 4·9 per cent. of the whole mortality. Fever caused 44 deaths, of which 5 were tabulated as typhus, 37 as enteric, and 2 as simple continued fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 506, or 20·6 per cent. Those from consumption alone numbered 331, or 13·5 per cent. Four males and one female were aged ninety years and upwards, the eldest of whom was formerly a labourer, and was ninety-eight years of age.

Two cases of sudden death which have recently occurred in the neighbourhood of the Strand should, if anything can, stimulate the parochial authorities of that locality to take steps for providing a fit and proper mortuary for the reception of all such cases. In the first instance a gentleman who had gone to the new Law Courts on business fell senseless. He was carried into a room, and medical assistance procured, but life was pronounced to be extinct. Application was immediately made to the Vestry authorities for permission to remove the body to the mortuary adjoining St. Clement's Church, but the sanction was peremptorily refused, on the ground, it is reported, that the mortuary was "full of rubbish, and there would be no room for any more." The beadle of St. Mary-le-Strand was then applied to, but that official was powerless to act, inasmuch as his mortuary lay beneath the church, and the parishioners had complained that while taking part in the services of the church the stench from the dead bodies was intolerable. In the end, notwithstanding the protestations of the Law Courts officials, the body had to be left in the room to which it had been taken, there to await the coroner's inquiry. In the other case a man was found dead in his bed in a common lodging-house in Portugal-street, Lincoln's-inn-fields. Although the coroner's officer was immediately communicated with, he was quite powerless to remove the body, as there was no mortuary at his disposal, and it had consequently to remain there until the necessary inquiry had been held. These cases are stated to be samples of others continually occurring in the neighbourhood of the Strand, and we shall not be accused of making a too strong assertion when we say that such a state of things is a crying scandal.

The agitation for the introduction of electric lighting is more general than might have been imagined. At a recent meeting of the City Commissioners of Sewers, in dealing with this subject, Mr. Moore moved—"That it be referred to the Streets Committee to consider whether steps should not be taken to provide that all arrangements in regard

to electric lighting within the City, whether of public ways or private premises, necessitating interference with the pavements, be undertaken by the Commission." This was agreed to. It was likewise referred to the same Committee to consider a memorial of merchants and traders, asking that any system of electric lighting adopted by the Commissioners might be utilised for the convenience and benefit of private houses. The Streets Committee, reporting on their proceedings relative to the applications made for an extension of the experiments in electric lighting, submitted an abstract of tenders received, and expressed an opinion that it was not desirable to proceed further until Parliament had detailed the principle upon which electric lighting generally shall be permitted. The tenders for applying the electric light to the four districts into which the principal City streets had been mapped out, varied from £9500 to £17,000. The gas hitherto consumed in the whole of these districts for lighting purposes cost only £1850 per annum.

As a sequel to the information which has already been furnished as to the number of bodies found in the Thames, a return has been presented to Parliament by the First Commissioner of Police, showing the number of human corpses found in the Regent's Canal and the river Lea, within the Metropolitan Police district, during each of the five years ended December 31, 1881. In the Regent's Canal there were found, in 1877, 42 bodies; in 1878, 56; in 1879, 46; in 1880, 42; in 1881, 40—total, 226. In the river Lea there were found in the same years respectively, 47, 49, 55, 39, and 46 bodies—total, 236. Of the 462 bodies thus found, verdicts of accidental death were given in 157 cases, of wilful murder in 7 (all infants under one year old), of suicide in 82, and open verdicts were returned in 216 cases, no opinion being expressed by the juries as to the cause of death. Of the 462 persons drowned, 111 were females; 45 of both sexes were under five years of age.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the quarterly meeting of the Council of the Royal College of Surgeons, held on Thursday, the 13th inst., Mr. John Croft, who had been elected into the Council on the previous Thursday, took his seat. The Minutes of the previous meeting were read and confirmed, with the exception of the portion relating to the requirement of only one course of lectures on anatomy, the question of the confirmation of this portion being deferred till a further report upon the subject shall have been received from the Nomination Committee.

Mr. Thomas Spencer Wells, Surgeon to the Queen's Household, was elected President of the College, in the vacancy caused by the retirement of Sir Erasmus Wilson; and Mr. John Marshall, F.R.S., Senior Surgeon to University College Hospital, and Mr. John Cooper Forster, formerly Surgeon to Guy's Hospital, were elected Vice-Presidents for the ensuing year. Messrs. J. Hutchinson, W. H. Flower, and W. K. Parker were re-elected to their respective Hunterian Professorships; and Mr. H. Power was appointed Arris and Gale Lecturer on Anatomy and Physiology for the ensuing year. Mr. T. M. Stone, whose service at the College began, in the post of Assistant-Librarian, so long ago as 1832, had asked, on account of the state of his health, that he might not be nominated for re-election; and it was referred to the President and Vice-Presidents to consider the matter and report thereon to the Council.

A memorial was received from the teachers of anatomy, objecting to the resolution of the Council that attendance on one course only of lectures on anatomy shall be required from candidates for the membership of the College. The memorial was read, and referred to the Nomination Committee for consideration and report.

A letter was read from the Medical Committee of St. Bartholomew's Hospital, objecting to the establishment of a compulsory examination in elementary anatomy and physiology, to be held at the end of the student's first year, and to be conducted by the teachers at the respective medical schools. The letter was referred to the joint Committee for consideration and report.

THE METROPOLITAN BOARD OF WORKS.

At the last meeting of the Metropolitan Board of Works, amongst other business brought forward, a report was presented from the Works and General Purposes Committee on the reference by the Board as to the constitution of the Royal Commission issued for the purpose of inquiring into, and reporting upon, the system under which sewage is discharged into the Thames by this Board; submitting a report by the engineer, with extracts from evidence, and statements by Mr. Abernethy and Dr. Williamson, two members of the Commission, showing the decided opinions entertained by them in opposition to the Board's main drainage outfalls; and recommending that a letter be addressed to the Home Secretary, calling his attention to these facts, and asking whether, under the circumstances, he would be willing to reconsider the constitution of the Commission. Mr. Selway, in moving the adoption of the report, explained at some length that, as Mr. Abernethy and Dr. Williamson had already publicly stated what they considered ought to be done, they must therefore have made up their minds upon a particular line of action, without hearing all the facts of the case. The report was eventually adopted, with only one dissentient. A letter was received from the Town Clerk of the Corporation of London, stating that the Court of Common Council had referred a petition of the Paddington-park Committee, with regard to the Paddington-park scheme, to the Coal and Corn Finance Committee, and requesting the Metropolitan Board to favour them with the following information—viz., whether they adhere to their promised grant of £80,000; whether they would consent to the Corporation increasing their promised contribution of £5000 out of the grain duty; also if, in the event of the necessary land for the park being purchased through the efforts of the Corporation, the Board would undertake to lay the same out, and take it under their charge. This matter was ultimately referred to the Works Committee for consideration.

PORRO'S OPERATION.

On Wednesday, July 12, Mr. Knowsley Thornton performed Porro's operation at the Samaritan Hospital. The patient was thirty-eight years of age, had been married twelve years, and in early married life had had a miscarriage; she had been separated from her husband until within the last six months, and shortly after he returned to her she became pregnant. So far as she could tell, she was about at the fourth month, and had not quickened. She had suffered from abdominal tumour for some six or seven years, but it had not troubled her till she became pregnant. It then began to grow very fast, and on admission into the hospital it filled the abdomen, pressing against the ribs above, and pushing the pregnant uterus down into the pelvis, so that a large portion of the fœtus was below the level of the cervix, in the hollow of the sacrum. She was only moderately easy when in bed, and even then had considerable abdominal pain and occasional difficulty in breathing. She was in a weak and anæmic condition, and able to take but very little food. Mr. Thornton came to the conclusion that pregnancy could not go on; and being doubtful whether the tumour was a dermoid or solid ovarian, or a fibroid outgrowth from the uterus, determined to open the abdomen, perform ovariotomy if it was ovarian, and Porro's operation if it proved to be a sessile

fibroid. It was found to have a sessile base, and an elastic ligature was first passed round the neck of the uterus and the pedicles of both ovaries temporarily, and the uterus (with fœtus, both ovaries, and the tumour) cut away. No blood was lost, except what was in the tumour, etc. A large mass of adherent omentum was ligatured off, and a Kœberlé's wire serre-nœud was then applied on the distal side of the elastic ligature, and the latter was removed. The stump was fixed in the lower angle of the wound, and treated with solid perchloride of iron. The operation was strictly Listerian in every detail. There was little, if any, shock, and the patient is now convalescent. The temperature has only once been up to 100·2°; the pulse on the second night to 108. The wound has been dressed twice under the spray, and was found dry and sweet. The patient sleeps and eats well, and has (one week from operation) a temperature of 98·4° and pulse 84. The bowels have acted well after enema.

FATAL ACCIDENT TO A MEDICAL STUDENT.

A LAMENTABLE accident occurred in one of the wards of the Rotunda Lying-in Hospital, Dublin, shortly before midnight of Wednesday, July 12, and resulted in the death of Mr. John George Ryall, a student, who was at the time attending the practice of the Hospital. Mr. Ryall had been showing a six-chambered revolver, which he had recently purchased, to another medical student, and had replaced it—somewhat hurriedly, apparently—in his trousers pocket. Instantly there was a report, and the unfortunate gentleman rose from his chair, exclaiming that he was shot. Terrible internal hæmorrhage occurred, causing death in a very short time. Subsequent examination showed that the bullet entered above the right groin and travelled in an upward direction, wounding some of the large abdominal vessels. There was scarcely any external hæmorrhage.

THE MEDICAL ACT (1858) AMENDMENT BILL.

THE reports of the proceedings of the House of Commons on Monday and Tuesday in the present week contained certain brief announcements that must have startled medical authorities and medical men who had not taken careful note of all the Bills introduced into the House. It was reported that, on the 17th and 18th inst., "the Medical Act (1858) Amendment Bill" had been read a second time, had passed through Committee unopposed and without alteration, and had been read a third time, and passed. The vast majority of the profession were, we have no doubt, quite ignorant of the fact that any "Medical Bill" of any kind was before Parliament; and, considering what has been the fate of nearly all Medical Act Amendment Bills of late years, the news that one had just passed through the House of Commons, without any opposition whatever, must have been not a little surprising. The Bill in question is, however, a very innocent little Bill, consisting of one clause only, the purpose of which is to enact that the Royal University of Ireland shall be empowered to choose one person to be a member of the General Medical Council, in place of the Queen's University in Ireland, which has been dissolved. The first appointment is not, however, to be made by the new University till the existing appointment by the late Queen's University "shall expire and cease to have effect."

THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THE annual general meeting of the Ophthalmological Society was held on Friday, the 7th inst., and was presided over by Mr. Critchett, in the unavoidable absence of Mr. Bowman. The auditor's report and Mr. Critchett's address showed that the Society is in a flourishing condition, financially and otherwise. Much interest has been taken in, and support been given to, the Society by medical men practising in the colonies, and in order to remove special difficulties in the way of their becoming members of it, Rule 4 was altered by the addition of the following words:—"If any candidate who is legally qualified to practise in India or the colonies be not personally acquainted with three members of the Society, the signatures, from personal knowledge, of teachers in the medical school at which he was educated shall be accepted instead of the signatures of the same number of members of the Society." The following gentlemen were elected to fill the various offices of the Society for the ensuing year:—*President:* William Bowman, F.R.S., LL.D., etc. *Vice-Presidents:* George Critchett; W. H. Broadbent, M.D.; C. E. Fitzgerald, M.D., Dublin; Henry Power; Frederick Mason, Bath; Augustin Prichard, Clifton. *Treasurer:* J. F. Streatfeild. *Secretaries:* John Abercrombie, M.D.; E. Nettleship. *Other Members of Council:* James E. Adams; Edwyn Andrew, M.D., Shrewsbury; W. A. Brailey, M.D.; R. Brudenell Carter; W. R. Gowers, M.D.; R. Marcus Gunn; C. Higgens; George Lawson; Stephen Mackenzie, M.D.; Charles Macnamara; J. Vose Solomon, Birmingham; T. Shadford Walker, Liverpool.

THE MILK OF TUBERCULOUS COWS.

IT is a peculiar difficulty in dealing with tuberculosis of the cow (distinguishing that disease from most other diseases) that the animal, even when far advanced in it, may continue to recommend herself to the dairyman as a good milker. It is said, indeed, that at a certain stage of the disease the milk becomes more abundant; it is, however, more watery, often poor in fatty constituents, and, according to a very old analysis made for Dupuy, it contains six or seven times the ordinary proportion of phosphate of lime. Professor Walley, of Edinburgh, addressing a veterinary association in a northern county (*Veterinarian*, July, 1882), related the following instance of the milking qualities of a cow well advanced in tuberculosis:—"During the course of my periodical inspection of the Edinburgh byres, I observed in one of them a short-horn cow showing unmistakable symptoms of advanced pulmonary tuberculosis, with extensive tubercular mammitis. I asked incidentally if the cow gave any milk, and was told that she gave three quarts at each meal; and on trying the udder I found that it was then tolerably full. A few days after I again visited this cow, and found her almost *in extremis* from dyspnœa, induced by concurrent emphysema pulmonum, still giving, however, a large quantity of milk. The owner, acting on my advice, had her slaughtered; and the autopsy revealed almost universal tubercular invasion of both lungs, and of the left half of the udder." Cowkeepers are not, as a rule, an educated body of men, and it will naturally be a hard thing for them to believe that a cow giving six or eight quarts of milk a day can have anything very much the matter, or can be even thought of as a source of danger to the milk-drinker. But those who take the most optimist view of the tuberculous cow will draw the line at tubercular disease of the udder.

ACADEMIE DE MÉDECINE.

AT the election for a member of the Section of Medical Physics and Chemistry, to fill the vacancy left by the death of M. Briquet, the Section sent up the list of candidates as follows:—1st, *ex æquo*, MM. Gariel and Javal; 2nd, M. Bouchardat; 3rd, M. Hardy; 4th, M. Onimus. M. Gariel (who is one of the secretaries of the French Association for the Advancement of Science) was chosen by the votes of fifty-seven of the sixty-eight Academicians present.

THE PARIS WEEKLY RETURN.

The number of deaths for the twenty-seventh week of 1882, terminating July 6, was 1041 (522 males and 519 females), and among these there were from typhoid fever 35, small-pox 22, measles 28, scarlatina 6, pertussis 5, diphtheria and croup 46, dysentery 3, erysipelas 12, and puerperal infections 3. There were also 49 deaths from tubercular and acute meningitis, 180 from phthisis, 25 from acute bronchitis, 64 from pneumonia, 102 from infantile athrepsia (35 of the infants having been wholly or partially suckled), and 47 violent deaths (32 males and 15 females). The number of deaths registered is slightly inferior to the mean of the preceding four weeks. Compared with the week before, there were only 35 deaths from typhoid fever, instead of 50; but those from small-pox increased from 8 to 22, from measles from 22 to 28, and from erysipelas from 5 to 12. The number of deaths from measles still thus continues very large, so that the epidemic which prevailed with such intensity in May has not diminished to the extent that might have been expected. Moreover, several of the deaths entered under the head of organs of respiration are really due to the catarrhal bronchitis supervening on measles. The births for the week amounted to 1119, viz., 545 males (412 legitimate and 133 illegitimate) and 574 females (428 legitimate and 146 illegitimate): 94 infants were either born dead or died within twenty-four hours, viz., 50 males (41 legitimate and 18 illegitimate) and 35 females (24 legitimate and 11 illegitimate).

THE CHAIR OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

We are glad to report that Mr. John Chiene was elected on Monday last to the Chair of Surgery in the University of Edinburgh, in room of the late Mr. Spence. The appointment gives, we believe, great satisfaction to the majority of the profession in Edinburgh, and is unquestionably a very excellent one, though, as unquestionably, others among the candidates were well fitted to fill the vacant office. It is said that Mr. Chiene's candidature was especially popular with the young men, and that of the present and past University assistants from 1875 to 1882 a very large majority desired Mr. Chiene's success.

CERTIFICATES OF DEATH FROM LYING-IN CHARITIES.

It should be thoroughly understood by students engaged in attending poor women in their confinement, in connexion with the various metropolitan hospitals to which medical schools are attached, that in the event of the children not surviving, whether from premature birth, low vitality, or any natural cause, their certificates, however well intended, are valueless in point of law. When there is no opportunity of the infant being seen by the qualified obstetrician, it is infinitely better that the death should be notified to the Registrar by the nearest relations present at the death, as the Registrar is then at liberty by the Act to register the death as uncertified, and the friends may proceed with the interment of the body. Should the Registrar have reason to suppose that there has been any violence, or should there be any suspicious circumstances connected with the case, he is always at liberty to postpone the burial till he has consulted with the coroner on the subject. In the cases referred to last week, which were the subjects of an inquest by Mr. Payne, the City Coroner, the facts were submitted to the Registrar-General, who failed to discover, notwithstanding the finding of the jury and the remarks of the Coroner, that anything had been done contrary to the Act for which the Hospital authorities were responsible. In the face of illegal certificates which have been given by unqualified practitioners, and also by medical men who had never seen the patients, it is but natural that the local registrars should be on their guard against deception; at the same time, when the facts attending the birth and death of the child are clear to everyone, it seems harsh that the friends and relations should be put to so much anxiety and delay for want of a medical certificate, which, under the exceptional circumstances mentioned, the law permits them to forego.

COLLEGIATE FINANCES.

From the annual report of the receipts and expenditure of the Royal College of Surgeons (from Midsummer-day, 1881, to Midsummer-day, 1882), it appears that the former amounted to £18,578 2s. 11d., derived principally from fees paid by students on admission to the various examinations. Commencing with fees paid at the preliminary examinations for Membership and Fellowship (now, unfortunately for the College, brought to a close), we find nearly a thousand pounds, viz., the respectable sum of £996; fees on primary and pass examinations for diploma of *Membership*, £13,191 3s.; for primary and pass examinations for *Fellowship*, £1172; for diploma of Dental Surgery, £294; making the satisfactory total of £15,653 3s. Fees paid by Members of the College on admission to the Fellowship, which formerly realised such large sums, now appear to yield only £52 10s.; fees paid on admission to Council and Court of Examiners, £63. The receipts from investments are very satisfactory, as the rents from Nos. 37, 38, and 43, Lincoln's-inn-fields, adjoining the College, produced £1523 14s. 6d. The expenditure during the same period amounted to £17,272 2s. 5d., the largest item being fees paid to members of the Court and Board of Examiners and Council, viz., £7094 8s. 6d. The next largest amount is in salaries and wages for the large staff in the three departments (Secretarial, Museum, and Library), viz., £4122 15s. Taxes, rates, diploma-stamps, £1525 10s. 8d. Under extraordinary expenditure appears the sum of £278 10s. 8d. on account of the *conversazione* to the members of the International Medical Congress. There appears the respectable balance at the bankers of £2158 19s. 7d. Altogether, the report is very satisfactory.

THE TREATMENT OF PUERPERAL CONVULSIONS BY DIAPHORESIS.

Dr. Carl Breus, assistant in Professor G. Braun's gynæcological clinic in Vienna, contributes a paper on the above subject to the last number of the *Archiv für Gynäkologie*. The method of treatment he has adopted is that of Liebermeister, which consists in first putting the patient into a hot bath, the temperature of which is at first about 38° centigrade (100·4° Fahr.), and is gradually raised as high as the patient can bear it. After the bath, in which the patient remains about half an hour, she is wrapped, first in a sheet, and outside that several thick blankets, and left so packed for two or three hours. During the bath a profuse perspiration usually breaks out over the parts (the head and face) which are outside the water; and while in the pack, the patient sweats copiously. Diaphoretic medicines are not given, but if, while under the treatment, the patient complains of thirst, a little soda-water is allowed. After the pack the patient usually sleeps a few hours, and on awaking feels comfortable. Dr. Breus reports six cases treated in this way. In the first, eclampsia appeared in the ninth lunar month of pregnancy. After treatment in the manner just mentioned, the fits ceased ten days after their commencement, and did not recur, the patient being delivered of a living child four weeks subsequently. In the second, the convulsions attacked the patient in the sixth month of pregnancy. She was treated by diaphoresis, the fits ceased in eleven days from

their commencement, and the patient was delivered of a living child six weeks afterwards, without recurrence of convulsions. The third case was one in which the convulsions appeared during labour and continued after delivery, when the packing was carried out. The patient did well. In the fourth case the first convulsion occurred at the end of the second stage of labour, and in the sixth case on the twenty-third day after delivery; each patient did well. The fifth case ended fatally on the third day, but this patient had had many seizures before admission into the hospital, and was comatose throughout the time she was under observation; besides which, she suffered from cirrhosis of the liver. Dr. Breus finds the treatment diminishes the dropsy and the amount of albumen in the urine. He does not think that it induces premature delivery; but if it did, he would not look on it as a contra-indication. He does not think it should be the only treatment adopted, but that it should be combined with other measures, such as narcotics, etc. Of course, Dr. Breus's cases are too few to prove the beneficial effect of his treatment; still, a mortality of one in six is rather better than the average, which is about 30 per cent.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

On Wednesday, July 12, a quarterly court of directors of the above Society was held at 53, Berners-street, in the Library of the Royal Medical and Chirurgical Society. Sir George Burrows, Bart., the President, took the chair punctually at 5 p.m. A sum of £1291 10s. was voted to be distributed among sixty-two widows, seven orphans, and three orphans on the Copeland Fund. The expenses of the quarter were £44 7s. 6d. Seven new members were elected, the deaths of four were reported, and two had ceased to be members. Fresh applications for grants were read from three widows and one orphan; and the death of one orphan, in receipt of grants since 1877, was reported. The consideration of the proposed alteration of the by-laws was postponed till the October Court.

DUBLIN LADIES' SANITARY ASSOCIATION.

The first annual meeting of this voluntary society was held in Dublin on Monday last. The chair was occupied by the Right Hon. Mr. Justice Lawson. There was a large and influential attendance, including the Countess Spencer. After some introductory remarks by the Chairman, Miss R. Reeves, on behalf of the Executive Committee, read the annual report, which showed a large amount of work done, considering the limited means at their disposal and the short time the Association had been in existence. A lending library of sanitary publications had been established, and the Committee had been successful in selling several sets of similar publications suitable for use in primary schools. Four lectures were delivered under the auspices of the Association in the Lecture Theatre of the Royal Dublin Society, and drawing-room lectures on sanitary subjects were given by Dr. Grimshaw, Dr. J. W. Moore, Dr. Cameron, Dr. Woodhouse, Dr. Tichborne, Dr. Mapother, Dr. Nixon, and Mr. Henderson. Two sets of training-classes for workers were held by Drs. Woodhouse and Cosgrave, and the Committee had been in communication with the Board of National Education in order to have sanitary knowledge taught as a branch of instruction in the schools. The Committee had divided the city into districts for sanitary visiting. The difficulties to be encountered were considerable, but the visitors were already able to report some improvement as due to their efforts. Prizes had been offered for neatness and window gardening, and seeds and flower-boxes were sold at a nominal cost to those requiring them. Last month a course of instruction in plain cooking was given by a lady member of the Association, and the Committee hoped to arrange for a repetition of the lectures periodically. Amongst the subsequent speakers were Mr. J. K. Barton, President of the Royal College of Surgeons in Ireland; the Rev. Gerald Molloy, D.D., Vice-President of the Catholic University of Ireland; Dr. Lyons, M.P., Dr. Newell, Mr. Serjeant Sherlock, the Rev. Dr. Carmichael, Dr. Cameron, Medical Officer of Health for Dublin; and Dr. Grimshaw, the Registrar-General.

THE PREVENTION OF THE SPREAD OF SMALL-POX AND FEVER IN WORKHOUSES.

It might have been supposed that common-sense measures for the prevention of the spread of infectious fevers in workhouses are taken as a matter of course, such precautions being of the most imperative and urgent necessity. It appears, however, that the Local Government Board have had occasion to call the attention of boards of guardians specially to this subject, and, in a circular letter just issued, they state that it has been brought under their notice that in some workhouses in which cases of small-pox have been under treatment persons not properly protected by vaccination have been placed in attendance upon the patients, resulting in some instances in the spread of the disease, not only among the patients, but also among the ordinary inmates of the workhouse. It is therefore pointed out that whenever cases of small-pox occur in, or are introduced to, a workhouse, nurses and other persons attending on the patients, or brought into personal contact with them, should at once be revaccinated, unless they have themselves had the small-pox, or have been successfully revaccinated within a sufficiently recent period. The Board also refer to the necessity of strict measures being taken to prevent communication between the inmates of the fever wards and those of the workhouse, as the spread of disease has, even when the wards themselves were properly isolated, been traced to the absence of this precaution. The Board further desire that every outbreak of small-pox or of any other dangerous infectious disease in a workhouse should be immediately reported to them by the medical officer of health, with a statement showing what provision has been made for the isolation and treatment of the patients, and for preventing the spread of the disease among the inmates.

MEDICAL PARLIAMENTARY AFFAIRS.

Main Drainage of London.—In the House of Commons, on Monday, July 17, Sir J. McGarel Hogg, in reply to Mr. Briggs, said that in consequence of the great increase in the population of the metropolis, the Metropolitan Board have been obliged to enlarge the reservoirs at the outfalls, to obviate the necessity of allowing the sewage to pass into the river before high water. In view of the appointment of the Royal Commission, further action has been adjourned for three months.

The Medical Act (1858) Amendment Bill was read a second time on Monday, and passed the House of Commons on Tuesday without debate or alteration.

Contagious Diseases.—In the House of Commons, on Wednesday, July 19, Mr. Stansfeld moved the second reading of a Bill for the repeal of the Contagious Diseases Acts. He argued that the existing Acts were inconsistent with the basis of morality and religion. He thought it would be impossible for any Government to pass those Acts now if they were not already on the statute-book. Mr. Childers reminded the House that a Select Committee on the subject was now about to present its report, and recommended hon. members, before coming to any conclusion, to read part of the very voluminous evidence taken by that Committee. He thought it would be an affront to the Committee if, in the face of their forthcoming report, the Bill was now read a second time. He should keep his mind open on the subject as to what course it was desirable to recommend to Parlia-

ment. He moved the previous question, and Sir Stafford Northcote supported the motion of the Secretary of State for War, which was agreed to without division.

We understand that the Museum and the Library of the Royal College of Surgeons will be closed, as usual, during the month of September; but that the Museum will be closed during August also for extensive repainting and cleaning.

THE LONDON HOSPITAL AND MEDICAL COLLEGE.

On Tuesday, H.R.H. the Duke of Cambridge, K.G., President of the Hospital, distributed the prizes to the students of the College, and also to the nursing probationers. There was a numerous attendance of governors and friends of the Hospital: amongst others were—Lord Mount Temple, Lord and Lady Brabazon, the Honourable C. Freemantle, the Bishop of Bedford, the Bishops of Ballarat and Nelson, Mr. Samuel Morley, the Masters of several of the Livery Companies, etc. The Chairman of the House-Committee and the Chairman of the College Board having stated the objects of the meeting, H.R.H. proceeded to distribute the prizes to the students, whose names were called by Mr. J. H. Buxton, the Chairman of the House Committee. The following is the list of prizes:—

Entrance Science Scholarships—£60, Mr. F. J. Smith; £40, not awarded. Buxton Scholarships—£30, Mr. W. R. Hodge; £20, Mr. J. W. Pugh. Lethebÿ Prize—£30, Mr. A. J. Richardson; hon. certificate, Mr. F. H. Taylor. Scholarship in Anatomy, Physiology, and Chemistry (open to first and second years' students)—£25, Mr. F. Hichens; hon. certificate, Mr. G. H. Allden. Scholarship in Human Anatomy (open to first year's students)—£20, Mr. H. Cropley; hon. certificates, Mr. F. J. Smith, Mr. H. Tonks. Scholarship in Clinical Medicine—£20, Mr. R. F. Fox; hon. certificate, Mr. J. Sinclair. Scholarship in Clinical Surgery—£20, Mr. R. F. Fox; hon. certificate, Mr. J. C. Davies. Scholarship in Clinical Obstetrics—£20, Mr. A. J. Richardson; hon. certificate, Mr. R. F. Fox (a prize of £15 is awarded by the Lecturer on Obstetric Medicine to the holder of this hon. certificate). Minor Surgery Prizes—first, £15, Mr. J. M. Evans; second, £15, Mr. J. E. Crisp; third, £10, Mr. J. Thomas; fourth, £10, Mr. F. Hichens; fifth and sixth, £5 each, not awarded. Dissection Prizes—first, £6, Mr. H. Jaboor, jun.; second, £4, Mr. H. Jaboor, sen. Osteology Prizes—first, £6, Mr. J. Vincent; second, £4, Mr. C. T. Samman.

The prizes to the probationers were distributed as follows:—First prize, £5 5s., Probationer May Russell; second prize, £4 4s., Probationer Helena Greaves; third prize, £3 3s., Probationer Ada Moore.

His Royal Highness then addressed the meeting, and was followed by the Chairman of the Hospital, Mr. J. H. Buxton, the Bishop of Bedford, and Sir T. Fowell Buxton. A vote of thanks was proposed by Dr. Andrew Clark, Senior Physician to the Hospital, and seconded by Dr. Langdon Down, Physician to the Hospital. Mr. R. F. Fox, the Senior Prizeman, returned thanks for the students in a speech which was much applauded. His Royal Highness then proceeded to inspect the wards and College, which were afterwards open for the inspection of the visitors. By the kind permission of Lieut.-Colonel Sir T. Fowell Buxton, the band of the 2nd Tower Hamlets R.V. performed a selection of music. Refreshments were served in tents in the Hospital ground.

Jewish Military Doctors in Russia.—It is said that the number of Jewish military doctors is to be limited to 5 per cent. of the entire number of army medical officers. In the Kijew military district, where they far exceed this proportion, their number is to be brought down to it by gradually drafting them into other military districts. In future the number of Jewish students admitted to the military medical academies is to be limited to the same proportion. —*St. Petersbury. Med. Woch.*, July 8.

ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

A meeting of the Association for the Advancement of Medicine by Research was held at the Royal College of Physicians on Wednesday, the 12th inst. There were present—Sir James Paget (in the chair), Sir Risdon Bennett, Sir Joseph Fayrer, Sir Henry Thompson, Mr. Bowman, Dr. Andrew Clark, Professor Humphry, Professor Michael Foster, Dr. Wilks, Mr. Lister, Professor Burdon-Sanderson, Professor Gamgee, Dr. Balthazar Foster, Dr. Matthews Duncan, Dr. Lauder Brunton, Dr. Gerald Yeo, Dr. Pye-Smith, Dr. Payne, Dr. Buchanan, Mr. Spencer Wells, Mr. John Marshall, and Mr. Benjamin Barrow, of Ryde.

The Treasurer reported that he had received from Sir William Mac Cormac £300 from the surplus funds of the International Medical Congress; and that the funds of the Association exceeded £1200.

The Secretary reported that many eminent men in the provinces had consented to act as Corresponding Members, and that branch committees were being established in Edinburgh, Glasgow, Aberdeen, Dublin, Manchester, and Birmingham.

The Executive Committee recommended that, as a first step in the direct promotion of research, Mr. Watson Cheyne should be requested to undertake the verification of the results lately obtained by Koch on the subject of the bacillus of tuberculosis, and the comparison of these with the results obtained by Toussaint and other observers.

Dr. Burdon-Sanderson proposed, Mr. Benjamin Barrow seconded, and it was unanimously resolved—"That the Council approve the recommendation of the sub-committee to raise funds for the payment of competent persons engaged in researches in medical science; that they regard the subject selected (tubercle) as peculiarly eligible, and sanction the expenditure recommended."

Professor Lister proposed, Professor Gamgee seconded, and it was unanimously resolved—"That the Treasurer be requested to issue a circular asking for subscriptions or donations for the object of the first resolution, and that the Corresponding Members be requested to further this effort."

The Executive Committee reported that they had selected several papers explanatory of the methods and objects of scientific research in physiology, pathology, and therapeutics, and recommended their being reprinted. They further mentioned that some papers which they desired to reprint had appeared in certain journals, the rules of which did not allow reprints until a year had elapsed from the appearance of the papers; and that they had therefore been obliged to defer the reprinting of these papers.

It was proposed by Sir Risdon Bennett, seconded by Sir Henry Thompson, and unanimously resolved—"That the Council authorise the publication of the various addresses and papers selected or to be selected by the Executive Committee, and direct that they be distributed as widely as possible by the Corresponding or ordinary Members of Council, and also sold in such manner and at such prices as the Executive Committee may recommend."

The Executive Committee reported that communications with the Home Office had led to what promised to be a more satisfactory arrangement with regard to the issue of licences and certificates under the Act 39 and 40 Vict., cap. 77; and that a memorial, showing in what respects the administration of the Act has been at variance with the spirit in which it was passed by Parliament, was now under his favourable consideration.

A resolution was unanimously carried, congratulating the Executive Committee on the result of their representations to the Home Office, and begging them to continue their efforts in the same direction.

The Executive Committee also reported that effectual steps had been taken for meeting the Bill for the Total Abolition of Scientific Experiments on Animals, which was down for second reading on June 21 last. The pressure of public business had prevented the Bill being discussed, but the movement had been useful in making evident the large and influential support that medical science may count on in the House of Commons. A memorandum which had been pre-

pared for that occasion, setting forth the necessity and utility of experiments in physiology, pathology, and therapeutics, was laid before the Council, and discussed.

It was proposed by Dr. Matthews Duncan, seconded by Sir Risdon Bennett, and unanimously resolved—"That the memorandum as amended be distributed, with the sanction of the Council, among members of Parliament and others who are interested in the advancement of medical science."

FROM ABROAD.

Management of the Perineum during Labour.

In the *Philadelphia Medical Reporter* for May 20 is a report of a paper on the above subject, read by a lady-doctor, Dr. Frances Baker, at the annual meeting of the Medical Society of the State of Pennsylvania. After enumerating the various causes which may render some form of interference necessary, she goes on to say:—

"Now, after even a brief consideration of the foregoing causes, some of which are entirely opposite in character, we may safely conclude that no single line of treatment will be applicable to all cases, but that the 'management' must be such as will meet the exigencies of each particular case. And as the first pre-requisite of successful 'preservation,' I would consider a thorough knowledge of the anatomy of the female pelvis and its organs as most essential. And side by side with this topographical anatomy I would place a thorough and critical diagnostic examination. The only safety is in knowing, and we can only know by an investigation of each and every case. We ought to know if the perineum be long or short; if there be much or little development of the parts which bound the vulvar orifice; if there be rigidity or relaxation; if tumefaction or œdema exist; the size of the vaginal orifice; the persistence of the hymen; the condition of the vaginal walls; the presence of cicatricial tissue; if the bladder be distended or the rectum full; the condition of the pelvic walls, and the dimensions of the pelvis as a whole; with the presentation and position of the fœtus. It seems to me that the line of conduct is far plainer after coming into possession of these facts than before—in other words, the future of both patient and doctor is far safer.

"And now, after being armed with a complete understanding of our case, we will often find that many of the so-called causes of laceration are removable, and that a portion of the remainder can be rendered innocuous. 1. In this day and generation no perineum should be injured from the use of ergot. So long as the uterus is occupied by the fœtus, placenta, membranes, or even coagula, ergot is strongly contra-indicated. 2. The awkward position of the patient and of the physician is quite within control. In the second stage of labour the left lateral decubitus upon the right side of the couch makes her easy of access, and places the attendant usually where he has most ease of motion. 3. Laceration from the awkward use of instruments is preventable only in one way. 4. Too much voluntary force exerted by the patient is rarely a just excuse for a tear, since an anæsthetic has come to form an unforgetable article of the *armamentarium*. And while we can thus control voluntary effort with our anæsthetic, we have at the same time a powerful opponent to rigidity of tissue. And in this stage of labour I prefer chloroform to ether. I like, of course, to know that the condition of the heart and lungs is good, that no kidney-trouble exists, and that there is no great probability of post-partum hæmorrhage.

"The condition of the rectum and bladder should *always* receive attention, no matter what the statement of the patient. A rectal enema of warm soapsuds should be a matter of routine, if ever routine practice is admissible. The use of the flexible catheter during the second stage, even if not unduly prolonged, is good practice, but not always easy. But what shall we do to the perineum? *Do not support it.* Manipulations directed to the perineum destroy its integrity, and the best results follow support of the presenting part rather than of the perineum itself. With two fingers in the rectum you can have absolute control of the head after the mouth is accessible; and always should the presenting part be expelled in the *intervals* of contractions. In many cases full control of the presenting part can be maintained by pressure upon it with the thumb and index-finger, without resort to the rectal touch, which is always offensive to the patient. And at no time during the expulsion should we lose sight of the mechanical relations. If there be too much flexion, favour the upward movement of the head towards the symphysis, which can best be accomplished from the rectum. Or, if too early extension of the head occurs before relaxation be completed, favour flexion by pressure on the presenting part backwards towards the sacrum. But if the axis of the fœtal cylinder is cutting the diameter of the vulvar circumference at a right angle, then will the cylinder pass through the ring with least damage to its margins; and to push upwards or backwards would be to spoil the relations, and, instead of giving intelligent assistance, we should be substituting meddlesome stupidity. But what to do in those cases where a tear is inevitable? Then resort to the bilateral incision of the vulvar orifice. If the continuity of the tissue must be destroyed, control the locality, and, as far as possible, the extent of the tear. These incisions should be made through the lateral margins of the orifice, midway between the anterior and posterior commissures; and if the margins of the vaginal orifice form a constricting band over the presenting part, then the incisions should include the vaginal tissue also. Occasionally we need not include the vulvar tissue. A central tear of the perineum may commence as a tear of the vagina, but in the majority of cases the borders of both the vaginal and vulvar orifices need to be included in the track of the bistoury or scissors.

"The best-made objections to these incisions is that they do not always prevent a central tear; but if they save but 50 per cent. of the otherwise unavoidable central lacerations of the perineum they should not be abandoned. They are not painful if made during a contraction, and union without suture is more probable than in a central tear of the perineum of the same length, because they can be made out of the reach of the perineal muscles. In conclusion, I wish to record one more plea, and a positive one too, in addition to the many already so well made for the *immediate repair* of injury to the perineum. I quite fail to see why it is so often postponed. The benefits that accrue to the patient are incalculable; her consent is usually easy to obtain; in fact, her *morale* at that time is very often better for the operation than at a subsequent period; while we have, naturally, all the attendant circumstances necessary for union (except the presence of the lochia). Then the sensibilities of the parts are reduced to a minimum, and an anæsthetic is not always indispensable. So that we have an operation of comparative ease, which by delay is convertible into one both painful and tedious; so, in view of these facts, I would insist that the immediate repair of lacerations of the perineum be regarded as part of the attending physician's duty, and the avoidance of it punishable by at least a lower professional standing."

The Budget of Paris.—The expenditure of Paris is rapidly increasing every year. Thus the ordinary annual expenditure has risen progressively from 1875, when it was 199,621,470 fr., to 253,680,890 fr. for the present Budget. Of these expenses those required for educational purposes have risen from 10,487,317 fr. in 1878 to 21,471,490 fr. in 1883; and for the Assistance Publique from 13,548,850 fr. in 1876 to 19,312,900 fr. in 1883. Among the receipts those from the *octroi* have increased from 107,557,565 fr. in 1869 to 148,630,830 fr. in 1882; and the profits from gas have increased from 9,200,000 fr. in 1875 to 12,400,000 in 1882.—*Revue Scientifique*, July 8.

Prof. von Langenbeck on Iodoform.—At the recent Congress of German Surgeons, Prof. von Langenbeck spoke warmly in favour of this substance, not only for its power of diminishing secretion, but of relieving pain. In his cases he seldom had to employ more than five grammes, and only quite exceptionally as much as fifteen grammes. One especial advantage he had derived from it in plastic operations was due to the soft elastic cicatrix which formed under the scab when it was used, so that transplantation often became superfluous. In a case of extensive nævus, which he had removed from the region of the lower eyelid (which formerly would have required a second operation to relieve the resulting ectropion), a soft and smooth cicatrix was left, which produced no deformity whatever.—*Deutsche Med. Woch.*, June 24.

REVIEWS.

On Cancer of the Breast. By Thomas William Nunn, F.R.C.S., Eng., Consulting Surgeon to the Middlesex Hospital. With coloured illustrations. London: J. and A. Churchill. 1882.

"This essay is divided into two parts—the first clinical and practical, the second pathological and speculative." Such are the opening words of the author's preface, and they will be found to fairly express the general range and character of the work. There is, however, besides, a long introduction on the nature of cancer, its mode of development and growth, the diverse appearances and the points of resemblance of the various forms of cancer, and the structural elements of cancerous growths.

In Part I. there are remarks on the comparative frequency of cancer of the breast and the age of the patients affected, based upon the experience of the author in the cancer out-patient department of the Middlesex Hospital, and the analysis of 1000 cases from the registers of the in-patient cancer department of the same Hospital. References are also freely made to the statistics of other writers on the subject. Under the heading of "Diagnosis," the author discusses the question of a cancerous cachexia, and makes many valuable practical comments on such points as the primary local symptoms of cancer of the breast—pain, retraction of the nipple and alteration of the level of the mamma, discharges from and various associated morbid conditions of the nipple and areola, as well as the coincidence of other forms of mammary tumour with cancer.

As to prognosis, the uncertainties connected with cancer are pointed out: and the necessity of caution in speaking of the possibilities in the course of the disease is insisted upon, and several cases are recorded which furnish examples of an exceptional history. In the progress of cancer the author inclines to the opinion that the secondary affections of the cerebro-spinal system and its envelopes, though rare on the whole, are more frequent in the classes in which the nervous system is the most highly developed.

"The question of operation" is fully discussed, and various and opposing opinions are quoted; but the author emphatically states his own view thus:—"According to what I have stated, operation does not require for its justification any theory that the disease is of a local character, and that the system is contaminated from the first manifestation of the disease 'because of the manifest dependence of the later tumours upon the first'; nor is operation to be rejected because of an assumed constitutional condition. Operation steps in and anticipates the changes which would otherwise destroy the organ, and probably torture, and torture slowly, the patient. As I have met with an immunity from a return of local disease for sixteen years, one has, in my opinion, the right to act upon the chance of again meeting with similar results."

As to the extent of removal the author is no less explicit. He says—"When an operation has been decided upon, the removal of the entire mammary gland must be complete. Any partial removal is not only useless, but worse than useless; the occurrence of the slightest speck of cancer in a gland declares that the whole organ is more or less ready for special degeneration. . . . But, beyond the question of operation in the first instance, there arises the equally important, if not more critical, question as to the course to be pursued in local returns of the disease. There should be no hesitation on the simple ground of the tumour being a recurrence. I have seen enough of the advantage of repeated operations to encourage me to say this, though there is a line beyond which little but disappointment is to be reaped—where the opposite breast has become involved in cancerous disease, and where the patient has grown much older in constitution as well as in years."

Several practical observations, the outcome of the author's extensive experience at the Middlesex Hospital, on the operation of amputation of the breast, follow the discussion of the question of operation. The advisability of a second incision in cases in which the thorax is of a peculiar shape; the preservation intact, where possible, of the fascia of the pectoral muscle, and the special reasons for this non-interference; and the precaution to search for enlarged axillary glands with due regard for anatomical facts, and in doing so not to have the arm extremely abducted by the assistant, are all points to which the reader's attention is particularly and properly drawn. The latter point is especially worthy of attention in these times, when the wholesale ablation of the glands of the axilla is recommended in a manner which, it is not too much to say, sometimes borders on the reckless.

The use of sulphurous acid as an antiseptic has been attended with results which the author declares could not be surpassed "by the most rigid application of any of Professor Lister's several processes."

The employment of caustics, it is stated, has been unduly extolled, and as unduly neglected. The circumstances in which this mode of treatment is harmful and in which it is beneficial are described. A section is added on the treatment of cancerous sores, which consists in great part of a summary of the merits of several well-known disinfectants applicable to such cases. The details of sixty typical cases—"cases which furnish illustrations not only of the average course of cancer, but of the extremes"—are appended, followed by a tabular statement of the post-mortem records of 223 cases of cancer of the breast from the registers of the Middlesex Hospital.

In the second part the theories as to the origin of cancer are passed in review; the pathological reaction in the several tissues that constitute the mammary gland are considered; the connexion of ichthyosis and eczema in relation to cancer is referred to, and opinions on the subject are quoted; the life-history of cancer, and the social, geographical, and constitutional conditions of the victims of it, are commented upon; the views of several French and German pathologists are epitomised; and finally an appendix is added, consisting of an abstract, referring chiefly to the opinions of the various speakers in the discussion on Cancer at the Pathological Society in 1874.

We cannot say that there is anything original in this work; it is in large part a compilation from the writings and opinions of others; but there is besides a great collection of materials from Mr. Nunn's own practice, and from the wards, out-patient department, and post-mortem room of the Middlesex Hospital.

In conclusion, we must congratulate author and artists on the very beautiful coloured illustrations of the appearances of various cancerous affections of the mamma, and of the microscopical characters of the growths. These plates are undoubtedly of very high order of merit, and are the cause of the very high price at which the work is published.

Ringworm: its Diagnosis and Treatment. By Alder Smith, M.B. Second Edition, with illustrations. London: H. K. Lewis. 1882. Pp. 166.

Dr. Alder Smith's book appears, in its second edition, re-written and enlarged "to double its original size." That it meets a want, few will question who have much to do with ringworm; and that it deals with a very troublesome subject in a thoroughly practical manner, none will doubt if they will take the trouble to read the book for themselves. It is regretable that it has been found necessary to enlarge the volume so much. Among its great recommendations were its moderate size and the essentially dogmatic nature of its utterances.

The author thinks "it is surprising that the results of the treatment of ringworm of the *head* should generally be so very unsatisfactory." We fear, in a large number of cases, that this is due less to the treatment than to the carelessness of those who have to carry it out. The disease at first appears so slight (even as medical practitioners we are quite unable to predicate which cases will be tedious and which will recover rapidly) that it is allowed to get well established before the case is taken seriously in hand. In the second place, treatment is left off too soon. We are quite willing, however, to admit, even allowing for the above cases, that there is a residuum which defies almost every effort at cure. There appears to be a constitutional peculiarity in the nutrition of some children that favours the growth of the fungus, and that despite all the parasiticides which can be applied. Then again, if it be true that the conidia of the fungus can be transmitted through the air, as was suggested by Dr. Tilbury Fox—a view which the author neither accepts nor denies—we have other sources of difficulty to meet before we can consider ourselves masters of

the situation. For our own part, we cannot bring ourselves seriously to consider this mode of contagion proven. That the lower animals frequently communicate the disease to man seems probable, and it would be well, in any house where ringworm has become chronic, to examine all domestic animals, and, if needs be, to banish them at once.

The diagnosis and varieties of ringworm on the head are dealt with in chapters II. and III. Here the student will find some valuable matter, and he will do well to digest it thoroughly; as also chapter IV., which contains an answer to the question, "When is ringworm to be pronounced cured?"

The treatment of ringworm is divided into that for recent cases and that for the chronic disease. Both are dealt with practically and in full detail. The treatment for chronic cases is chiefly spoken of under "the artificial production of kerion," in chapter VIII. This artificial production of kerion is called "nature's method of effecting a cure." Other remedies having failed to bring about a complete cure, "a few small, isolated, inveterate patches" still remaining, this plan is recommended, and "always results in a speedy cure of the disease." As many precautions are necessary, we refer the reader to the book, rather than attempt to give any abstract of the treatment, which would necessarily be imperfect. The treatment of ringworm on the body—the question of general and constitutional, apart from the local, treatment; ringworm in schools; precautions to be observed, etc., are discussed with equal ability; and the book closes with a formulary and copious index. We recommend the work to all practitioners who wish for a good, though brief, account of this apparently simple, but very troublesome, complaint.

IODOFORM IN PROF. BILLROTH'S PRACTICE.—A correspondent of the *Chicago Med. Journal* states that since April, 1881, Prof. Billroth has used this substance for all wounds in his immense clinic. He lost two scrofulous children, in one case forty grammes of crystals having been put into a large cavity of abscess of the hip after evacuating the matter, while in the other 120 grammes were used after resection of the head of the femur. He now employs powdered iodoform by means of a pepper-box or dusting it on by cotton. If a wound is large and promises profuse suppuration, iodoform gauze is applied like Lister's carbolised gauze. It is prepared by pouring the necessary amount of powder into a basin, and then rubbing thoroughly around in this, laundress fashion, a piece of suitable large-meshed cloth. In this way from 10 to 20 per cent. of the bandage consists of iodoform, and has supplanted Lister's bandage. In mucous surfaces he uses a gauze prepared from gelatine, and containing from 30 to 50 per cent., to compensate for the loss entailed by movements and irrigations of the surfaces. For fistula in ano, for the nose, uterine cavity, etc., he makes suppositories of iodoform and gum arabic, with or without glycerine, according to the consistence required. For irrigation of the bladder and subcutaneous injections, a suspension of iodoform in glycerine (one to ten) or ether (one to five) is employed. The first bandage is usually removed on the fourth or fifth day, though sometimes allowed to remain ten, twelve, or even fourteen days. As granulations after prolonged iodoform dressing are apt to be flabby, an ointment or lotion (one to 100) of argent. nitr. is usually substituted as soon as the surface is covered with granulations. Usually two or three dressings are sufficient. Nothing can exhibit the good results more forcibly than Prof. Billroth's statistics of operations for carcinomatous tongue. Between 1871 and 1876 the mortality was 32 per cent., and in 1877-80 (fifty-three cases), with irrigation of permanganate of potash lotions, 18 per cent. From April to October, 1881, he performed the operation eighteen times with eighteen recoveries, the dressing consisting in these of a piece of iodoform gauze, fifteen to twenty centimetres long, containing about a gramme of iodoform rolled up so as to form a tampon, and pressed into the wound, being removed from five to eight days after the operation.—*Louisville Med. News*, June 17.

PROPOSED SOUTH SIDE HOSPITAL, GLASGOW.—The Glasgow Town Council has adopted the suggestion of the Parks Committee to grant four acres and a quarter of ground connected with the South Side Park, at a price of five shillings a square yard, as a site for the building.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 15, 1882.

BIRTHS.

Births of Boys, 1237; Girls, 1216; Total, 2483.
Corrected weekly average in the 10 years 1872-81, 2560·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	718	629	1347
Weekly average of the ten years 1872-81, corrected to increased population ...	827·8	745·3	1573·1
Deaths of people aged 80 and upwards			33

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (uncorrected).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669823	...	12	2	2	14	...	3	...	9
North ...	905947	1	3	2	2	15	...	6	...	27
Central ...	282238	...	4	...	...	3	...	1	...	8
East	692738	1	7	7	1	13	1	1	2	29
South	1285827	2	18	15	3	20	...	3	1	29
Total	3816483	4	44	26	8	65	1	14	3	102

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·503 in.
Mean temperature	59·8°
Highest point of thermometer	73·6°
Lowest point of thermometer	48·4°
Mean dew-point temperature	54·3°
General direction of wind	S.W.
Whole amount of rain in the week	0·85 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 15, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending July 15.	Deaths Registered during the week ending July 15.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2483	1347	18·1	73·6	48·4	59·8	15·45	0·55	1·18
Brighton	109595	61	31	14·8	71·5	52·7	60·7	15·95	0·90	2·29
Portsmouth ...	129916	87	52	20·9	...	...	...	...	...	...
Norwich	88821	51	24	14·1	...	...	...	...	...	...
Plymouth	77499	45	24	16·8	70·1	54·0	58·6	14·78	1·43	3·63
Bristol	210134	155	68	17·1	69·0	49·3	57·5	14·17	2·54	6·45
Wolverhampton ...	76756	54	29	19·7	69·0	44·5	55·5	13·06	1·55	3·94
Birmingham ...	408532	272	117	14·9	...	...	...	...	...	...
Leicester	126275	105	63	26·0	70·5	46·0	57·4	14·11	1·49	3·78
Nottingham ...	193373	143	71	19·1	76·8	44·7	58·7	14·83	1·40	3·56
Derby	83587	55	24	15·0	...	...	...	...	...	...
Birkenhead ...	96582	81	33	19·9	...	...	...	...	...	...
Liverpool ...	560377	410	270	25·1	70·1	49·3	57·1	13·95	1·01	2·57
Bolton	106767	62	38	19·1	66·8	44·7	54·2	12·33	1·23	3·12
Manchester ...	349211	228	150	23·0	...	...	...	...	...	...
Salford	184704	147	86	24·4	...	...	...	...	...	...
Oldham	115572	98	41	19·9	...	...	...	...	...	...
Blackburn	106469	87	45	22·1	...	...	...	...	...	...
Preston	97656	79	42	22·4	...	...	...	...	...	...
Huddersfield ...	83415	51	29	18·1	...	...	...	...	...	...
Halifax	74713	46	24	16·8	...	...	...	...	...	...
Bradford	200158	141	91	23·7	70·2	49·0	57·0	13·89	1·00	2·54
Leeds	315698	222	127	21·0	72·0	48·0	58·4	14·66	0·81	2·06
Sheffield	236516	213	87	15·6	70·0	47·0	57·8	14·34	0·89	2·26
Hull	158814	110	67	22·0	74·0	44·0	58·5	14·72	0·65	1·65
Sunderland	118035	85	51	22·3	82·0	50·0	60·8	16·01	0·69	1·75
Newcastle	147626	102	56	19·8	...	...	...	...	...	...
Cardiff	83724	62	29	17·4	...	...	...	...	...	...
For 28 towns ...	8469571	5718	3121	19·2	82·0	44·0	58·0	14·44	1·17	2·97
Edinburgh	232410	123	70	15·7	66·6	47·9	57·4	14·11	1·28	3·25
Glasgow	514048	358	222	22·5	...	...	...	...	...	...
Dublin	348293	209	112	16·8	68·7	46·0	55·2	12·89	0·87	2·21

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·50 in. The lowest reading was 29·22 in. on Tuesday evening, and the highest 29·78 in. on Wednesday evening.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 5.

Dr. MATTHEWS DUNCAN, President, in the Chair.

EXTRA-UTERINE GESTATION.

DR. DALY exhibited a specimen of tubal gestation in which rupture of the cyst had taken place in the third month. The patient lived four days after the rupture. The nature of the case was diagnosed during life, and the question of opening the abdomen discussed, but decided against on account of the collapsed condition of the patient. Douglas's pouch was aspirated, and eight ounces of blood drawn off. On autopsy about two pints of blood was found diffused in the abdomen, but no peritonitis.

Dr. WILTSHIRE advocated prompt operative interference in cases of internal hæmorrhage from ruptured tubal fœtation or rupture of varicose veins in the broad ligament; especially where, as in this case, the diagnosis was reasonably clear.

Mr. LAWSON TAIT agreed with Dr. Wiltshire. In case of doubt an exploratory incision would settle the diagnosis, was safe, and more satisfactory than tapping.

Dr. ROUTH observed that a decidua was present. By dilatation of the cervix the presence of such decidua might be ascertained, and the diagnosis in a doubtful case settled.

Dr. CARTER thought operative interference advisable in these cases. The specimen showed how easily the cyst might have been removed.

Dr. CHAMBAZIAN (Paris) described the case of an actress, who died in Paris from rupture of an extra-uterine gestation, so suddenly that poisoning was suspected. In such a case no operation could have been performed.

REMOVAL OF THE UTERINE APPENDAGES.

Mr. LAWSON TAIT showed fifteen specimens of uterine appendages removed by him since December, 1881, for hydro- or pyo-salpinx. The symptoms were pain aggravated by walking, by marital intercourse, and at the menstrual period. Five cases were due to gonorrhœa, and four either due to, or aggravated by, pessaries. In most the operation gave immediate and complete relief; in all there was improvement; none had died. He objected to the terms, "spaying," "castration of women," "normal ovariotomy," because they implied that healthy ovaries were removed, an operation which he had never done. He thought the operation of doubtful value in neurasthenic cases; of these he had only done four, and at present was not disposed to go further. For myoma, its mortality was less than that of lithotrity in the male, and its results more certain. For the class of cases from which the specimens exhibited were taken, it was the only means which offered a hope of relief.

UTERINE TUMOUR.

Dr. CARTER showed a uterine tumour, weighing sixteen pounds and a half, removed by him. The pedicle had been secured by Kœberlé's serre-nœud.

THE RELATION OF BACKWARD DISPLACEMENTS OF THE UTERUS TO PAINFUL MENSTRUATION.

Dr. HERMAN read a paper on the above subject. It was admitted that there were cases of backward displacement of the uterus accompanied with dysmenorrhœa, in which the menstrual pain was relieved when the uterus was elevated and straightened. The author found, from his own experience and that of others, that such dysmenorrhœa was slightly commoner with retroflexion than with retroversion. The object of the paper was to inquire into the explanation of these facts. Three theories had been advanced to explain them. *a*. That the dysmenorrhœa was due to narrowing of the canal at the point of flexion, and consequent obstruction to the outflow of menstrual blood. The author pointed out that there was anatomical evidence that the uterus might be bent to any extent without causing hindrance to the escape of menstrual blood; that there was no anatomical evidence that flexion ever obstructed the canal, except when the uterus was fixed by adhesions, or its wall thinned by senile atrophy; and that this theory did not explain clinical facts. *b*. That the dysmenorrhœa was due to congestion from strangulation of vessels at the point of flexion. The author found no anatomical evidence that any such strangulation ever occurred; and that the theory did not explain clinical facts. *c*. That the dysmenorrhœa was due to congestion produced by the pressure of the utero-sacral ligaments upon the veins running in the broad ligaments. The author found that the disposition of the parts concerned was such as to permit such pressure; that one case had been recorded in which there was anatomical proof that such pressure had actually occurred; that this theory was therefore supported by anatomical evidence; and that it explained clinical facts. The author's general conclusion was the following:—"That while dysmenorrhœa accompanying retroflexion is often, it may be generally, dependent upon other concomitant conditions, yet that there are cases in which it is simply the result of the displacement; and that in such the dysmenorrhœa is probably entirely due, not to the flexion, but to the veins of the broad ligaments being compressed against the utero-sacral ligaments."

Dr. HEYWOOD SMITH thought that the symptoms accompanying retroflexion were generally due to other concomitant conditions, the flexion only in the minority of cases causing symptoms. The constriction at the point of flexion was apparent only, not real. In one case he had divided per rectum the utero-sacral ligaments. A low form of peritonitis followed, but the uterus had since remained in the normal position.

The PRESIDENT said that Dr. Herman had finally disposed of two great and unduly prevalent errors. The first was that in flexion of the uterus there was a projecting spur or stricture, obstructing the passage of blood or fluid; the second was, that behind the imaginary obstruction, the uterine cavity was dilated. Much of the reasoning, both in this paper and in the one discussed at the last meeting, turned on *pain*. Pain was too ill-defined a term to be wisely made the basis of conclusions; we had no good means of measuring its degree or kind, and nothing was more wanted. One woman would call excruciating what another would speak of as trivial. The utero-sacral ligaments could in many women be felt by the finger. Descent of the uterus so as to be grasped by the utero-sacral ligaments was a rare event. Ever since the paper of Dr. John Williams, which had pointed out their action, he had attended to this matter clinically; but his observations had yielded him nothing of sufficient importance to lay before the Society.

Dr. HERMAN said it was impossible to avoid reasoning from pain; and he thought that errors due to the incorrect statements of a few individual patients became neutralised by taking a large number of cases. He did not think that the cases in which the utero-sacral ligaments caused congestion of the uterus were more than a small minority.

INSANITY FROM ACTION OF DRUGS.—Dr. Kane, of the De Quincey Home, Fort Washington, New York City, has published, in the *Philadelphia Med. Reporter* for May 13, a circular addressed to the medical profession, asking for information on the following points:—1. Have you ever seen any cases of insanity, temporary or permanent, or any deviation from the mental or moral state, that could be traced directly to the use of a single large dose, or the continued use, of opium or any of its preparations or alkaloids? 2. Of what type was such insanity? Give symptoms. 3. State age, sex, civil condition, and occupation. 4. What were its duration and result? 5. State colour of patient's hair, eyes, and complexion. 6. Was there any hereditary tendency to insanity, or any history of alcoholism, grave nervous disease, or any drug-habit in ancestors? 7. What amount of the drug was used, and for how long a time? 8. What treatment was pursued? 9. Please answer the same questions regarding the use of chloral hydrate, the bromide of potassium, or other drugs. Stamps will be returned for all answers. When so requested, communications will be treated confidentially, and a reprint of the article embodying the result of such statistics will be sent to each correspondent.

HYGIENIC EXHIBITION, BERLIN.—It has been resolved to erect a building of glass and iron on the site of the one recently destroyed by fire, which was intended for the Exhibition.

OBITUARY.

ALEXANDER SILVER, M.A., M.D., M.R.C.P.

A MORE trying duty could not well be undertaken than that of writing the obituary notice of a faithful friend and colleague in the pages of the journal with which he has been connected for many years. This sad task devolves upon us to-day, when we have to chronicle with great sorrow the almost sudden death of Dr. Alexander Silver. How unexpected the event was may be gathered from the fact that it is not a week since he was busily occupied with the proof-sheets of our last number, and yet when this reaches our readers he will have already been dead five days. It is not easy to write dispassionately and formally respecting him under such circumstances.

The life of Alexander Silver affords one of the most remarkable instances with which we are acquainted of the vigour of the Northern character, and of the value of the Scotch system of education in discovering and fostering whatever of talent or genius may come within its influence. Born in Forfarshire in 1841, Alexander Silver went to the parish school, where his intelligence was found to be so promising that he was encouraged and assisted to proceed to the study of the classical languages, and, having sufficiently mastered a knowledge of these, the way to college was open before him. By means of a bursary he was enabled to begin work at the University of Aberdeen, and he then entered upon a career of work and self-help which is not easily paralleled even in the North. During the long winter session he laboured as a tutor, whilst he was reading himself into the very first places in the prize-lists; during the summer he worked with his hands on the farm, and laid by a store for the next term in town. The second year as an Arts student saw him commence Medicine as well, and making as distinguished an appearance in Science as in Classics or Mathematics. He was thus able to graduate M.A. in 1862, with Honours in Natural Science and the gold medal for general excellence; and M.D. and C.M. in 1863. Once qualified, Dr. Silver did not follow the ordinary course, but struck out a line perfectly his own. He became an assistant to two of the medical chairs, took private pupils, and proceeded to write a book. In some respects this was the most active period of his life; and old Aberdeen men will not readily forget the energetic young assistant-professor, overflowing with enthusiasm, and working without end. His "Outlines of Elementary Botany," produced at this time, shows the keen appreciation which he had of the difficulties of the student, and is still regarded as a most excellent manual in every respect. No doubt this book was the occasion of his proceeding to London, whither he came in 1867, to lecture on botany at the London Hospital. Very shortly afterwards he transferred his services to Charing-cross Hospital, becoming first a lecturer in the school, and soon afterwards Assistant-Physician. From that time to the day of his death, Dr. Silver was closely associated with Charing-cross Hospital, where his energy and ability were thoroughly appreciated, and attended with the happiest results.

Dr. Silver's connexion with the *Medical Times and Gazette* dates back some sixteen years. From nearly the commencement he occupied a position of importance and trust upon the staff, and for several years he held the highly responsible post of sub-editor.

It is difficult, so soon after the death of one so intimately associated with us, to do justice to his abilities and personal character. Handsome and intelligent in countenance, Dr. Silver possessed as his strongest characteristics indomitable energy, untiring working power, and an extraordinary knowledge of things in general—thanks to an insatiable appetite for books, a very quick and clear judgment, and a remarkably incisive and retentive memory. The amount of information, general and professional, which he in this way made his own was very great; and in his capacities as a teacher and a journalist he was never at a loss to make use of it. His literary style was characteristic of the man—sententious, sometimes rugged, not seldom severe, yet adorned with many of the graces which prove the experienced writer; and he was a master of honest Saxon English. His qualities as a physician were wonderfully in accord with those which we have just mentioned. He was eminently practical; not elaborate in diagnosis, but possessing the rare faculty of grasping the salient points in a case; ready in suggesting a line of treatment; "honest"—almost severe—in the measures which he prescribed. He possessed a thorough knowledge of therapeutics; and, it may be added, a greater belief in remedies than might perhaps have been expected in him, but, like all his beliefs, it was distinct, well worked out, and positive. His favourite clinical studies were Bright's disease and diabetes, but he was distinctly an "all-round" physician; and he produced a most sound and sensible little book on "Practical Medicine," which is a great favourite with thoughtful students. It was his intention several years ago to have published his lectures on physiology, but the scheme fell through. Several clinical lectures and other able papers from his pen have appeared in the pages of this and other medical journals during the last ten years.

Dr. Silver's funeral will take place at one o'clock on Saturday, at Brompton Cemetery.

MEDICAL NEWS.

THE ROYAL UNIVERSITY OF IRELAND.—At the first public meeting of the University, held on Thursday, July 13, the following degrees in Medicine and Surgery and diplomas in Midwifery were conferred by the Right Hon. Lord O'Hagan, Vice-Chancellor of the University:—

Doctor in Medicine.—Percy Allport, Martin Henry Atock, Thomas Cahill, William Courtney, Timothy Joseph Crowley, Pierce Joseph Daly, Luke Gerald Dillon, Patrick Joseph Gallwey, John C. Hackett, William Edward Hadden, Henry Aylmer Haines, Samuel Hamill, Samuel Hamilton, Charles James Holmes, James Macgregor Lithgow, Connor Joseph O'Loughlin Maguire, Robert Carmichael Moore, Patrick O'Gorman, Thomas Henry O'Shaughnessy, John Mortlock Phillips, Leonard Robinson, George Atkins Rountree, Arthur W. Sandford, James M. F. Shine, Samuel Stronge, John Wilgar Taylor, Joseph H. Whelan, John W. Williams, James Vance Young.

Master of Surgery.—Percy Allport, Thomas Cahill, William Courtney, Timothy J. Crowley, Charles Daly, Pierce Joseph Daly, Luke Gerald Dillon, John C. Hackett, William Edward Hadden, Samuel Hamilton, Charles J. Holmes, Samuel William Johnson, William Kelly, Daniel Lehane, Edward M'Connell, John J. M'Cormick, Connor Joseph O'Loughlin Maguire, Robert Carmichael Moore, Thomas H. O'Shaughnessy, Ferdinand A. Purcell, Leonard Robinson, Robert Leonard Rutherford, Arthur W. Sandford, James M. F. Shine, Samuel Stronge, John Wilgar Taylor, Joseph H. Whelan, John W. Williams, Charles Wiseman.

Diploma in Obstetrics.—Percy Allport, Thomas Cahill, James Craig, Timothy J. Crowley, Pierce J. Daly, Patrick J. Gallwey, John C. Hackett, William Edward Hadden, Charles J. Holmes, William Nelson, Arthur W. Sandford, James M. F. Shine, Joseph H. Whelan, Charles Wiseman.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 13th inst., and when eligible will be admitted to the pass examination, viz.:—

Archer, Ernest R. B., student of Guy's Hospital.
Baker, A. J. Glanville, of University College Hospital.
MacAnally, Charles A., of Guy's Hospital.
Maguire, Charles P., of the Dublin School.
Phillips, Thomas, of University College Hospital.
Sutton, James B., of the Charing-cross Hospital.

Eight candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including two who had an additional three months. With this meeting the Primary Examinations for the present session were brought to a close. Of the 252 candidates examined, no less than 102 were rejected for three months, including thirteen who had an additional three months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 17th inst., viz.:—

Ashdown, Herbert H., M.B. Edin., Edinburgh.
Holton, Joseph S., M.B. Edin., Finstock, Oxon.
Collier, Joseph, L.S.A., Manchester.
Dobie, William H., M.B. Edin., Chester.
Hyrons, Ernest A., L.R.C.S. Edin., Pidmore, Stourbridge.
Jameson, Granville, M.B. Edin., Heywood, Manchester.
Keep, Arthur C., M.B. Edin., Wollaston, Northamptonshire.
Mills, Bernard L., M.B. Edin., Edinburgh.
Nash, John B., M.B. Edin., New South Wales.
Neve, Ernest F., M.B. Edin., Hurstpierpoint.
Nicholson, Malcolm A., M.B. Toronto, East Dulwich.
Parkinson, Charles J., L.S.A., Greenheys, Manchester.
Patterson, George de J., M.B. Dub., Dublin.
Roy, Siva Prasad, M.B. Calc., Calcutta.
Sinha, Narendra Prasanna, L.M. Bengal, Calcutta.
Stapleton, Joseph J., M.B. Edin., New South Wales

Two gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and nine candidates were rejected. The following gentlemen passed on the 18th inst., viz.:—

Chadwick, Charles M., L.S.A., Tunbridge Wells.
Hindley, Harold, Hammersmith.
Horrocks, William H., Bolton, Lancashire.
Lessey, Sandford S., Ealing.
Milton, Herbert M. N., L.S.A., Clapham.
Minds, Bowen S., Blackheath.
Montford, James, L.R.C.P. Edin., Churchstoke, Montgomery.
Musgrave, Frank E., Leeds.
North, John H., Walsall.
Perkins, Alfred T., L.R.C.P. Edin., Stoke Newington.
Preston, George, Barton, near Manchester.
Price, John D., Dudley.
Scatchard, Walter, Boston Spa.
Waldy, John, Darlington.
Wilkinson, William C., Sydney, New South Wales.
Wilson, Arthur H., Liverpool.
Withers, John, Sale, Cheshire.

Two gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and nine were rejected. The following gentlemen passed on the 19th inst., viz.:—

Andland, William E., Milnethorpe, Westmoreland.
Challinor, Cedric, Bolton.
Culhane, Francis J. F., Hastings.
Dingley, Edward A., Sherborne, Dorset.
Donnet, J. J. Conway, Dover.
Drew, Hedley V., Gloucester-place, W.
John, David, Swansea.
Jones, David L., Llandilo, South Wales.
Lowe, Thomas P., Burton-on-Trent.
Morris, Charles A., Lower Norwood.
Penn, John E., Plymouth.

Five gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and eleven candidates were rejected.

Pass Examinations.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the 280 candidates at the written examination for the diploma of Membership of the Royal College of Surgeons on the 14th inst., when they were required to answer at least four (including one of the first two) out of the six questions between 1.30 and 4.30 o'clock p.m., viz:—1. What structures of surgical importance pass through the parotid gland? What is their relative situation, and what are the relations of the gland itself? 2. Describe the parts composing the ankle-joint, giving the forms of the articular surfaces, the attachments of the ligaments, the movements of the joint; and mention, in order, the structures in direct relation with the joint. 3. By what symptoms would you be led to infer the existence of a loose body in a joint, say the knee? How would you treat such a case? 4. Give the clinical symptoms which mark the progress of caries of the vertebral column proceeding to a fatal termination; and indicate the treatment you think proper in the several stages of this disorder. 5. A man is stabbed through the anterior fold of the axilla, and serious hæmorrhage occurs. What vessels may have been wounded, and what treatment would you adopt? 6. Describe syphilitic iritis, detailing the symptoms and treatment. The following were the questions on Midwifery and Diseases of Women and Children, submitted to candidates on the 15th inst., between 12.30 and 2.30 p.m., when they were required to answer three out of the four viz.: 1. What are the causes of secondary hæmorrhage after labour? How would you treat it? 2. In what circumstances, and how, would you induce labour at the seventh month? How would you estimate the size and shape of a supposed contracted pelvis? How would you differentiate the following conditions: pregnancy at the sixth month, an ovarian tumour reaching to the umbilicus, a uterine fibroid reaching to the umbilicus, and effusion of blood reaching to the umbilicus? The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the same day from 2.30 to 4.30 p.m., when they were required to answer three out of the four questions, including No. 4, viz.:—1. What are the consequences, local and general, and what the diagnostic signs, of the following varieties of heart-disease?—*a*. Obstruction at aortic orifice; *b*. Incompetence of aortic valve; *c*. Obstruction of mitral orifice; *d*. Incompetence of mitral valve. 2. What are the various causes of obstruction of the œsophagus? and how would you distinguish them clinically from one another? 3. Discuss the morbid anatomy and symptoms of the different kinds of goitre, and their relations to other morbid states. 4. Describe the composition, dose, and uses of the following preparations:—Liquor arsenicalis; liq. bismuthi et ammoniæ citratis; liq. hydrargyri perchloridi; liq. ferri pernitratis; pilula phosphori; pil. plumbi cum opio; pil. quiniæ; pil. saponis composita; pulvis cretæ aromaticus cum opio; pulv. ipecacuanhæ compositus; pulv. jalapæ compositus; pulv. kino compositus; vinum antimoniale; vin. colchici; vin. ipecacuanhæ; vin. quiniæ.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, July 10, 11, 12, and 13; and at the quarterly First Professional Examination, held on Monday and Tuesday, July 10 and 11, the following candidates were successful:—

First Professional Examination—

Ditton, Paul Robert, Dublin.
Dowson, Mrs. Mary Emily, London.
McCall, Annie, London.
Russell, Agnes, London.
Tones, Florence Nightingale, London
Walker, Jane Harriett, London.

The Licence to practise Medicine—

Bake, Alfred Benjamin, Seacombe, Cheshire.
Boyd, Walter, Dublin.
Chandlee, Sydenham Davis, Dublin.
Cooper, Austin Nathaniel, St. Dolonghs, co. Dublin.
Crimmin, John, Bruff, co. Limerick.
Evans, Owen Henry, Anglesea.
Harper, Alexander Fleming, Dublin.
Heatly, Robert John, Dalkey, co. Dublin.
Irvine, John James, Dublin.
McGuinness, John Henry O'Dowd, Dublin.
McMullan, John, Dungannon, co. Tyrone.
Mallins, John Robert, Dublin.
Mitchell, Katherine, London.
Mitchell-Swaagman, Julia Caroline, London.
O'Reilly, Matthew, Dublin.
Tate, Robert James, Manorhamilton.
Walker, William Henry Stoney, Glasgow.
Whitfield, David Williams, Chirk, North Wales.
Yarr, Michael Thomas, Dublin.

For the Licence to practise Midwifery—

Bourke, Edmond MacWilliam, Curraghleagh, co. Galway.
Chandlee, Sydenham Davis.
Cooper, Austin Nathaniel.
Crimmin, John.
Evans, Owen Henry.
Harper, Alexander Fleming.
Hayes, Alfred Adolphus, Cheltenham
Heatly, Robert John.
Irvine, John James.
McGuinness, John Henry O'Dowd.
McMullan, John.
Mallins, John Robert.
Mitchell, Katherine.
Mitchell-Swaagman, Julia Caroline.
Scroggie, William Reith, co. Down.
Tate, Robert James.
Walker, William Henry Stoney.
Whitfield, David Williams.
Yarr, Michael Thomas.

At a Special Examination held on Thursday, July 6, the following candidate received the Licence to practise Midwifery:—

Campbell, Richard, M.D. Q.U.I., Millisle, co. Down.

The following Licentiate in Medicine of the College having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of 1878, has been duly enrolled a Member of the College:—

Tobin, Richard Francis, Licentiate 1874, Surgeon-Major A.M.D.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 13:—

Duff, Charles Henry, 201, Gray's-inn-road.
Howse, Percy William McDowall, London Hospital.
Muncaton, Alfred, Lydiard, St. Lawrence.
Parkinson, Charles Joseph, Manchester.
Parsons, Charles William, The Crescent, Copland-road, Hackney
Reynolds, James Jones, Stoke-by-Clare, Suffolk.
Ryan, Thomas, Scarborough.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Langs[illegible] John James, the London Hospital.
McDo[illegible] William Frederick, Westminster Hospital.
Wingra[illegible] Harold W., Middlesex Hospital.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Staff-Surgeon John Black Nicoll, M.D., promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of July 8, 1882—Fleet-Surgeon James Fitzgerald Parr has been placed on the retired list of his rank from the 17th inst.

BIRTHS.

BARNES.—On July 16, the wife of Robert Barnes, M.D., of a daughter, stillborn.

COATS.—On July 14, at 7, Elmbank-crescent, Glasgow, the wife of Joseph Coats, M.D., of a daughter.

DALY.—On July 12, at 185, Amhurst-road, Hackney Downs, the wife of Frederick H. Daly, M.D., of a son.

DUNLOP.—On July 10, at St. Helen's, Holywood, co. Down, Ireland, the wife of Archibald Dunlop, M.D., of a daughter.

HEELAS.—On July 9, at Buckhurst, Primrose Hill-road, Hampstead, the wife of James Heelas, M.D., of a daughter.

NEILL.—On July 17, at 3, The Terrace, Ryde, the wife of Channing Neill, M.D., of a son.

PARNELL.—On July 15, at Forest Hill, S.E., the wife of G. C. Parnell, M.R.C.S., of a daughter.

ROBERTSON.—On July 12, at The Friarage, Penrith, the wife of J. D. Robertson, M.D., of a son, stillborn

WHITE.—On July 14, at Fletcher House, Tottenham, the wife of O. M. White, M.R.C.S., of a son.

WOOD.—On July 12, at Lees Lodge, Yalding, Kent, the wife of E. J. Wood, M.B., of a daughter.

MARRIAGES.

BALLARD—DAVIDSON.—On July 13, at Tywardreath, Cornwall, Edward George, son of Edward Ballard, M.D., F.R.C.P., to Catherine Eugenie, daughter of James Davidson, Esq., of Tywardreath.

BREMNER—GRAHAM.—On July 12, at Christ Church, Albany-street, Harry J. Bremner, Lieut. Royal Munster Fusiliers, eldest son of John Traill Urquhart Bremner, Deputy Inspector-General of Hospitals and Fleets, Chatham and Walmer, to Edith, daughter of John Graham, Esq., of Enniskillen, Ireland.

COLDSTREAM—BROOK.—On July 12, at Hillhead, Glasgow, Alexander E. Coldstream, M.D., F.R.C.S., of Newington, Edinburgh, to Margaret Mary, daughter of George Brook, Esq., of Greenland, Truro.

MACLEOD—MAJORIBANKS.—On July 11, at Scatby, Carlisle, M. D. Macleod, M.B., Medical Superintendent East Riding Asylum, Beverley, to Daisy, youngest daughter of the late Samuel Majoribanks, Esq.

OTTLEY—THORNE.—On July 13, at Southsea, Surgeon John Ottley, R.N., to Katie Coppinger, daughter of James Lyon Thorne, R.N., of Somerset House.

WRIGHT—BATEMAN.—On July 12, at St. Saviour's, Aberdeen Park, N., Christopher St. John Wright, M.B., M.R.C.S., of Priors Marston, Warwickshire, to Agnes Louisa, daughter of the late Henry Bateman, F.R.C.S., of 13, Canonbury-lane, N.

DEATHS.

COTTON, JOHN, M.D., Inspector-General, at Royal Naval Hospital, Stonehouse, on July 12.

DICKIE, GEORGE, M.D., F.R.S., Emeritus Professor of Botany, at 16, Albyn-terrace, Aberdeen, on July 15.

DODGSON, HENRY, M.D., at Derwent House, Cockermouth, on July 10, aged 49.

HARVEY, RICHARD SUTTON, J.P., F.R.C.S., at St. Mark's-terrace, Lincoln, on July 16, aged 79.

SILVEE, ALEXANDER, M.A., M.D., M.R.C.P., Physician to Charing-cross Hospital, at Upper Tooting, on July 16, aged 41.

WIGHT, ROBERT, M.D., at St. John's, Canada East, near Montreal, on June 28, in his 69th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CUMBERLAND INFIRMARY, CARLISLE.—AN Assistant House-Surgeon. Salary £60 per annum, with board, lodging, and washing. Applications, with testimonials, to be sent in to the Committee not later than July 25.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary £100, with free board and lodging. Candidates must be Fellows or Members of the Royal College of Surgeons of England, Edinburgh, or Dublin, or of the Faculty of Glasgow, and Licentiates of the Royal College of Physicians at London, Edinburgh, or Dublin, or Licentiates of the Society of Apothecaries, or graduates in medicine of a recognised university. Further particulars can be had by applying to Mr. C. Rowlandson, Honorary Secretary, The College, Durham, by whom applications, with testimonials, will be received up to July 24.

EAST SUFFOLK HOSPITAL.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing. Candidates must be single men, qualified both in medicine and surgery, and registered medical practitioners according to the provisions of the Medical Act. Applications, with testimonials, must be sent to the Secretary on or before July 26.

FLINTSHIRE DISPENSARY.—House-Surgeon. Salary £100 per annum, with furnished house, coals, and gas. Candidates must be registered, possessed of a medical and surgical qualification, and conversant with the Welsh language. Applications, with testimonials, to W. T. Cole, Hon. Sec., Board Room, Bagill-street, Holywell, on or before July 24.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer and Resident Surgical Officer. The salary of each will be £130 per annum, with board and residence. Candidates for the office of Resident Medical Officer must be graduates in medicine of a university examination. For the office of Resident Surgical Officer they must be Fellows or Members of the Royal College of Surgeons in London, Dublin, or Edinburgh, and also possess a medical qualification entitling them to be registered. Applications, accompanied by certificates of registration, or diplomas, and testimonials, to be sent to W. T. Grant, House-Governor, on or before July 31.

HARTLEPOOLS HOSPITAL.—House-Surgeon. Salary £80, rising £10 a year until it reaches £100 a year, with board, lodging, and washing. Candidates must be doubly qualified and registered. Applications and testimonials to J. Rawlings, Esq., The Hospital, Hartlepool, on or before July 24.

ROYAL ISLE OF WIGHT INFIRMARY, RYDE.—House-Surgeon and Secretary. Salary £50 per annum, with board, lodging, and washing. Candidates must be single, possess a surgical diploma, and be registered according to the Medical Act. Applications, with testimonials, to be sent in before August 8.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Alnwick Union.—Mr. R. T. Manson has resigned the Howdon District: area 5966; population 8910; salary £22 per annum.

Bideford Union.—The Northam District is vacant by the death of Dr. Charles Pratt; area 8631; population 4375; salary £24 per annum.

Cockermouth Union.—The offices of Medical Officer for the First Cockermouth District, and for the Workhouse are vacant by the death of Dr. Henry Dodgson: area 43,371; population 8814; salary £30 per annum; salary for the Workhouse £30 per annum.

APPOINTMENTS.

Pocklington Union.—A. H. Boissier, L.R.C.P. Lond., M.R.C.S. Eng., to the First Pocklington District.

Scarborough Union.—Ambrose W. Deeley, L.K.&Q.C.P. Ire., to the Sherburn District.

Belmin Union.—Charles Williams, L.S.A., to the First District.

East Ward Union.—George E. Vivian, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Aine District.

Horncastle Union.—John M.C. Walker, B.M., M.C., to the Eastern District and the Workhouse.

Kington Union.—Arthur G. R. Harris, L.R.C.P. Lond., M.R.C.S. Eng., to the Pembridge District

Malton Union.—William Gimson Gimson, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., to the Wickham Bishops District.

Newtown and Llanidloes Union.—Charles Gowan, M.D., C.M. Edin., L.R.C.S. Edin., to the Newtown District.

APPOINTMENTS FOR THE WEEK.

July 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

24. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

26. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 11 a.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

28. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's Ophthalmic operations, 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College by Mr. Lister, 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College), 8 p.m. Annual General Meeting.

STATISTICS OF PRUSSIAN HOSPITALS, 1877-80.—In 1877 there were treated 206,718 persons (143,191 males and 63,527 females), of whom there died 19,170 (or 9·28 per cent.)—viz., 12,019 males (8·39 per cent.) and 7151 females (11·26 per cent.). In 1878 there were treated 238,240 persons (165,918 males and 72,322 females); there died 22,316 (9·37 per cent.)—viz., 14,242 males (8·58 per cent.) and 8074 females (11·16 per cent.). In 1879 there were treated 267,373 persons (188,993 males and 78,380 females); there died 22,997 (8·60 per cent.—viz., 14,407 males (7·66 per cent.) and 8830 females (10·88 per cent.). In 1880 there were treated 280,879 persons (194,089 males and 86,790 females); there died 24,488 (8·72 per cent.)—viz, 151,120 males (7·79 per cent.) and 9368 females (10·79 per cent.). So that, while the number of females under treatment was considerably less, their mortality was considerably higher, which may be in part explained by the men applying at the hospitals for slighter ailments than is the case with women. —*Deutsche Med. Woch.*, June 24.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Alpine Altitudes.—A health station for patients suffering from pulmonary consumption is to be erected on the summit of the Schwarzhorn, in the Grisons, at an elevation of rising 3100 metres. The hotel, which is to bear the name of "Adlerhorst" (eyrie), will be built to accommodate 200 guests, and be accessible by a narrow carriage-road, as well as by a wire-cord tramway. The construction of the hotel is to be proceeded with at once, and the house is to be ready for occupancy in two years. The necessary capital has been subscribed.

The Society of Chemical Industry.—The first annual meeting of this Society (founded last year at a meeting in London was opened last week at Manchester. The membership already numbers 1140 persons, including gentlemen connected with the most widely differing departments of industrial chemistry throughout the kingdom.

Visiting Sick Strangers late at Night.—About eleven o'clock, a few days since, a woman called at the residence of Dr. Whitelaw, of Kirkintilloch, and requested him to go with her to the house of a sick person requiring his advice. The doctor unsuspectingly complied, and when he had got to a dark part of the road on which they were going, two men sprang upon him, and the woman took part in the attack. The doctor, a powerful man, struggled with his assailants, but was rendered helpless by the fracture of one of his legs. He was then robbed of all the valuables he had about him, and the thieves made off. The police have traced the latter to Glasgow.

Cremation.—A Bill authorising the practice of cremation is about to be presented to the French Chamber of Deputies, and will, it is said, be influentially supported.

A Guardian.—Touching the decision of the Manchester Board of Guardians that it would be expedient to have the election of Guardians once every three years, instead of annually as heretofore, the Local Government Board has issued an order directing that a poll of the property-owners and ratepayers shall be taken, with a view of ascertaining their opinion in the matter. In accordance with this order, the Clerk to the Guardians has issued the necessary voting-papers.

A Student.—The using of bicycles in the parks is prohibited, under the regulations of 1872, by virtue of the Parks Regulations Act.

Protection of Young Girls.—The Report of the Select Committee of the House of Lords to inquire into the state of the law relating to the Protection of Young Girls, establishes the fact of the existence of a trade in girls between this country and Belgium for immoral purposes. The Committee also prove that juvenile immorality is alarmingly on the increase, and that cases are known of children following the profession of prostitutes from an incredibly early age. They recommend that the age of irresponsibility in girls should be raised; that persons shall be guilty of a misdemeanour who harbour girls under seventeen for immoral purposes; that girls under sixteen soliciting in the public streets shall be sent to industrial schools; and that the enforcement of the law shall be more rigorous in the case of street-walking.

A Legal Power Long Needed.—The coroner's jury, in returning a verdict of "accidental death" on the bodies of the two men killed by a boiler explosion at Calf Hey Mills, Bacup, recommended the compulsory periodical examination of steam boilers.

Worthy of Imitation.—A recommendation of the Hospital Building Committee of the Salford Board of Guardians, that the architect of the new hospital be instructed to prepare plans for the erection of a greenhouse in the grounds of the institution, was adopted. The Chairman stated that he believed liberal contributions of plants and shrubs would be received. The intention was to use those plants for the purpose of decoration in the infirmary wards, and thus contribute to the comfort of the inmates. A greenhouse at a cost of £150 or £200 would, it was stated, meet the requirements of the case.

Our Boys.—The Government Inspectors of Explosives complain of the encouragement given to the making of fireworks by amateurs by the publication, in papers professing to be written for boys, of directions for making fireworks; and with some justice when instructions respecting the manufacture of even that highly dangerous explosive "iodide of nitrogen" are given to the youthful subscribers.

Sea-Water Baths for Small-pox Patients.—In the medical circles at San Francisco it is believed that cold sea-water baths are beneficial to small-pox patients. This opinion is attributed to the extraordinary recovery of sixteen men suffering from this disease who were nearly drowned in the bay in consequence of the upsetting of a boat conveying them to the hospital from the vessel in which they were attacked. When they were rescued it was thought that death would be inevitable, more especially as the patients after their extrication from the water were exposed for an hour to a cold wind in their wet clothing. Instead, however, of dying, every one of the sufferers recovered with a rapidity described as "truly astonishing." They had been discharged from the hospital, and were in perfect health.

A New Children's Hospital, Derby.—Mr. Bass, M.P., last week laid the foundation-stone of this institution.

Dr. Muirhead Macfarlane.—This gentleman, a retired Army surgeon, about fifty years of age, while bathing a few days since in the Holy Loch, near his house at Sandbank, Firth of Clyde, was observed from the shore to be splashing about in an unusual manner. A man rushed into the water, and, finding him unconscious, brought him on shore. Dr. Wilson, of Kirn, who was soon in attendance, pronounced that life was quite extinct; the deceased had had a fit whilst in the water. He was well known and much respected in the district.

F. F., Essex.—The Select Parliamentary Committee on the Contagious Diseases Acts have decided not to hear any additional evidence. The Committee will reassemble in three or four weeks to consider its report.

The Metropolitan Drinking Fountains and Cattle Troughs.—It is satisfactory to observe that there was a considerable increase of both fountains and troughs in the metropolis during the past year. These provide a public convenience both for man and beast, the appreciation of which is demonstrated by the fact that it was estimated that not less than two hundred and fifty millions of visits for drinking purposes were paid to them during the year. In the metropolis there are now in use 497 fountains and 502 troughs. The increase last year was forty-five of the former and eighty-seven of the latter.

Cheese- and Butter-making, Cheshire.—An association has been formed at Chester, with the Duke of Westminster as President, for improving cheese- and butter-making. It is hoped the Duke will allow one of his cheese factories to be used as a dairy school, where the newest methods of dealing with milk may be learned.

Heriot's Hospital, Edinburgh.—It is proposed to erect a swimming-bath at this institution, at an estimated cost of £1800.

Triennial Election of Poor-law Guardians.—The Tenterden Board of Guardians has passed a motion in favour of triennial election, and providing for the annual sectional retirement of one-third of the Board, with a view of its yearly reconstruction on such a system. They have resolved to petition the Local Government Board to allow them thus to conduct their elections in future. The request appears to be reasonable, but has the central authority power to grant it?

The Census, United States of America.—The Government employed many women in the work of compiling the census of 1880. The British Secretary of Legation at Washington (Mr. Drummond) certifies to the fact that they were found "to perform their duties with fidelity and capacity." The census is described as "one of the most complete ever attempted."

Loyalty and Sympathy.—The ladies of Blackheath, desirous of expressing in some practical manner their feeling of loyalty and sympathy with the Queen on the attempt by Maclean on Her Majesty's life, set on foot a subscription, and a large sum has been collected, which will henceforth be known as the "Victoria Benefit Fund." The interest is to be applied by trustees to provide for the admission of free patients to the Blackheath Cottage Hospital.

Jerry Building, Leytonstone.—The newly appointed surveyor to the Local Board has discovered that, out of a number of houses now in course of erection in Leyton and Leytonstone, no fewer than 150 are in contravention of the by-laws. The mortar used was almost entirely composed of mud. The Sanitary Committee have taken action in the matter, and also examined the plans of other new houses and shops proposed to be built, and found that, out of 162 of them, only seven were in conformity with the by-laws. The remaining 155 were not allowed to be proceeded with, whilst, as respects the first-named 150, pure mortar has been insisted upon, under a threat of the works being stopped.

COMMUNICATIONS have been received from—

The Registrar of the Apothecaries' Hall, London; The Secretary of the Richmond Hospital; Dr. Willoughby, London; The Editor of the "New York Medical Journal and Obstetrical Review"; The Secretary of the Association for the Advancement of Medicine by Research, London; The Secretary of the Sanitary Institute of Great Britain, London; Mr. J. Chatto, London; The Secretary of the Society for the Relief of the Widows and Orphans of Medical Men, London; Dr. Francis Warner, London; The Secretary of the Quekett Microscopical Club, London; Sir Edmund A. H. Lechmere, London; Dr. J. W. Moore, Dublin; Dr. Angel Money, London; The Secretary of the Royal Institution of Great Britain, London; Dr. B. Howard, London; Mr. Cowell, London; Mr. Hawksley, London; Mr. W. D. Wilkes, Salisbury; Dr. Steele, London; Mr. James Wyld, London; Dr. Gibson, Edinburgh; Mr. Knowsley Thornton, London; Dr. R. Saundby, Birmingham.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrifte—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Gazzetta degli Ospitali—Weekblad, etc.—Centralblatt für die Medicinischen Wissenschaften—Dublin Journal of Medical Science—New York Medical Journal—Philadelphia Medical Times—Journal of the Vigilance Association—Revue des Sciences Médicales—Morningside Mirror—Therapeutic Gazette—Maryland Medical Journal—Journal of the British Dental Association—Journal of Anatomy and Physiology—Canadian Journal of Medical Science—Revue de Médecine—Australian Medical Journal—Brain.

ORIGINAL LECTURES.

CLINICAL LECTURE ON A CASE OF STRICTURE OF THE ŒSOPHAGUS,

IN WHICH ŒSOPHAGOSTOMY WAS PERFORMED.

By T. HOLMES, F.R.C.S. Eng.,
Surgeon to St. George's Hospital.

I HAVE to call your attention to-day to a very interesting case of stricture of the œsophagus, in which I performed an operation quite novel to myself, and which has, I believe, as yet, been only very rarely practised. I mean that of making a permanent opening in the œsophagus below the stricture for the introduction of food into the stomach—an operation called *œsophagostomy*, to distinguish it from the more ordinary operation of *œsophagotomy*, in which the œsophagus is opened with a view of removing a foreign body. The operation has, I believe, been performed in a few cases both in this country and in Germany;(a) but I have not met with the accounts of the cases, and cannot tell you, therefore, anything of either the details or results of the operation. It is evidently one that cannot be very often advisable or successful. But the experience of the present case convinces me that there are some instances of malignant disease where the proceeding is feasible, and may be much superior to gastrostomy.

I will first give a brief outline of the case. The man, Jesse M., was an agricultural labourer, of temperate habits and good health. His exact age is not given, but he was about fifty. Five months ago he had felt a hard lump in the neck, about the size of a bean. This increased in size rapidly, and he noticed that he began to find it difficult to swallow, and that he was losing flesh. When admitted, in the month of April, there was a swelling, lying over the right ala of the thyroid cartilage, and apparently connected with that cartilage, movable on the vertebral column. The whole larynx seemed somewhat pushed over to the right. No distinct hardness could be made out behind the larynx, nor was there any enlargement of the cervical glands. An attempt was made on one or two occasions to pass an instrument down the œsophagus; but though various forms and sizes were tried, they were always arrested at the commencement of the œsophagus. He could only swallow with great difficulty, and in very small quantities, fluid, or very soft pulp. The whole neck looked full, but there was no other definite tumour. Laryngoscopic examination showed but little; for the epiglottic folds seemed to have fallen over towards the middle line, and the arytænoid cartilages to be displaced horizontally, so that the interior of the larynx could not be illuminated; but there was no dyspnœa nor any alteration in the voice. On July 1, when he had been in the house over a month, he was evidently getting weaker, though his weight had not much diminished. The swelling was also growing larger, and an enlarged gland had showed itself on the left side of the neck. A consultation was now held, and my colleagues concurred with me in the opinion that the disease did not probably extend low down, and that it was most likely that the œsophagus could be opened below it, and possibly could be drawn up to the skin, and that on the whole this operation was preferable to that of opening the stomach. The disease was believed to be epithelioma, probably infiltrating the œsophagus, and spreading into the tissues external to the larynx.

The operation was performed on July 3. An incision was made from the left sterno-clavicular joint along the edge of the sterno-mastoid, to the level of the hyoid bone, the cervical fascia opened, the carotid sheath drawn aside with the muscle, and the sterno-hyoid and sterno-thyroid muscles displaced inwards. It was afterwards found necessary to divide these muscles on a director. Thus the trachea was freely exposed, and an attempt was made to separate it from the œsophagus with the finger and director; but this attempt was only partially successful, on account of the way in which the two tubes were matted together above. The large size of the thyroid body was also a source of considerable embarrassment, for it was very vascular, and any attempt to displace it upwards produced hæmorrhage, which, in the man's weak condition, it was very desirable to avoid. At length the œsophagus was defined, and was got so far free of the trachea that it could be exposed and opened by the side of that tube, though it could not be drawn to the skin without great risk of rupturing its walls. Accordingly, it was opened *in situ*, two silk ligatures having been put through it, which attached the lips of the opening loosely to the skin. An india-rubber tube with a shield (like a large tracheotomy-tube) was then put in, the lumen being large enough to allow a small stomach-pump tube to be passed through it if necessary.

The operation was almost bloodless. Only a very little blood was lost from the vascular thyroid body, when attempts were made to displace it. The veins and arteries proceeding to and from this body, which were in the way, were included in two ligatures, and divided between them. The man was very comfortable after the operation, and spoke in his natural tone. Two hours afterwards, an india-rubber tube attached to a glass funnel was passed through the œsophagus-tube, and about four ounces of fluid food introduced into the stomach. He was thus fed with perfect comfort every three hours, and later on more frequently, as his weakness became alarming. Very little of the food was rejected. He slept with a morphia injection for three hours, and seemed very comfortable next day, except for the dryness of the tongue, which was relieved by sucking small pieces of ice; but next day, though he had slept more, he was very evidently sinking—his pulse 150, and very small. He was quite conscious and free from pain, but so weak that he soon lost consciousness, and fell into a kind of doze. He rallied from time to time as food was given to him, but sank quietly on July 6, at 12·45 p.m., about three days after the operation.

On post-mortem examination all the parts about the wound were found perfectly quiet, and union seemed going on well. The opening had been made about an inch below the lower edge of the thyroid body, and the recurrent laryngeal nerve lay quite close it—almost in contact with one of the ligatures passed through its lip—but had not been touched or injured in any way. The stomach was full of undigested food. The main tumour occupied the site of the right great cornu of the hyoid bone, which seemed lost in its substance. It was adherent to the thyroid cartilage also. In structure it resembled epithelioma to the naked eye, but there has not, of course, been any opportunity as yet for exact microscopic examination. The thyroid body, which was very large, was infiltrated in its deeper portions with a similar whitish deposit, and this had implicated the coats of the œsophagus so as to produce considerable constriction. On passing the end of the little finger down, it felt at first as if the food tube was closed; but by steady pressure the finger could be forced through it.

So much for the details of this case. I think it shows that the operation was justifiable and might have been successful in its object; though it shows also plainly enough that it ought to have been performed earlier, if at all. I can only plead that I was somewhat doubtful of the propriety of the proceeding, and lost time in making up my mind, and in trying the other course, of catheterisation.

As to this, you will notice that after death I could force the point of my little finger through the stricture, and I am not sure that this could not have been done during life, under anæsthesia. But the attempt would have been very dangerous, and might easily have ended in disaster; nor could it have produced any good unless the tube had been left in permanently. To irritate a cancerous stricture (as I believe this was) by frequent passage of instruments can only do harm. Thus Billroth—writing, no doubt, some years ago—says, "the daily dilatation with the bougie for carcinomatous strictures is the only thing that we can do to preserve the patient from death by starvation. I am certain, however, that this daily stretching and irritation of the carcinoma hastens its softening."(b) We have now learnt that the

(a) Since this lecture was delivered I see a case mentioned in the *Lancet* July 15, 1882), in which a similar operation was performed by Mr. Reeves, and a reference to a paper recently read by that gentleman at the Clinical Society.

(b) "Clinical Surgery," translated by Dan', page 125.

œsophagus will, at any rate sometimes, tolerate the prolonged retention of a tube; but in the case before us, the passage of the tube having been found impracticable without a dangerous amount of force, there remained only the alternative between opening the stomach or the œsophagus—if anything was to be done.

Now, the opening of the œsophagus seems to me a much less dangerous operation, if once its anatomical difficulties are got over, and I am confirmed in this opinion by the experience of cases of cut throat. I have seen a man who had made a wound into his œsophagus resulting in a permanent fistula large enough to prevent all natural alimentation, but who could easily pass the tube of a stomach-pump, and who fed himself thus for a very considerable time till he passed out of notice. If my unfortunate patient had been able to survive the operation and retain the instrument until the opening in the œsophagus had become permanent, I see no reason why he should not have got into exactly the same condition.

But the anatomical difficulties of the operation are certainly serious. It is not possible to be sure of the extent of the disease in the œsophagus; and though, of course, an opening might possibly be made through a part infiltrated with disease, yet such a proceeding would be very unsatisfactory. The proximity of the recurrent laryngeal nerve is another element of danger, though I do not think it is a serious one. And so is the presence of the numerous vessels of the thyroid body. These dangers are best avoided by great deliberation in the dissection; so that the nerve, if seen, can be drawn aside, and the vessels ligatured in two places, and divided, as was done in this instance. Another objection is the difficulty that may exist in drawing up the œsophagus to the skin—a difficulty which was found in this case insuperable.(c) How far this would have proved an obstacle to the successful treatment of the case, the man's death on the third day prevented me from judging. It was my intention to leave the india-rubber canula in position for at least a week; and I hoped that by that time the parts would be sufficiently consolidated to allow us to change it for another, without any trouble, and so that the man could wear the canula permanently, and thus easily feed himself.

On the whole, the case convinced me of the feasibility of the treatment, and has led me to think that it is superior in many respects to gastrostomy, though its range of application may be more limited. Further experience will no doubt soon show surgeons what the relative merits of the two operations are.

Excessive Sweating of the Feet and Hands.—Prof. Duhring, referring to a case of this affection in his clinic (*Philadelphia Med. Reporter*, July 1) pointed out that the soles of the feet exhibited a whitish, macerated, and somewhat excoriated appearance, most marked about the heels, where minute beads of sweat could also be detected; the palms of the hands were also similarly affected. For this he ordered the following preparation of salicylic acid—viz., salicylic acid four parts, starch six parts, and silicate of magnesia (the Venetian talc of the shops) ninety parts. This powder has been extensively used abroad, especially in the Prussian army. If the case did not improve under this in a week or two, the tincture of belladonna would be applied twice a day—a remedy which in many cases has produced remarkable effects.

Fracture of the Os Hyoides. — Dr. La Roe relates an example of this rare accident (*New York Med. Record*, April 15) which occurred in a working-man aged twenty-seven, of slight build, who, after recovering from an attack of tonsillitis, felt, while enjoying a good "gape" on getting up one morning, something snap just below the right side of the lower jaw, a slight swelling appearing there immediately afterwards. Great pain ensued, especially on swallowing the saliva, and touching the part externally caused intense suffering. However, it was ascertained that there was crepitation from a fracture of the right cornu of the hyoid at its junction with the body of the bone. The treatment was purely expectant, for the patient could bear nothing externally or within his mouth, and a chief difficulty arose in keeping him alive for the fortnight or so required for reparation, owing to his inability to swallow otherwise than *guttatim*, and then only with intense suffering.

(c) I see that it was the same with Mr. Reeves's case.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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Lecture X.

B.—ORGANIC AFFECTIONS.

I.—Those defined by Uniform Causes.

1. *Parasitic Affections of the Skin.*

B. *Cutaneous Affections due to the presence of Animal Parasites.* (*Skin Diseases caused by Dermatozoa and Epizoa.*)

These diseases have certain characters in common.

1. They are of course all dependent upon the presence of animal parasites, which flourish at the expense of those whom they attack.

2. They are all contagious, although none of them are infectious, *i.e.*, actual contact is necessary in order to the transmission of the parasites or their ova.

3. All persons are not equally liable to be affected, certain soils, as in the case of the vegetable parasites, being more suitable for the development of animal parasites than others; half-starved, debilitated, and broken-down subjects being specially, though far from exclusively, amenable to their influence.

4. All of them are associated with much itching, especially at night, to relieve which the patients scratch themselves unmercifully; an eruption results, which presents the following characters. The marks of the nails are more or less distinctly visible on the skin in the form of white or red, or excoriated streaks, the excoriations being studded with droplets of coagulated blood; in addition to these, papules are developed, the summits of which are torn by the nails, and little drops of serum or blood exude, which coagulate upon them. The long-continued congestion of the skin, also, induced by the scratching, leads to an increased deposit of pigment in the mucous layer of the epidermis, and the skin therefore assumes a dusky or brownish tint. The picture, which the skin thus presents, resembles somewhat closely that observed in the genuine prurigo of Hebra, afterwards to be described (indeed, in it the appearances are also in great measure due to the scratching), and hence I am in the habit of calling such an eruption a "pruriginoid eruption." By a "prurigineid eruption," then, I mean one produced by the nails of the patient in scratching, no matter what the source of the itching may be.

5. One attack of an animal-parasitic skin-disease affords no security against another on a fresh exposure to contagion; hence the necessity for not only treating the patient who presents himself, but also any of his friends who are in the habit of coming in contact with him, and who are similarly affected. Neglect of this precaution leads often to great disappointment, both on the part of patient and doctor, and a disease which might otherwise be cured in a few days, may continue to pester a household and to render its inmates miserable for an indefinite period of time, illustrations of which I have frequently met with.

6. They are all curable by the use of external applications which kill the parasites, such as ointments of sulphur, Peru, and styrax, although general remedies in addition are not to be overlooked, if any special deterioration of the health is manifest.

The principal varieties of animal-parasitic skin-diseases may be classed under the head of

1. Scabies.

2. Pithiriasis.

1. *Scabies* (the Itch)—*Parasite*, Acarus Scabiei.

This is a highly contagious disease, especially if there is any deterioration of the general health, and in persons who are inattentive to cleanliness: it is pretty sure to be communicated by sleeping with, or on the beds of, persons who are affected, or by coming much in contact with them in any way; hence we often find it communicated from the hands of nurses to the hips of infants. It may also be transmitted from the lower, particularly domestic, animals, such as cats—a circumstance which must be kept in view, else all our

efforts to exterminate the disease may prove unavailing. It is oftener met with in winter than in summer, because the lower classes then herd more together to keep themselves warm; and males are much more frequently attacked than females, because they more frequently occupy strange beds, and are thus more frequently exposed to contagion.

The following are the *characters of the parasite.*

The *female* Acarus is from one-seventh to one-fourth of a line in length, and from one-tenth to one-sixth in breadth; it is almost egg-shaped, and broader anteriorly than posteriorly. Its head projects considerably beyond the body, its edge being rounded, and with a central fissure corresponding to the mouth, which is provided with mandibles, on each side of which are several hairs. The body is marked by numerous nearly parallel lines, and the dorsal surface, which is convex, is provided with numerous little angular spines, as well as little round tubercles from each of which springs a small conical spine: two hairs project from each side of the body, and four posteriorly. It has eight legs, four of them being situated posteriorly, and four anteriorly, there being two on each side of and close to the head. Each is composed of several jointed segments, which are conical in shape and taper towards the point. From the extremity of each posterior leg projects a long curved hair, while the four anterior ones are provided with stalked suckers, and with several small hairs springing from close to the root of each sucker.

The *male* Acarus is considerably smaller; the wavy lines on its body and the dorsal spines are less numerous; the inner pair of posterior legs are provided, like the outer ones, with suckers which are made use of in the act of copulation, and the parts corresponding to the genital organs between them are very distinctly marked.

The *larva*, or young Acarus, is smaller than the male, and has only two hind legs, instead of four, which are provided with hairs, and there are comparatively few bristles. Sometimes the full-grown insect with eight legs may be seen within its old six-legged skin. The adult Acarus is only developed after three moultings.

The *eggs* vary much in size according to their age, and the length to which the progress of development has gone: on an average they are about one-twenty-fifth of a line broad and one-eleventh long. In the earliest stage the egg is filled with granular matter, and as it increases in size its contents seem to shrink, to recede from the shell, and to have a distinct enveloping membrane: they have a bright yellow colour and granular appearance, contrasting strongly with the clear, smooth, almost colourless walls of the egg-shell without. Soon after this the head and legs of the Acarus become distinct, and at last the whole parasite within the shell. Finally it makes its escape, and the shrivelled-up shell remains, usually marked by two longitudinal slits made by the parasite in gaining its freedom.

The following are the *habits of the female Acarus.* When placed upon the skin, it seeks a suitable spot, having a preference for tender parts, and often selecting the orifice of a hair follicle, and then, its head directed at right angles to the surface, and supporting itself by means of the bristles which project from its posterior extremity, in less than half an hour it penetrates to the deeper layers of the epidermis, where it lies embedded, and caters for its support. If impregnated, as is usually the case, an egg is soon laid, to make room for which it burrows a little further. A new egg is laid on an average each day, oftener at first, seldomer as it gets exhausted, and each time it penetrates further, leaving its deposited eggs to occupy the space formerly inhabited by itself. The length of time elapsing between the laying and hatching of an egg varies, according to different observers, from five days as a minimum, to fourteen as a maximum, and at all events it is rare to find more than fourteen eggs in one canal, though there may be many egg-shells. On cutting out one of the canals (*cuniculi*), and examining it with the microscope, the female insect is found at the further extremity (an egg being often apparent within it), and behind it its eggs in various stages of development, those nearest the Acarus being in the most primitive condition. These are surrounded by little irregular blackish spots, which are supposed to be the excrement of the Acarus. The canals are usually from half a line to three lines long, but they are often much longer than this, and in any case they have a tendency to take a more or less serpentine and irregular course: they are not unfrequently seated on an inflamed elevation, or on the upper wall of a vesicle or pustule, the inflammatory action resulting from the irritation of the Acarus, and being most marked near the point where it lies embedded. On examination of the cuniculus with the eye or with a hand-glass it is seen to have a dotted appearance, a feature which has been variously interpreted. Hebra held that it is due to the presence of particles of dirt; Hardy and Bazan that it is dependent on the fæces of the Acarus shining through the epidermis; while Gudden, Bourguignon, and others are of opinion that the dots are little orifices, which are supposed to act the part of air-holes, and that it is through these the young Acari escape. The following is, however, a more likely mode of exit:—The direction of each cuniculus is oblique, the portion first formed being nearest the surface; hence, as the old epidermis exfoliates, the first laid eggs gradually approach and finally reach the surface, while the recently deposited ova, owing to the oblique direction of the canal, still remain covered by the epidermis. In this way the eggs reach the surface just about the time when the young ones leave the shell.

At the extremity of the cuniculus a minute whitish elevation is often seen, especially after washing the skin if it is dirty, which is the parasite covered by a layer of epidermis: it can be readily removed by gently raising the epidermic covering with a penknife, and inserting the blunt point in the direction of the Acarus, which, if not injured, usually grasps it, and is thus removed. We can generally tell, even without the aid of the microscope, whether it is the insect or merely a piece of epidermis which is adhering to the knife, for the former has a rounded outline, and a pearly translucent appearance, readily appreciable to the naked eye.

After the female has entered its canal it is unable to recede, owing to the little dorsal spines which project backwards, and it dies after it has finished laying its eggs, the probable duration of life being from three to four months.

The *unimpregnated female* generally crawls upon the surface of the epidermis; while the *larva*, like the impregnated female, burrows into the skin, but more deeply, and therefore produces more irritation, so that a vesicle frequently results.

The *full-grown male* generally goes about free on the surface of the epidermis, though some say that it occupies a small hole in the cuticle, somewhat like the larva, without, however, producing so much irritation.

While the itch insect and its furrows may be found on any part, it has certain seats of predilection, viz., where the is not only warm, but also delicate and easily penetrable. It should be specially searched for on the fingers, especially on their inner surfaces, and on the folds of skin passing from one finger to another, on the fronts of the wrists, and on the penis in the male, and the nipple in the female. It has a special liking, too, for parts which are pressed on or tightly embraced by the clothing; hence it is very commonly found at the seat of garters, trusses, etc., and upon the buttocks of cobblers and tailors, who sit on hard stools, or the like. The feet and umbilicus are likewise usually implicated, while the face and head almost invariably escape.

That warmth is relished by the Acarus is proved by the fact that it remains quite motionless when it is placed upon a perfectly cold glass slide, but immediately begins to move if it is warmed, and that the irritation of the skin is most troublesome when the patient becomes warm in bed.

Itching is a very constant symptom, variable, however, in degree in different persons, and is not confined to the parts where the Acari reside, but is pretty generally diffused all over the body. To relieve this the patient scratches the skin, and produces an artificial eruption, previously described as a pruriginoid eruption (see page 118). This eruption is most abundant, as a rule, on the forearms, lower portion of the abdomen, and inner aspect of the thighs; while the upper arms, upper half of the trunk, and legs, are comparatively free; and in some cases this localisation of the pruriginoid eruption is so striking as to leave little doubt of the diagnosis. In severe cases, especially in children, large pustules appear, particularly on the hands, feet, and hips; on the last situation, according to Hardy, owing to infection conveyed by the hands of nurses affected with the disease while carrying them. When the pustular eruption is a prominent feature, the disease is sometimes spoken of as Scabies purulenta; and when typically present in the situations mentioned, it is almost pathognomonic of Scabies.

In those who have a constitutional tendency to Eczema, eczematous eruptions sometimes make their appearance, which may assume any of the varied forms of that complaint, and which present the same appearances as Eczema occurring from other causes (see description of Eczema). When the eczematous complication is very marked, and is associated with much crusting, the appearances correspond to the variety described as Scabies Norvegica—seu crustosa—seu pecorina, and by the Germans as Borkenkratze.

The *diagnosis* is in general easy. The pruriginoid eruption induced by the scratching is usually most marked on the forearms, lower portion of the abdomen, and inner aspect of the thighs; and when this localisation is typically marked it is of itself almost pathognomonic. Large pustules, when present, are most common on the hands, feet, and hips, and are especially frequent in young children, and in persons with delicate skin. Eruptions on the nipple in the female, and on the penis in the male, are very characteristic as confirmatory of Scabies, while we should search for vesicles and furrows especially between the fingers and about the wrists, and in all doubtful cases should endeavour to find the itch insect in the manner already indicated. Generally, too, there is a history pointing to contagion as the source of the complaint, such as having recently slept in a strange bed, or with some one who had an itchy eruption, and usually other members of the household are found to be similarly affected, particularly those sleeping in the same bed with the patient.

If Eczema occurs as a complication of Scabies, and the patient, as commonly happens, only exhibits the eczematous patches, the primary disorder is apt to be overlooked; hence the importance, in all such cases, of examining the whole cutaneous envelope, when the typical picture of the Scabies eruptions is often discovered; and usually there is a history of contagion, which is of itself suspicious, as Eczema is not communicable. If we are still in doubt, an examination of the eczematous crusts, as suggested by Dr. Hilton Fagge, may clear up the diagnosis. A piece of crust—as much as will lie upon a shilling—is boiled in a solution of caustic soda (half a drachm of the solid hydrate to one ounce of water) until it is in great part dissolved. The fluid is then allowed to settle, when the supernatant fluid is poured off, and the flocculent deposit examined with the microscope: numerous young Acari, and probably also full-grown males, eggs, egg-shells, and the *débris* of these, may often be detected.

The genuine *Prurigo* of Hebra may be mistaken for Scabies, on account of the eruptions produced by the scratching, but the former commences in childhood, and is apt to last on and off for years, or even for life; it is not contagious; the skin is more or less thickly studded with papules which are nearly of the colour of the healthy skin; and the eruptive elements are most abundant upon the legs, and more scanty upon the thighs; the back shows nearly as much evidence of disease as the front of the body, the chest is more affected than the abdomen, and the skin covering the flexures of the joints is rarely involved.

The diagnosis of Scabies from *Phtheiriasis corporis* will be considered in connexion with the description of the latter disease.

2. *Phtheiriasis* (Morbus Pediicularis)—*Parasites*, Pediculi—Lice.

There are three varieties of this affection, each dependent upon a separate parasite, viz.:—

A. Phtheiriasis corporis. . *Parasite*, Pediculus corporis.
B. Phtheiriasis capitis . . *Parasite*, Pediculus capitis.
C. Phtheiriasis pubis . . . *Parasite*, Pediculus pubis.

A. *Phtheiriasis Corporis* (Prurigo Pedicularis).

Parasite—Pediculus corporis (Pediculus vestamentorum), which is met with exclusively upon non-hairy parts.

The following are the *characters* of the parasite:—The head, which is irregularly oval, is jointed to the body, and provided with antennæ, one on each side, each having five joints, and covered with minute hairs, which are also seen at the edges of the head. The body is elongated; the abdominal portion is very broad, its margins lobulated and covered with fine hairs. From the thoracic portion, which is comparatively narrow, there proceed six legs, three on each side; the legs are hairy, and provided with four joints which terminate in claws.

It secretes itself among the folds of the clothing, and only sallies forth to obtain the means of subsistence at the expense of the skin of the wearer, so that when a person so affected is naked, lice are rarely seen upon his body, though numbers may be visible in the folds of the clothes which lie next the skin, especially those parts of them which embrace the neck, waist, and wrists. Here also their nits (eggs) are discovered, which have the appearance of little crystalline, shining, or yellow and opaque bodies. If, however, as often happens, the patient puts on clean underclothing before coming for advice, neither lice nor nits may be found, and thus mistakes are apt to occur, especially as patients often indignantly deny the impeachment of harbouring such loathsome creatures.

But while the insects themselves are not usually discovered upon the skin, their bites can be readily detected, consisting of minute black dots, each of which is surrounded by an areola of inflammation, which is the seat of a serous infiltration, and thus resembles a spot of nettle-rash. On pressure the areola momentarily disappears, but the colour of the bite remains unaffected.

The attacks of the parasite cause itching, while their crawling over the surface leads probably to the creeping sensations so graphically described by some of the martyrs to these little intruders. To relieve the discomfort the patient scratches the skin, and this leads sooner or later to the development of a pruriginoid eruption such as has been previously described (see page 118). The excoriations thus produced are, as a rule, much larger than those due to scratching from other causes, such as scabies, because the inflammatory areola in connexion with each bite is infiltrated with serum, and thus offers very little resistance to the nails of the patient. The pruriginoid eruption, too, is generally met with in greatest abundance on the neck, back, and shoulders, and on those parts which are tightly embraced by the clothing, such as the waist and wrists, where the pediculi are most numerous, but any part of the body may give evidence of scratching. The scratching may also induce the development of papules, pustules, boils, eczematous eruptions, and even glandular enlargements. This affection is generally, though not exclusively, met with among old people, especially in debilitated or broken-down subjects, or in those whose diet is deficient, or who are uncleanly in their habits.

The following tables in reference to diagnosis may be studied with advantage:—

Pruritus senilis.	*Phtheiriasis corporis.*
1. Necessarily occurs in old people.	1. Generally, though not necessarily, in them.
2. Not contagious.	2. Contagious.
3. The eruptions induced by the scratching have no special seats of predilection.	3. Such eruptions usually most abundant about the neck and shoulders, and where the clothing embraces the body tightly.
4. No bites of parasites to be detected on the skin.	4. Spots like nettle-rash discovered, in the centre of each of which the bite of the parasite is seen.
5. No lice or nits to be discovered on the clothing.	5. Pediculi and nits detected in the folds of the clothing.
6. Difficult of cure, and not removed by the use of parasiticides.	6. Easily removed by the use of a parasiticide such as staphisagria ointment.
Scabies.	*Phtheiriasis corporis.*
1. May attack anyone, but the older the patient, the less the liability to infection.	1. Generally attacks old people, especially if badly fed or in broken-down health.
2. Very contagious, and those sleeping with the patient are pretty sure to be attacked.	2. Less contagious; those sleeping with the patient not necessarily affected.
3. Furrows of the Acarus, vesicles, etc., detected especially between the fingers, on the wrists, on the penis of male, and the nipple of the female; and Acari and their eggs detected in the cuniculi, or sometimes in the crusts.	3. Lice and their nits discovered, not generally upon the body, but between the folds of the clothing.

4. The pruriginoid eruption is most abundant upon the forearms, lower part of abdomen, and inner aspect of thighs, as a rule.	4. The pruriginoid eruption generally most abundant about the neck and shoulders, and where the clothing closely embraces the body.
5. In children particularly, large pustules commonly seen, especially on the hands, feet, and hips.	5. Pustules only exceptionally present, and have no special seat of predilection.
Urticaria (Nettle-rash).	*Phtheiriasis corporis.*
1. Not contagious.	1. May spread by contagion.
2. Eruption resembles that produced by the sting of a nettle, is very evanescent, but may recur indefinitely.	2. Nettle-rash-like spots often detected, but in the centre of each the bite of the insect is seen.
3. No lice or nits to be found on the clothing.	3. Lice and nits found between the folds of the clothing.
4. The pruriginoid eruption has no special seat of predilection.	4. Usually specially abundant about the neck and shoulders, and where the clothing embraces the body tightly.
5. Most frequently met with in young persons and children, and no special connexion with debility or broken-down health.	5. Generally met with in old people, whose health is below par.
Prurigo (Hebra).	*Phtheiriasis corporis.*
1. Not contagious.	1. Moderately contagious.
2. Commences usually in early life, and lasts for years, or even on and off for a lifetime.	2. Most common in persons advanced in life, and readily yields to treatment.
3. Eruption most abundant on the legs, the thighs being less affected; the chest is more involved than the abdomen, and the back nearly as much as the front of the body, while the flexures of the joints usually escape.	3. Eruption most abundant about the neck and shoulders, and where the body is tightly embraced by the clothing.
4. Skin more or less thickly studded with papules, which are of a pale colour.	4. Nettle-rash-like spots usually present here and there, the bite of the parasite being seen in the centre of each.
5. No parasite to be discovered.	5. Lice and their nits discovered in the folds of the clothing.

B. *Phtheiriasis capitis.*

Parasite—Pediculus capitis, which is met with exclusively upon the head.

Characters of the parasite.—The Pediculus capitis closely resembles the Pediculus corporis, but is considerably smaller; its legs are larger in proportion to the size of the body, and the abdomen is more distinctly divided into seven segments, which are separated from one another at the margins by deep notches. The ova (or nits) are attached to the hair; they have a pyriform shape, the end nearest the root being pointed, while the opposite extremity is truncated, and furnished "with a flat round operculum." They are attached to the hair by means of a glutinous material, which, according to Dr. Maddox, is secreted by the base of the claw of the Pediculus.

The Pediculi crawl upon the scalp and amongst the hairs, and this, combined with their attacks upon the skin, produces irritation and itching, to relieve which the head is scratched. The scalp is thus apt to be torn and excoriated, and the serum which exudes may be sufficient to glue the hairs together, and to form crusts. The disease is frequently complicated with Eczema, especially in those who are predisposed thereto, so that the head often has a very loathsome appearance, and may emit an offensive odour. This eczematous eruption does not always remain limited to the head, being very apt to spread to the back of the neck, to the ears, or even to the face, and to be accompanied by enlargement of the neighbouring glands. In such cases we should always satisfy ourselves as to the presence or absence of Pediculi, else we may mistake a case of Phtheiriasis capitis for one of Eczema. But while Pediculi often lead to Eczema, the reverse may be the sequence of events, the Eczema being followed by the presence of Pediculi, which are attracted by the morbid secretions, such a soil being specially suited to them. In the milder cases there is little or no eruption, and the most typical illustrations are met with in females whose growth of hair is luxuriant, and amongst the ill-fed, ill-cared-for children of the poor, although adults are not exempt.

Diagnosis.—The only disease likely to be mistaken for Phtheiriasis capitis is Eczema impetiginodes capitis, the distinctive features of which are supplied in the accompanying table:—

Eczema impetiginodes capitis.	*Phtheiriasis capitis.*
1. Not contagious.	1. Contagious.
2. Though oftenest in children, occurs at all ages and amongst all classes.	2. Generally met with in the children of the poor, or in females with luxuriant hair.
3. No Pediculi or nits detected, or only as a complication, and subsequent to the development of the eruption.	3. Pediculi and their nits adherent to the hair discovered, the latter more readily than the former.
4. Eczematous eruptions often found on other parts of the body, as at the flexures of the elbows and knees.	4. If complicated with Eczema the eruption does not involve distant parts, though it may spread to the neck, ears, etc.
5. Aggravated by the use of parasiticides, which irritate the scalp.	5. Readily cured by the removal of the nits and the use of a parasiticide, such as staphisagria ointment.

CHLORATE OF POTASH.—In a paper read at the American Medical Association, Dr. Shoemaker, after describing the physiological properties of this substance, detailed his experience regarding its therapeutical properties. In its *external* employment, its utility in mercurial salivation and ulcers of the mouth is universally admitted. A drachm to a wineglassful of water as a gargle often relieves the dry, red, and follicular congestion of the mouth and throat; and in ulceration of the tongue, either alone or in combination with astringents, it does more good than any other remedy. It is highly useful in simple catarrh of the nares and in simple or chronic catarrh of the larynx. A solution of one or two drachms to half a pint of water is useful as a gargle in diphtheria and phthisis; and in the subacute and chronic stages of otorrhœa an injection of five to ten grains to an ounce of water is often effective. In ozæna a douche of one drachm to a pint cleanses and thoroughly disinfects the parts. In leucorrhœa a lotion of one or two drachms to a quart lessens the discharge and relieves congestion. In gonorrhœa an injection of five to ten grains to the ounce very often completely arrests the discharge. In chancroid it acts beneficially either in solution or dusted over the parts, as also in obstinate and chronic ulcers, gangrenous sores, and discharging fœtid secretions. In pustular eczema one or two drachms to a pint, applied on old muslin, will often lessen the discharge, and heal the surface. In its *internal* use, when given in croup or diphtheria, it should be in decided doses of from five to thirty grains three or four times a day. Marked benefit from its use has ensued in phthisis; and in the marasmus of children, one to three grains three or four times a day are very useful, the infants, when it is given in conjunction with good foods, fattening on its use. In the eruptive fevers, full and frequent doses will often bring out an abundant crop of the eruption; and in various diseases of the skin it is very efficacious, especially in ecthyma, and in boils, carbuncles, styes, pustular acne, pustular eczema, and sycosis. It lessens the tendency to suppuration, and when this is already established it overcomes the abnormal state of the system. Dr. Shoemaker speaks from considerable experience as to its efficacy in carbuncular disease. He begins with very small doses, gradually increasing these until an effect is produced, using ample dilution. "Those who are large, flabby, and apparently vigorous, will improve under small doses, as larger ones sometimes still more increase the fat of the body; on the other hand, the pale, weak, and enfeebled will bear much larger doses, and will often increase very rapidly in weight."—*Louisville Medical News*, July 8.

ORIGINAL COMMUNICATIONS.

INDICATIONS OF THE NUTRITION OF THE BRAIN.

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We do not know exactly how the cells and parts of the brain are nourished, how the blood-supply leads to the nutrition of the nerve-cells, how the cells grow from the pabulum supplied to them. We do know that if the blood-supply to a portion of the brain is cut off by blocking of the vessels of the part, the portion of brain thus deprived of blood cannot continue to live.

The only method, with a few exceptions, by which we can know how the brain nutrition is going on is by observing the effects of that nutrition; the most easily observed effect of brain nutrition is movement or nerve-muscular action.

It will probably be at once granted that nutrition follows the law of the correlation of forces: for example, that in the movements resulting from brain action no force is created, none lost, but that every movement is due to force generated as the result of nutrition; so also every other function or outcome of brain action is the result of a definite amount of local brain nutrition. A definite amount of nutrition produces only a definite amount of function; if, therefore, a portion of that function be increased, a corresponding amount of the normal, or usual, function must be lost if the amount of nutrition remains constant. Therefore, when some portion of the brain displays a new function, there must be a corresponding decrease of the usual function, or else atrophy, that is, wasting, of the part of the brain will occur if the amount of nutrition does not increase. For example, when there is a great increase in movement, as in chorea, we should expect lessening of some other function, and we often find the general muscular power and the mental force lessened. Frequent headaches and night terrors in children are often accompanied by slight muscular twitches with over-movement, and also there is often a mental change with impaired muscular strength.

All the functions discharged by the brain and its parts are the outcome or result of the nutrition of the brain, or at least they could not occur without such nutrition. The functions discharged by the brain are the signs of the conditions of its nutrition. This is probably particularly true of those signs which are the spontaneous outcome of the brain action as contrasted with volitional acts. The exact process of the nutrition of the brain cannot be directly observed; but we may gain much information as to this process by observing its outcome.

It seems to be commonly assumed that as long as the central circulation is natural, all parts of the brain grow and are nourished alike. The uniform nutrition of the various parts of the brain may conveniently be called the syntrophic (*συν τροφη*) condition, and when there is evidence that the parts are not all in the same condition of nutrition, its condition may be said to be asyntrophic. To know whether all areas of the brain are alike supplied with blood, is a mechanical problem; to ascertain whether the various parts of the brain are alike nourished is a different matter. As we cannot see them during life,(a) we can only judge of their states of nutrition by their actions at a distance.

The effect of brain nutrition most convenient for observation is the motor action. Thus we may judge of the condition of the nutrition of the nerve-centres by the conditions of muscular movement resulting, or as is it more convenient to say, the condition of the nerve-centres is indicated by "nerve-muscular signs." Conversely, when we see spontaneous nerve-muscular action we must conclude that the force producing the movement results from the nutrition of the nerve-mechanism corresponding. It follows that isolated definite nerve-muscular movements or actions are signs of the condition of activity or nutrition of the nerve-mechanism corresponding.

A sudden nerve-muscular movement is produced by a sudden discharge or manifestation of force in the corresponding nerve-mechanism; if a tracing be taken of that movement it will indicate in some particulars the discharge of the nerve-centres corresponding.

Now, the brain nutrition may lead to various results.

1. Increase in the bulk of its tissue; hypertrophy, or wasting and diminution of its tissue; atrophy.

2. Nutrition may led to the production of motor force; nerve-muscular movement—kinesis (*κινησις*).

3. Mental action, whatever that may be.

4. Nutrition may lead to the usual or normal function of the parts of the brain being discharged—eucbresis;(b) or an abnormal function may result from the nutrition—dyschresis.

5. Nutrition may produce other than the usual resulting function—metachresis, *e.g.*, motion in place of mental power, etc.

6. The various portions of the brain-mechanism may exercise their function together: *e.g.*, the various mental centres may work well together; various nerve-muscular movements may be performed well together—synchresis; the various centres may not act well together—asynchresis.

If it can be shown that asyntrophy is common in the growth of parts and tissues, we may expect to find that asynchresis is also common under similar circumstances; that is to say, altered conditions of nutrition produce sometimes alterations of growth, sometimes altered function.

The three principles or methods of nutrition indicated by the terms asyntrophy, asynchresis, metachresis, are the special points to which I desire now to direct attention.

As to asyntrophy, there appears to be a general law or principle in organised life that nutrition is followed by a period of repose. The supply of nutriment remaining constant and identical in kind, the different portions of the body or organ may apparently be unequally nourished, owing to the inherent qualities of the cells of the part.

The following are examples of asyntrophy:—

1. In the development of the body, the rates of growth of the different parts vary much at different times.

2. Hair may grow freely upon the female chin in old age from hair-bulbs existing at birth, although at the same time the hair on the scalp is falling.

3. In plants we constantly see asyntrophy of vegetable cells. In the leaf-bud the supply of sap to the different cells is probably the same, but the rate of growth of the various parts is very different. As the leaf developes, it first grows quickest on the lower or outer surface; then, when the bud expands, the upper surface grows quicker than the lower. Here, then, is asyntrophy, or unequal growth due to the inherent vital character of the cells of the structure. Other examples are seen in the unequal growth of the stamens and style, the former being usually longer in the young flower, the latter being the longest when the flower is older.

Among nerve-centres asyntrophy is indicated, mainly, not by unequal growth, but by non-coincidence (asynchresis) in the discharge of the function of the different centres. In chorea we see one finger or part jerked at one time, another part at another time—showing that the various pieces of nerve-mechanism do not discharge their motor function together. The same thing is seen in athetosis and subsultus tendinum.

We come now to consider examples of the unequal nutrition of parts as indicated by the non-coincident discharge of the functions of parts (asynchresis), although all the parts are equally supplied with the same pabulum. This unequal discharge of function is, then, apparently owing to the inherent or vital qualities of the cells of the tissue; thus—

1. In alopecia the hair-bulbs atrophy in the part affected, but not in other parts; it occurs locally, and the health of the part may be recovered.

2. In herpes zoster the local nutrition is altered in patches, probably as the result of nerve changes, other portions of skin remaining healthy.

3. The salivary glands may be excited to secrete as the result of mental anticipation of food, while other glands, as the kidneys, are not so excited by the same circumstances.

4. In the "joint" (pulvinus) of a plant with mobile leaves—*e.g.*, *Mimosa pudica*,—the movement is caused by the cells

(a) We can, however, see the optic disc with the ophthalmoscope.

(b) Mr. John Tweedy kindly pointed out to me that Galen, Book XVII., chapter 1, "Concerning the Use of Parts," uses the term *ευχρησις* (verb *χρασθαι*) to signify the normal proper function as usually performed by a part. Hence the proposed terms—*μεταχρησις*, change of function; *δυσχρησις*, perversion of function; *αχρησια*, loss of function; *συνχρησις*, applied to two parts exercising their function together at the same time.

of the "joint"; these become turgescent and swell up without any growth resulting; the cells swell up on alternate sides of the little stalk, of which they form a part, and the only result of this alternate turgescence is movement. Examples of change of function are not uncommon, and in an organism this change of function (metachresis) may be partial and local. If it be local and not general, there must, according to the terms used, be asynchresis, or unequal discharge of the function of different parts; hence metachresis is often accompanied by asynchresis.

The following are examples of change of function:—

1. The epithelium on the lip may change its function, take on rapid growth, and form epithelioma.

2. Secreting glands—*e.g.*, the mamma or stomach—may produce vitiated secretion as the result of a "mental shock."

3. Change in the function discharged by portions of the central nerve-mechanism appears to be common, indicated by conditions of spontaneous movements, mental changes, etc.; thus—

In chorea we see excess of spontaneous movement and diminution of mental power.

In infancy spontaneous mobility is excessive; in middle age there is less spontaneous movement and greater mental power. With megrim in young people there is often a diminution of intellectual power and an excess of mobility.

Many so-called "mental conditions" have accompanying nerve-muscular phenomena; the emotions may be expressed by the condition of the facial and other muscles. It would seem as if, in some such disordered conditions, motor force were produced as a sort of "by-product" in the nerve-mechanism.

The "typhoid state" may occur in a patient whose brain was previously healthy. A change in the cerebral functions is now seen: the motor centres are nearly paralysed; the patient is powerless to move; the intellectual faculties are all wrong; and a new nerve-muscular sign (the subsultus tendinum) appears—there is a metachresis or change of function. The body generally is ill-nourished in such cases, and therefore the brain is also probably ill-nourished.

The conditions of the movements of the eyes in weakly infants, and under other circumstances, afford examples of the temporary alteration of the functions of nerve-centres from slight causes.(c) Infants, when sucking at their bottles, may often lose the association of movements of the eyes, the globes moving independently of one another, and one may be at rest while the other is moving. The eyes regain their parallelism when the process of digestion is completed. A cause so slight as this may derange the function of some nerve-centres. Under chloroform and other causes of coma similar phenomena are seen in adults.

Sleep is a condition that has been much speculated about, but too little the subject of direct clinical observation. In complete sleep there is general paralysis of motion and abeyance of mental action. It appears probable that the force of nutrition is expended in hypertrophy or recreation of exhausted cells. This is a marked example of physiological metachresis.

Among cases that may be termed examples of disease we see liability to sudden discharges of motor force usually followed by loss of mental strength; the same is seen in a less degree in hysterical cases.

Imbeciles may improve under treatment in their mental power; at the same time they usually gain in motor power. This change would seem to indicate metachresis or change of function, and hypertrophy or general increase of strength. Loss of some function, as speech, may be the temporary result of an injury; the same thing may result from fever.

To those who accept the foregoing remarks as truisms, it will probably be obvious that by the close and accurate study of all nerve-muscular signs we are likely to gain much increase of our knowledge, and more accurate and definite methods of recording the conditions of nutrition of the brain and its parts. Hence the necessity for the study of all kinds of movement, and the resulting positions of the body; the kind, duration, rate, and coincidence or succession, under various circumstances of health and disease, whenever such movements and positions are the outcome of the action of parts of the brain, or, as they may be called, "nerve-muscular actions." It seems to me common in conditions of ill-nutrition to have some change of function occurring in parts of the brain. The same thing is seen in plants; a starved *Mimosa pudica*(d) is exceedingly irritable, while the mobility of the vegetable cells is lessened when the plant is well fed.

(c) See paper, *British Medical Journal*, March 19, 1877

SOME OBSERVATIONS ON CONSUMPTION.

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In the history of scientific and philosophical method during this century, one of the greatest general tendencies or truths which has become manifested is that of the disappearance or subsidence of the doctrine of the "specific." On whatever field of human thought, in the domain of inorganic or organic nature, we direct our view, the old definitions are found to embrace far too narrow circles of generality. Philosophers and writers, in all the directions to which the human intellect can apply itself, are developing a unity of method, whose chief characteristics are the enlargement of the boundaries of ancient definitions, and the development of the alliances and affinities of phenomena, which, at first sight and to early knowledge, seemed remote and separate. Bacon, in the "Novum Organum," says, "He who does not blend together, and bring into the mass, all the vulgar distinctions of things and their names, cannot perceive the unity of nature, and the true lines of things."

When viewed from, or in comparison with, such durations of time as are contained in the periods of individual life, or even in historic periods, such phenomena as the animal kingdom presents in the more prevailing resemblances, rather than in the slighter differences, of successive animal and vegetable forms to their immediate ancestors, naturally gave rise to the doctrine of the specific. Many generations of minds struggling for light were needed before this doctrine of the specific could be seen as but forming a minor part of a greater generalisation or form(a) of development or evolution. Nor is it likely that we should even yet have opened our mental vision to the greater alliances and greater periods of nature in the domain of the natural history of plants and animals, had not parallel methods of study and enlarging generalisation been opened to us in the domains of comparative philology, geology, physics, etc.

It is to be expected, therefore, that our view of the natural deviations or diseases of organic beings or existences—be they plants or animals,—once held to be specific, would be modified and enlarged by the influence of the method of the wider circles of generalisation which have opened to us in other sides of knowledge.

If we view the history of the great expansion of our ideas during the past thirty years, in all the fields of nature, we shall see abundant truth of the proof of Bacon's instruction on the value of "deviating instances";(b) in other words, by allowing our minds to abandon arbitrary definitions, and to welcome those less prominent or obvious "instances" or phenomena, which are in truth the first views of wider circles of generality.

In this spirit, I venture to record some very simple facts which have been presented by the stream of phthisical cases which has passed before me during the past few years.

As no one can predicate in any side of nature, which facts shall be most pregnant in their future enlightenment of our method in the knowledge of the form of any disease or

(d) See *British Medical Journal*, February 25, 1882: "Analogy between the Movements of Plants and the Muscular Movements of Children called Chorea."

(a) Bacon uses the word *Form* somewhat in the sense of the *Idea* of Plato, "that forms were the true object of knowledge . . . . but *forms* are not absolutely abstracted from matter . . . . but confined and determined by matter" ("Advancement of Learning"). Bowen ("Modern Philosophy from Descartes to Hartmann," page 132) says—Forms "are real, and the proper business of science is to discern and compare them, thus arriving at general truths—a mere acquaintance with particular objects not meriting the name of science."

(b) Bacon says, in the "Novum Organum"—"The inquiry is not to cease till the cause of the deviation be discovered, though this cause does not properly rise to any form (general law), but only to the latent process that leads towards it; for as he who knows the ways of Nature will the easier observe her deviations, so he who knows her deviations will more easily describe her ways . . . . For if Nature shall once be discovered in her variation, and the reason of it become manifest, it will be easy to lead her thither again by Art . . . . and that not only in one case, but in others; for errors on one side show and open the way to errors and deviations on all sides."

phenomena,(c) so I must make this my excuse for the simple character of this paper, and which is but an approximative classification of some of the more marked symptoms and anatomical peculiarities which the patients presented; but the most simple facts are often those, not only of great importance practically, but of great place in the form of phenomena.

Of Functional Phenomena.—A large proportion of the patients complained of suffering much from a feeling of cold, both during the day and night; cold feet at night being the most frequent form. Years prior to the commencement of cough, emaciation, or other localised symptom, many patients suffered from sensation of cold. "I am always cold, even all the summer;" "For years I have been cold all over, especially after any exertion;" "Dreadfully cold, day and night;" "Always cold, summer and winter; I have not been able to get warm at all for the last few years." Such are some of the expressions of patients on this important and early symptom. A very large proportion said that they suffered much from cold feet during their growing up. Of those asked in reference to cold feet, eighty-one had this symptom, against eleven who had not so suffered.

It is surprising how few had taken any precaution against this latter symptom, though suffering much from it for years. An opinion prevails that artificial warmth during the night tends to increase the susceptibility of the sufferer to "take cold" during the necessary exposure of the succeeding day. This, I think, is a great error. As far as my experience has gone in those countries, such as North America, where, during the winters, the rooms are highly heated, there is not only no danger in going from them into the excessively low temperature outside, but rather one's feeling is that the body has a sensation of pleasure and power of resistance to the cold; but my experience in those countries was not large or long-continued. In England, however, I believe it is the greatest error and danger to the future health, that young people should be allowed to suffer cold in bed during the years of their growing; it is one of those depressing influences which very commonly precedes phthisis. It need hardly be said that artificial warmth at night does not render the sufferer more prone to "take cold" from the after day-exposure. It would be unnecessary to refer to this, but that widespread error exists on the subject, and that the results of the error are dangers to the future health. Localisations of sensations of cold are found; thus thirty-five had habitually cold hands. As to the form of this varying symptom of "cold sensations," we can only, in the present state of our knowledge, call it deficient nerve or vital energy. No doubt that it is akin to other neuroses, *e.g.*, sinking at epigastrium, feeling of general weakness, etc., which the same class of patients show. Whilst it is important to supply external warmth, and internal by food, not the less does the mind seek to perceive and give some more exact and powerful supplies to the composition of the system which shall correlate(d) the vital energy, to that state which stronger individuals enjoy. As illustrating the deep and wide relations which the after development of phthisis has to or in the system, one may remark on the significance of the long-continued—even from childhood—existence of these cold-sensation neuroses, and which are true parts in "continuity" with the after-developed phthisis of the lungs.

In a strictly scientific or philosophical view it appears to be a "necessary truth"(e) that no line separates the vital from the inorganic, but rather that a continuous gradation of series exists; yet in practice the words vital and chemical are used in a more restricted sense, and nothing can be more important than to see this distinction. In giving oils, etc., to these cold-feeling patients, we imply a deep vito-chemical theory; it is constantly seen here, how this sensation of cold and other neuroses disappear from the patients when, having sent them to the moors, they show a rapid improvement in general health. What exact physical existences or correlations the change to the moors supplies we do not know; they are seemingly transformed to vital energy: the appetite and strength increase, and the cold sensations disappear.

Thus this long-continued cold-feeling neurosis, which precedes often for many years actual structural disease of the lungs, points not only to giving heat-producing food, but to vital laws and forms far deeper than can be met by any chemical food-heat-producing theory.

In the series of phenomena which precedes phthisis of the lungs, other very prominent neuroses show in the region of the epigastrium. Over a hundred cases complained of pain at the epigastrium after taking food; many had so suffered, at intervals, over periods of several years. "Sinking" at the epigastrium is frequent. The loss of appetite in many is remarkable; it is obvious that in such cases the normal waste of tissue and loss by the varied excretions must be going on, yet they remain with "no appetite." A more subtle and profound cause or form for this phenomena must be found than any we yet know, probably deep in nerve-centres, or in the correlations of the vital plasma and energy themselves.

Deviations from the prevailing type of indigestion neuroses show, such as sense of fulness at the epigastrium, flatulence; three had pain over the upper half of the sternum after food. One young woman of eighteen was six months under treatment for extreme pain at the epigastrium after food, followed by vomiting, and simulating ulcer of the stomach; these symptoms entirely disappeared with the development of moist rales in one lung, and strumous disease of one sterno-clavicular articulation. In some other cases the old epigastric pain somewhat suddenly got well; improvement was quite the rule on taking a mixture of dilute muriatic acid, quinine, and arsenic, or after a change of air to Dartmoor. One man of forty, who since died extremely emaciated, and with anasarca for two months, both of whose lungs were much diseased, had a "ravenous appetite" on awakening in the morning. Out of several hundred cases of the "delicate" and actually phthisical, only about twelve said that they had not suffered from indigestion.

In the present state of science we are wholly unable to state the exact forms of the varied phenomena. We know that the disturbed state of function involves not only nerve-distribution at the seat of the sensation, but also changes through the cerebro-spinal centres; we also know, *à priori*, that the disturbed sensations must be phenomena in continuity and correlation with molecular changes of structure and composition within the body. But, however small and empirical may be our knowledge of the organic processes, not the less, it is an entrance into the knowledge of the true molecular changes involved in phthisis, when we recognise that such neuroses are true parts of the disease; and when we have found that change of air and the varied "tonics" are so capable of modifying the molecular combinations and correlations of the body, that the normal rates and states of health, as far as symptoms are a measure, can be restored.

Long before any change can be detected in the lungs, other disturbances in the correlations of the system occur. Such statements as follow were made by young people:—"I am tired always;" "I don't know what I want, I am so weak;" "I have no strength;" "Sheer weakness." Many who made such-like statements were plump and well-nourished young women. Many of these cases will get well under treatment; others are seen to slowly pass into disease of the lungs. A phenomena apparently more general and complex than the preceding neuroses, is that of the slow wasting. Inexplicable as yet as this phenomenon is, both to the physiologist and pathologist, yet is it part of the great and involved series of phthisis. This wasting shows varied types in different cases —*e.g.*, there is the long-continued slow wasting which precedes the lung-disease; there is the more rapid wasting and prostration of strength, lasting variously one, two, three, or more months, and which is more terrible to the case than is the affection of the lung itself. Perhaps allied to these phenomena, was a case of a girl who lately died at fourteen: for three years she had had extensive phthisis of both lungs;

(c) Herschel "Preliminary Discourse," paragraph 390) says—". . . . by far the greater part of natural phenomena remain yet unexplained: every new discovery in science brings into view whole classes which would never otherwise have fallen under our notice at all, and establishes relations which afford to the philosophic mind a constantly extending field of speculation, in ranging over which it is next to impossible that he should not encounter new and unexpected principles."

(d) I use the word *correlate* in the sense of Grove, and the word *corelate* in the sense of Darwin.

(e) Whewell ("Philosophy of Discovery," pages 347, 378; London, 1860) says—"The doctrine that necessary truth is progressive is a doctrine very important in its bearing upon the nature of the human mind; . . . . necessary truths require for their apprehension a certain growth and development of the human mind. . . . To see the truth and necessity of geometrical axioms, we need geometrical culture." At page 357 he further says—"It being established, then, that in the progress of science facts are idealised; that *à posteriori* truths become *à priori* truths; that the world of things is identified with the world of thoughts to a certain extent—to an extent which grows larger as we see into the world of things more clearly. . . ."

she had hardly grown in height from eleven to fourteen years of age; it was remarkable how long she lived, having such extensive destructive disease within the thorax; but the correlated evolutionary or developmental energy of the growth of the nerve, osseous, and general system, was non-existent. How was this child's evolution of growth suspended? This question is more likely to be answered by the future student of vito-physical correlations than by the pure physiologist or pathologist. May we not fairly expect that pathologists would find changed structure in the spinal centres of such cases?

We all know that the menstrual function is liable to disturbances in the phthisical. Such disturbances are very varied, so much so as to preclude their being viewed either as a cause or result of the lung-disease. We are compelled to look for a deeper and wider general series of causes, from which both the menstrual disturbance and lung-disease result. Some cases of phthisis had had the menses natural in all respects both before and after marriage. A very considerable number had had very scant flow throughout the whole period since the function had existed. In some, amenorrhœa was the condition through many years; in a good many, amenorrhœa existed, but with an occasional but scant return of the period. These cases of total and partial amenorrhœa demand great moral courage on the part of the physician, for the patient and patient's mother generally view it as the cause of all the mischief, and expect special remedies, such as iron. It is not always easy to convince them that the right course is to seek by slowly-acting modes of life, in relation to food, warmth, exercise, and clothing, to restore the general vigour and nutrition of the body. Four cases complained of menorrhagia, and four of leucorrhœa.

Some of the deeper vital involvements, in the corelation of phthisis with the menstrual function, are seen in that, whilst a good many phthisical women with scant menses are barren, on the other hand, phthisical women are often very prolific.

The deficient nerve-power or vital energy, as seen in the amenorrhœa and indigestion, shows itself also in the prevailing costiveness.

These varied aspects or disturbances of nerve-power, in functions so deeply concerned in vital being itself, cannot be overlooked in studying the form of phthisis. Very few presented the aspect known as anæmic. I think that there exists a characteristic, but not offensive, smell of the breath of those who tend to phthisis. Very few spoke of febrile access as having occurred in the course of their illness. Several showed a development of dark pigmentation of the skin, somewhat similar to that of pregnant women.

I have noted these varied phenomena, which precede or are at times associated with the final fatal phthisis of the lungs, because it is as true in the study of the complex organic kingdom as Herschel(f) says it is of the sciences. "It can hardly be pressed forcibly enough on the attention of the student of nature that there is scarcely any natural phenomenon which can be fully and completely explained in all its circumstances without a union of several, perhaps of all, the sciences." "Hence it is hardly possible to arrive at the knowledge of a law of any degree of generality in any branch of science, but it immediately furnishes us with a means of extending our knowledge of innumerable others, the most remote from the point we set out from; so that when once embarked in any physical research it is impossible for anyone to predict where it may ultimately lead him."

Food.—It is well known that a large proportion of those who eventually pass into phthisis show, from childhood even, a weakness of appetite and a dislike to most forms of fat. These cases often show fancies for special foods, such as salt fish, salt meat, pork fat, onions, eschalots, etc. In this part of England, according to my experience, it is a very general practice that delicate children, young people, and young adults, are prohibited from indulging their fancies and desires for many such special foods as they greatly long for, and which agree with them. It is a constantly recurring thing in my practice for delicate and phthisical patients to tell me that they have strong desire for special articles of food, such as onions, pickled onions, roast pork, salt fish, corned beef, suet-pudding, vinegar, etc., and that such food agrees with them, but that they have been strictly prohibited from taking them. Not only on theoretical grounds, but as the result of practical observation, I believe that such prohibitions are a grave error. The "indigestion," from which these cases have so long suffered, and for which they have been so carefully but injuriously dieted, is not an affair of the stomach, nor are their fancies for special foods mere voluntary caprices of the will, but rather, these fancies are deep vital phenomena, based on certain wants in the composition of, and correlations within, the system; and are as purely natural, and based on vito-chemical necessities, as that certain plants, in which salt is found on analysis, are found to flourish and exist on the sea cliffs.

It has been stated on good authority that the larger carnivora confined in European zoological gardens, if fed on raw meat, are apt to give birth to their young affected with cleft palate; but that, if fed on live goats or sheep, their young are produced in full development. On such delicate differences in food do most grave deviations from healthy structure and growth depend! The difference between vigorous and imperfect health, in a group of plants and animals, is found often to be determined by very minute differences in physical conditions. So potential are small changes on the laws of health, and so exquisitely delicate and exact are the correlations of physical existences on which life and health depend!

It will therefore be easy to see that these fancies or longings of patients for special foods have a most profound significance in nature and in the form of phthisis; and though only one direction or part of phthisis, yet we might expect much good to accrue to patients from yielding to their desires. For we, in this age, view phthisis of the lungs, not as an entity, but as the final fatal stage of long series of antecedent vito-chemical and vital conditions, and of which impaired digestion is one symptom. Accordingly, and writing from my own experience and record of cases, I have found, with very rare exceptions, that much good has resulted from complying with the fancies of the patients; the indigestion lessens, and the patients express themselves as much better in strength, etc. A delicate-looking boy of thirteen was brought to me for hæmoptysis: his words were, "I have no appetite for meat (fresh), but I am very fond of the lean of salt meat. I like onions, raw and pickled too." A girl of seventeen said, "I am very fond of salt meat and salt fish." Another girl of fourteen, of highly phthisical family, said, "I am very fond of raw onions." A delicate woman of twenty-four said, "I am very fond of raw onions, and they agree with me; have had a great desire for them two years past." A delicate woman of twenty-two, of highly phthisical family, whose two sisters, mother's sister, mother's sister's son, and two great-aunts on the mother's side, died of phthisis, is "dearly fond of onions, and they agree." A delicate woman of twenty-four, whose father died of phthisis at thirty, said, "I can eat onions with anything; always could from a child; fond of them from a child; would give up any dinner for onions." A man of twenty-seven, with advanced phthisis of left lung, said, "I am very fond of onions; like also salt fish, pickles, and vinegar." A married lady of nineteen, who consulted me for hæmoptysis, told me that she had had a great liking for onions since a child. She was of a titled family, and had been debarred this vulgar food; she had, however, made friends with the cook, who supplied her with onions, which she ate and enjoyed raw. My case-book would yield scores of such-like statements, but those I have quoted will be enough to arrest attention. I find that of those questioned on the subject, who were "delicate" or in phthisis, 120 liked onions, and that onions agreed with them; whilst 23 had distaste for them. Of the same classes of patients, in relation to pickles and vinegar, 73 said that they liked these articles of diet, and that they agreed with them; whilst 13 were without desire for such food. Varied other eccentricities or desires for food among the "delicate" and phthisical have appeared: 3 patients liked *heavy* suet-pudding, and it agreed; a great number were very fond of salt fish, and it agreed; many liked salt or corned meat; a considerable number liked fish. To the very prevailing dislike for fats, there are rare but marked exceptions. Out of some hundreds questioned, 12 only liked fats generally; a much larger number liked bacon-fat; many also liked the fat of roast pork; butter was generally liked. What is the significance of these phenomena? How is it that young delicate people, who are "picking" and fitful in their appetites for ordinary good food, yet will eat with avidity and

(f) "Preliminary Discourse," paragraph 183.

benefit, and without the "indigestion" which ordinary diet gives them, a raw onion, or a large quantity of pickles, or quantities of hard salt beef or fish?

I am frequently told by patients, that these types of appetite have existed in their cases during many years. In some cases, the passion for certain foods appears suddenly, lasting only a limited time. In most cases, however, the marked "variety" in the appetite lasts over many years. The phenomenon carries to the mind the conviction of the deep relation health has to suitable and definite environment (for foods equally as external existences are true parts of animal environment); and further, the extreme delicacy of the physical and vito-physical correlations on which health depends. What "varieties" are to the naturalist, such are these neuroses to the physician: be they of sensation of cold, sinking at the epigastrium, cravings for special foods, or feelings of prostration of strength, they must be viewed as the first or nearest deviations from the prevailing or normal states; and, however complex may be the law or order involved, yet they are phenomena of an orderly and determinate series and law. Just as one sees in India, amongst the low-fed natives, and who have suffered long from the chronic diarrhœa and dysentery so prevalent there, a passion for acid fruits, such as tamarind, lime-juice, etc., and under the use of which their health will often be much or wholly restored,(g) so we must look upon the longings of the delicate and phthisical, as based on actual wants of the body's composition or correlations; and as phthisis in its varied and early stages of indigestion, want of appetite, etc., often lasts through a long series of years, so it appears to be a paramount duty to supply the body, during such periods, with those substances it gives indication of needing for its nutrition and growth. Though not to the full degree, yet such longings appear to be of the same kind as that certain genera and species of plants and animals can thrive only in certain habitats, viz., those habitats to which their bodies' composition and energy are most nearly correlated. Nor, as before remarked, must we forget on how exceedingly small an amount of the apt or right supply does the health of organic being often depend. Those longings of delicate patients for such an article as raw onions, and its easy and perfect digestion and assimilation by them, with its after effects, viz., the confessed improvement of the patient, seem to me to indicate, by analogy, a path of much future hope towards the sustenance of patients from passing into actual phthisis of lung structure. Until the resources of chemical, spectral, or other analysis can show what minute differences in composition and correlation exist, between those who do and those who do not pass into phthisis, we must work by analogy and observation. The habits of plants and animals are deep-laid in the composition, laws, and necessities of their being. We do not view these directions of appetite as caprices, but rather as natural phenomena, determined by some want or state of system; they direct us on a way towards discovering more exact prophylaxis against deviations from healthy rates and structure.

Anatomical.—But in seeking to compass or perceive the form of phthisis, we have not only to view the varied symptoms of deranged functional innervation, but also some marked and profound relationships in the anatomical structure and evolution of the body itself. The facts and phenomena of heredity teach us that the tendency to phthisis must be differentiated in the earliest periods of the ovum, and continued, in latent conditions, throughout the life of the animal. It is found that individuals with certain anatomical types of bone structure, in certain segments of the body, including the upper maxillary bones; and others, with certain types of the skin system, including the hair, teeth, nails, etc., have great proneness to pass into phthisis.

(g) That the instincts and slowly growing experience of mankind are grand guides in diet might be abundantly illustrated: one example we have not yet fully appreciated. It is only of late years that the full value of lime-juice, tamarind, etc., has been recognised as all-essential to the diet of the natives of India and as one main preventive against their semi-scorbutic diarrhœa. "I have had the poor women clinging around my legs and arms, beseeching that they may get lime-juice and tamarind fruit. The value of these fruits to health has been known to the natives from the earliest times; whilst I have known their use strongly opposed by old and experienced Europeans, and even medical officers. In the celebrated Hindu play *The Toy Cart*, written, according to Horace H. Wilson, about the commencement of our era, in act 1st, scene iii., the Rájá's brother-in-law Samst'hánaka says—"I have had a most sumptuous regale in the palace here; rice with *acid sauce*, and meat, and fish, and vegetables, and sweetmeats." This acid sauce, still so valued by the natives, is lime-juice or tamarind.

The intimate and necessary correlation of nerve-distribution and segments, with the osseous and skin systems, in the evolution of the animal, directs us, therefore, to look deeper in the direction towards deficient nerve-structure as determining the marked anatomical peculiarities which are associated with phthisis. So wide are the circles of generalisation, and so infinitely varied the physical existences involved in vital evolution, and so vast the periods, that even when we have got safely, in true method, on any path, new difficulties and other circles of generality are reached. Thus, *e.g.*, after noting in many hundreds of cases a correlation between phthisis and decay of the upper incisors, a beautiful woman lately presented herself, with advanced phthisis of the left lung, whose upper incisors were of beautiful regularity and soundness, and her upper lateral incisors, so far from being relatively small, were relatively large; the enamel of her teeth was not translucent, but of the milky-white type. Thus the profound correlation of the anatomical evolution of the teeth and phthisis meets, in the actual field of nature, with apparent exceptions—disturbing perturbations,—which open up yet wider circles.

In my earlier notes on the teeth I did not separate those who were actually in phthisis, from those who were markedly "delicate," nor are my records of value statistically; not the less, my notes have been carefully and regularly made, and indicate laws or correlations between the nerve or osseous segments, skin system, and phthisis. My recorded cases of those delicate with some symptoms, and those with actual phthisis of the lungs, are about six hundred in number. The following is an abstract of the correlation of deficiency, in the sustained healthy normal nutrition and structure, between the teeth and lungs as shown in my cases: 194 had decay of the upper incisors; out of these, 57 had decay of both right and left upper incisors; 5 had exceptionally large middle incisors and phthisis. On the other hand, in 17 cases of advanced, and 12 cases of early phthisis the upper incisors were not gone. Five delicate persons of phthisical type had large regular upper incisors, and which were not decayed. In 23, noted as "delicate," but not yet showing any disease of the lungs, the upper incisors were not decayed. In 2 whose lungs were diseased, the translucent enamel of the upper incisors was not decayed; 1 had non-decayed, vertically furrowed upper incisors, with advanced phthisis; 7 had somewhat syphilitic-like non-decayed upper incisors, with the lungs sound; 2 had the enamel of the lower third of the upper incisors bevelled off, and the lungs sound; 1 had exquisitely shaped upper incisors, tending to almond or oval type, and the lungs sound.

The type of upper incisor which prevails in the phthisical is often that of beautiful teeth with translucent edges.

I have been struck with the existence of a correlation between the upper lateral incisors and phthisis, in the fact that these incisors are often abnormally small in the phthisical: 38 such cases presented. In 8 cases the upper lateral incisors were congenitally absent; in 1 case, one lateral incisor was congenitally absent, the other lateral incisor being very small; in 1 case of phthisis the left middle and left lateral upper incisors were transposed (the mother of this patient had abnormally small lateral incisors); in 4 cases only one lateral incisor was small. As "varieties" in the prevailing conditions, 2 cases of phthisis presented, having large upper lateral incisors. In cases classed as bronchial phthisis, the upper incisors were gone in 11.

The lower incisors, relatively to the upper, were rarely diseased in those delicate and phthisical. The upper canines were gone in 25 cases. One case had canine-shaped upper incisors. The lower canines were decayed in 4 cases.

Amongst the poorer classes, even in young adults, the gums at the base of the lower incisors are often found to recede—a state more related to general long-continued deficient diet than to phthisis.

Nails.—Apart from the well-known clubbed nails of chronic exhausting disease, especially of disease within the thorax, the nails of the phthisical present marked peculiarities: 38 had fine almond-shaped nails; many had very large nails; many had the nail of only the forefinger clubbed; 1 had the nails only of the middle fingers clubbed; many had nails unusually flat; some had sunken furrows across the nails; others had the substance of the nails extremely brittle. One most delicate woman of twenty-eight years had nails of exquisite fineness—beautiful in form and extremely thin; her right lateral incisor was abnormally small,

the left lateral incisor and left canine were decayed; her father and three brothers had died of phthisis. All this variety—and which might be extended—points to deficient or disturbed innervation, or, in other words, to deficient vital "energy" in the evolution of the individuals.

Hair.—Further well-marked correlations of the skin-system to phthisis are seen in the hair: 72 had heavy eyebrows, in many cases tending to meet in the mesial line; a much smaller proportion had fine pencilled eyebrows. Often the hair on the scalp is very great in amount: 1 case had an enormous amount of hair on the scalp, with extremely small lateral incisors. Varied other peculiarities of the mouth, lips, etc., may be observed in many phthisical cases, suggesting the thought, that in the series of forces and laws involved in the growth or evolution of the phthisical individual, irregularities or deviations from the most prevailing order or rate of nature occur; but these deviations, or perturbations, or residual phenomena, must, of necessity, have "efficient" or "secondary" causes in the states of relation of vito-physical conditions within the body, to those external (so-called) physical forces whose correlations are absolutely inseparable from life. In studying consumption, we do not look mainly to the lung, but to conditions of physical existences, in their correlation to vito-physical energy within the organic series or kingdom.

(*To be continued.*)

Dialysed Iron in Poisoning by Arsenical Fumes.—Dr. Bullard, attached to the Alta Montana Mining Company, writes to the *Philadelphia Med. Reporter* (July 1), in order to point out the immense utility of dialysed iron after the inhalation of arsenic fumes produced during the smelting of lead and silver ore. The poisonous effects are speedily dissipated by doses of half a fluid ounce taken three times a day, while no ill consequences are produced by the medicine. It has become a rule now at the mines for all workmen exposed to the fumes to take a dose once a day as a prophylactic, and this has acted most successfully in preventing the cases of poisoning, which were formerly so numerous. Dr. Bullard employs Wyeth's preparation.

Births and Deaths in Calcutta.—The death-rate of Calcutta in 1881 was 30 per 1000 against 28·7 the mean of the preceding decennium, this excess of mortality being chiefly due to a considerable increase of cholera deaths. Fevers and small-pox caused fewer deaths than for average years. The registered birth-rate was only 17·2 per 1000 against the still lower rate of 14·2 for the previous decennium. A low birth-rate is to be expected where there are 179 males to every 100 females, and where a considerable number of the latter are unmarried and unproductive. But the recent census returns have shown that this very low rate of births is wrong, and it is believed that 24 per 1000 would be somewhat nearer the truth. With a birth-rate of 17 and a death-rate of 30, Calcutta would soon be depopulated; but the numerical strength of the population is maintained by a constant immigration attracted by the industries and commerce of the town. No more than 29·7 per cent. of the inhabitants are born in Calcutta. The following table, from the census report of 1881, exhibits the disparity between London and Calcutta:—

	Under 1 year.	1-4 years.	5-10 years.	0-19 years.	20-39 years.	40-59 years.	60 and above.
London .	3·0	10·0	29·7	42·7	33·4	17·7	6·2
Calcutta .	1·4	5·0	20·4	26·8	48·3	20·2	4·7

The comparative paucity of infants, children, adolescents, and aged, and the excess of the middle-aged, are the most noticeable features. Among females, however, the disparity is less, the immigrants being chiefly males. The following table of deaths in Calcutta in 1881, according to age, compares instructively with the above figures:—

	Under 1 year.	1-4 years.	5-19 years.	20-39 years.	40-59 years.	60 and above.	All ages.
London. .	179	43	5·1	8·6	22·1	82·7	23·1
Calcutta .	423	62	17·5	18·5	22·6	59	30

It will be observed that the most striking differences are in the earlier periods, more especially as regards infants. The period 40-59 gives almost equal ratios, and the death-rate amongst the aged in Calcutta is actually more favourable than in London. The reason of this anomaly is probably the removal elsewhere of the dangerously ill before actual death.—*Indian Med. Gaz.*, June.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MANCHESTER ROYAL INFIRMARY.

CASE OF HEMIPLEGIA AND HEMIANÆSTHESIA.

(Under the care of Dr. ROSS.)

S. H., aged forty-seven years, has been an out-patient for some months. She enjoyed excellent health until four years ago, when she suddenly fell into a state of unconsciousness. She recovered her senses in a few minutes, but found she was unable to walk from paralysis of the right leg. The right arm, which felt numb, was not perceptibly affected. She recovered motor power in a few weeks, but her leg remained numb. About two years ago she had a second seizure; this time she remained in an unconscious condition for about a week, and both the right arm and leg were paralysed, although she thinks that the leg was more profoundly affected than the arm. She also lost the power of speech for a few weeks, but she completely recovered her speech in two months. The right arm and foot have continued to feel very numb ever since the last attack; the patient's sight has failed considerably.

Present Condition.—The patient is a stout, healthy-looking woman, and with the exception of a slight limp in walking she does not present any manifest signs of paralysis. The grasp of the right hand is now nearly as strong as that of the left. The muscles of the right lower extremity are somewhat tense, and the patellar tendon-reflex is slightly increased as compared with that of the left leg. The whole of the skin of the right half of the body, including the trunk, extremities, and face, is more tolerant of pinching and the pricking of a pin than the skin of the corresponding parts of the left half. Tactile sensibility is also impaired over the right half of the body. There is likewise diminution of the sensibility of the mucous membrane lining the left half of the cavity of the mouth. The patient with her eyes closed does not appreciate the weights of various bodies placed on the palm of her right hand as readily as when they are placed on the left hand. When any object, such as a book, is placed in her right hand, she can hold it quite well so long as her eyes are directed to the object, but when the patient's attention is attracted so that her eyes are directed away from the hand, the book immediately slips out of her fingers, and the patient remains quite unconscious that it has fallen. Taste is almost completely abolished over the right half of the tongue, and smell in the right nostril. She cannot hear the ticking of a watch on the right side until it is within one inch of the ear, while she hears it at twelve inches removed from the left ear. The patient does not think that she had any defect of hearing prior to her attack of unconsciousness two years ago. When the patient is asked to look at a bright red colour with the right eye, the left being closed, she says that it is "dirty red," but on looking at it with the left eye she immediately says that it is "bright red." The field of vision of the right eye for red colours is also very restricted. The impulse of the heart is forcible, but there is no evidence of valvular disease. The pulse is somewhat hard, but the urine does not contain any albumen.

Remarks.—Hughlings-Jackson pointed out long ago that the form of hemiplegia in which the leg is more paralysed than the arm is apt to be associated with hemianæsthesia. The reason of this appears to be that the fibres of the pyramidal tract, which regulate the movement of the lower extremity, lie posterior to the fibres regulating the movements of the arm, and consequently the former lie next to the sensory peduncular tract in its ascent through the internal capsule. The lenticulo-optic artery is situated in the posterior part of the lenticular nucleus, and hæmorrhage from this vessel is apt to impinge against the posterior part of the internal capsule, and consequently the fibres of the sensory peduncular tract, and those of the pyramidal tract which regulate the movements of the leg, are liable to be pressed upon or ruptured, while the motor fibres of the arm and face remain comparatively uninjured.

POST-HEMIPLEGIC CHOREA, HEMIANÆSTHESIA, AND HEMIANOPSIA.

(Under the care of Dr. ROSS.)

E. H., aged thirty-two years, was an inmate of the Crumpsall Workhouse, and was sent to Dr. Ross a few weeks ago by Mr. Hardie. The patient was one of the band of the 28th Regiment. He was in 1875 along with his regiment in India, and while playing he became suddenly unconscious and fell. He was in hospital in India for a week, and was then sent home. He states that he has no recollection of anything which occurred during the voyage, and remembers nothing until he found himself at Netley. On recovering consciousness he found that he was paralysed on the right half of the body. Three months previously to the date of the report he had a fright from a dog, and severe clonic spasms became suddenly developed in all the muscles of the right half of the body.

Present Condition.—The patient is a healthy-looking man, of medium stature and fair muscular development. The muscles of the right half of the body, including those of the trunk, extremities, and face, are subject to the most violent clonic spasms. The leg is alternately flexed and extended on the thigh, so that the foot is jerked upwards and downwards in rapid succession, and with the utmost violence; the foot is usually held in a position of extreme talipes equino-varus, and the various segments of the toes are strongly flexed upon one another. The forearm is held at right angles to the arm; the hand is flexed upon the forearm; and the different segments of the fingers are flexed upon one another, the thumb being flexed upon the palm and bent under the fingers. The clonic movements are more violent in the upper arm than in the other parts of the upper extremity. The arm is quickly abducted and adducted, and alternately drawn backwards and forwards, while at other times it appears to be violently rotated at the shoulder-joint, so that the arm is swung round like the free end of a flail. The right side of the face is contorted into every imaginable expression, while the patient is quite unable to protrude the tongue owing to the clonic spasms to which its muscles and the muscles of mastication are subject. The speech is broken and jerky, and the patient can only converse in disjointed words and syllables. The muscles of respiration are also in a state of constant clonic spasm, and thus the respiratory rhythm is irregular and interrupted, while the unequal contractions of the erector spinæ muscles produce various distortions of the body. There is a moderate degree of hemianæsthesia of the right half of the body, and a pin can be passed into the skin on that side without causing much pain. Taste, hearing, and smell do not appear to be affected. The field of vision, however, is very restricted, but owing to the inability of the patient to fix his eyes upon any object, from the violence of the clonic movements, it was found impossible, during a cursory examination, to determine accurately the nature of the limitation. So far as can be judged, the defect of vision consisted of a right-sided hemianopsia.

Remarks.—It was my intention to have examined this patient more carefully on a future occasion, but he suddenly left the workhouse, and became lost to observation. In cases of post-hemiplegic chorea the lesion has always been found in the area of distribution of the posterior external optic artery. A lesion in this position is liable to injure the posterior part of the internal capsules, and to this may be attributed the hemiplegia and the hemianæsthesia. But why should lesions in this position give rise to clonic spasms of the affected muscles? The reason which I gave some time ago for the existence of clonic spasms in such cases, was that the fibres which connect the cerebrum with the cerebellum pass through this locality. Injury of these fibres upsets the balance between the tonic or continuous contractions presided over by the cerebellum, and the clonic or alternate contractions presided over by the cerebrum. When I advanced this theory the existence of these fibres had not been accurately ascertained. In a case of hemiplegia, hemianæsthesia, and hemiopia recently reported by Mendel, a lesion was found in the posterior and external part of the left optic thalamus. A streak of secondary degeneration was discovered passing from the lesion in the thalamus downwards to the inner side of the red nucleus of the tegmentum, and passing over to the superior peduncle of the cerebellum of the opposite side. This streak of degeneration could be traced as far as the corpus dentatum of the cerebellum, in the hemisphere opposite to the lesion. The existence, therefore, in the posterior part of the optic thalamus of fibres which connect the cerebrum and cerebellum, can no longer be doubted; but how far injury of these fibres is the cause of the clonic spasms, is still open to question. Several cases are now recorded in which lesions of the posterior part of the optic thalamus has given rise to hemiopia. It would appear that the fibres of the optic tract, after passing through the external geniculate body, bend upwards and forwards, and pass through the optic thalamus of the same side to reach the convolutions of the occipital lobe.

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Medical Times and Gazette.

SATURDAY, JULY 29, 1882.

THE ENGLISH REGISTRAR-GENERAL'S ANNUAL REPORT, 1880.

THE forty-third annual Report of the Registrar-General for England and Wales, recently made public, brings under consideration the year 1880. During this year, it would appear from the returns made by the Board of Trade, an excessive amount of emigration has to be reported, the numbers gradually rising from 63,711 persons in 1877 to 111,845 in the year under notice. The total number of births registered in 1880 was 881,643, being at the rate of 34·2 to every thousand persons living. This was the lowest rate recorded since 1854, when the rate was 34·1; but as the registration of births at that period was very imperfect in comparison with the registration of the present time, it may be assumed, the Report thinks, as highly probable that the actual birth-rate in 1880 was the minimum as yet attained. The highest rate on record (36·3) occurred in 1876, from which date it has fallen continuously in each year. The proportion of male to female births was exactly the same as in the previous year, viz., 103·6 boys to 100 girls; there are two curious facts, the Report says, relating to this proportion of male and female births, neither of which has, as yet, received certain explanation. The first is, that the propor-

tion of boys to girls is smaller in England and Wales than in any other European country; and the second, that the proportion has been gradually but steadily diminishing for many years past. The deaths registered during 1880 numbered 528,624, being 2369 more than in the preceding year. The death-rate was 20·5 per thousand persons living, and was the lowest recorded since civil registration began, with one single exception, namely, in the year 1877, when the rate was only 20·3. The average rate for the ten years, 1870-79, was 21·6, and had the rate in 1880 been equal to this, nearly 27,000 who were alive at the close of the year would have died in the course of it. The death-rate in the urban population, consisting of some fifteen and a half millions of persons, was 21·9, whilst in the rural population, comprising some ten and a half millions, it was 18·5. As compared with the generality of years with low death-rates, 1880 presented this peculiarity, that the mortality of children was in excess, while that of persons above the age of childhood was below the average, and this to such an extent as largely to overbalance the increased mortality of children. No less than sixty-eight persons deceased in 1880 were stated to have reached their hundredth year of life; in the course of the ten years, 1871-80, the number of reputed centenarians was 767, but, the Report adds, it is worthy of note that the proportion of these reputed centenarians to the population was highest in those districts in which there is reason on other grounds to believe that registration is less accurate than elsewhere. The population of the eleventh division, which comprises Monmouthshire with North and South Wales, is but 6·1 per cent. of the total population of England and Wales; but no less than 17·6 per cent. of the reputed centenarians of the ten years were recorded in that division. The mortality in 1880 was, as usual, highest in the first quarter of the year. It was, however, not only in that quarter, but also in the second and fourth, considerably below the average of the ten years, 1870-79. In the third quarter alone the contrary occurred, and the rate was above the average of the preceding decennium. The cause of this, as of the increased mortality of children previously noticed, is to be found in the prevalence of summer diarrhœa, referable to the hot weather which prevailed throughout August and September. The deaths from zymotic diseases were 5·4 per cent. below the mean annual rate of the preceding decennium; the reduction was most marked in small-pox, scarlet fever, diphtheria, croup, and the several kinds of continued fever; while, on the other hand, the mortality from measles, and still more from diarrhœal affections, was considerably above the previous average. In dealing with the small-pox returns, the Registrar-General has appended some important facts which we shall endeavour to notice upon a subsequent occasion. On the subject of suicide, the Report points out that there are notable differences between the two sexes as to the methods they adopt in destroying themselves: women, as compared with men, avoiding weapons, with the use of which they are of course less familiar, and showing apparently a comparative repugnance to methods that suggest horrible disfiguration, while they adopt drowning or poisoning in greater proportion than the other sex. Again, males, speaking generally, have freer access to poisons than women, so that a wider choice is open to them; they are, moreover, better informed as to the action of such substances, and perhaps even in destroying themselves they proceed with more deliberation than women. The consequence is that they select those drugs which will rid them of life with the least amount of suffering, such as opiates, prussic acid, and the like. Thus, of 1000 males who poison themselves, 567 use one or other of the narcotic group of poisons, while of 1000 women only 246 have recourse to them. On the other hand, strychnia (or vermin-killer, which contains strychnia, and in a readily procurable form), arsenic, and phosphorus (which can also be obtained without much difficulty, on pretence of poisoning rats, etc.), as also carbolic acid and vitriol (both of which are fluids in domestic use), are, in spite of the amount of suffering they entail, used by women in 544 cases out of 1000, against 246 cases of their use by a similar number of self-poisoning men. The number of persons registered as having committed suicide in 1880 was 1979, and the figures for this and the preceding year give the two highest rates on record since civil registration began. It is satisfactory to find that there is a slight decline in the proportion of uncertified deaths in 1880, as compared with 1879. This decline was especially marked in those counties in which the proportion of uncertified deaths formerly showed the largest excess; it was still the highest in Cornwall, Hereford, Cumberland, Westmoreland, Monmouth, and Wales. Lastly, in comparison with other European states, the birth-rate of England and Wales was about half-way between the lowest and highest continental rates, which ranged from 29·6 in Switzerland to 37·7 in the German Empire. It may here be noted that in the nineteen years 1860-78 the birth-rate in France was so low as 26·0. The death-rates in the European states during the year under notice ranged from 18·1 and 20·4 in Sweden and Denmark, to 29·6 in Austria, 30·5 in Italy, and 38·6 in Hungary. The English rate, therefore (20·5), was considerably below the lowest rate in any of the Continental States except Sweden and Denmark.

PRIMARY CANCER OF THE BODY OF THE UTERUS.

Primary cancer of the body of the uterus is one of those forms of disease which occur so rarely in the practice of any individual, that their clinical history can only be traced by putting together cases recorded in literature. This has been done, as to the affection named, with more or less fulness and accuracy, by several writers. The latest, and, as it seems to us, the most critical, and therefore probably the most correct, has been published by Drs. C. Ruge and J. Veit, in a recent number of the *Zeitschrift für Geburtshülfe und Gynäkologie*, and it seems to us that their conclusions are worth notice.

Secondary cancer of the body of the uterus, either by direct extension of new growth from the cervix, or by isolated nodules of secondary growth, is much commoner than such disease as a primary occurrence. Thus Blau, out of 87 autopsies on patients dying with cancer of the neck of the womb made at the Berlin Charité, found that in 29 cases the growth had directly extended to the body of the organ, and that in 9 there were secondary growths in that part. All cases of this kind must of course be excluded before the history of *primary* cancer can be correctly written. The earlier writings on the subject fail to command the confidence of Drs. Ruge and Veit, partly because they are not careful enough to separate primary from secondary disease.

The estimates which have been formed of the frequency of cancer of the body as compared with that of the cervix vary from 1 to 16 to 1 in 420—a divergence the extent of which shows how untrustworthy some of the accounts must be. Ruge and Veit base their conclusions on forty-three critically examined indubitable cases, of which twenty-one have come under their own observation, and twenty-two have been collected from literature.

Cancer of the body of the uterus they regard as essentially a disease of the mucous membrane; it originates in the endometrium. Macroscopically they find that two forms

exist—the diffuse, and the circumscribed or polypoid. The former appears to be the more frequent. But whether the two forms are radically different from the beginning, or whether they are in early stages alike, but differ in their mode of growth, is very difficult to ascertain. The growth may extend over the whole inner surface of the uterus, the cervix only being unaffected. In other cases the greater part of the uterine wall may remain free, and the neoplasm form an isolated tumour at one spot, which may hollow out the opposite wall of the cavity where the growth comes in contact with it.

With the advance of the disease the uterus enlarges—an enlargement not altogether due to the bulk of the diseased tissue, but rather analogous to the enlargement due to pregnancy. Just as the uterine enlargement in the early months of pregnancy is out of proportion to the size of the contained ovum, so the enlargement of the uterus which accompanies cancer of its body is greater than the growth itself could cause. As the growth enlarges, and invades the uterine wall, its older parts degenerate and break down, and thus the uterine cavity may either become enlarged (the external dimensions of the uterus remaining the same), or the uterus may contract and the cavity remain small, and thus an apparent diminution in size may follow the enlargement of the uterus present at the beginning.

In the circumscribed or polypoid form, the growth projects into the uterine cavity, growing from a more or less broad base in the middle of healthy mucous membrane. In its growth it does not creep along the surface, but spreads centrifugally, radiating through the muscular tissue and towards the peritoneum. The polypoid growth may break down or slough off, and then the knots of growth in the muscular wall of the uterus be the only visible disease. In this variety the growth projecting into the cavity is smooth on the surface, while in the diffuse form it is villous or warty. The authors have never seen nodules in the muscular tissue of the uterus without finding reason to think that the disease had begun in the mucous membrane and progressed in the manner above described. They do not deny the existence of metastatic nodules, but they have never seen them. To put the same thing in other words, they have never seen a case of primary cancer of the body of the uterus in which the mucous membrane was not affected. They do not find any satisfactory evidence of myomatous growths undergoing cancerous transformation, although such tumours may lead to overgrowth of mucous membrane and gland tissue, and this hypertrophied mucous membrane may become the seat of malignant change, and from the mucous membrane the disease may spread into the tumour.

One important practical question is, whether chronic endometritis in any of its forms tends to lead to cancer. Drs. Ruge and Veit regard intractable or recurring endometritis as a process so much resembling malignant disease that there is good ground for suspecting that it may become genuine cancer; but they have never seen the transformation occur. The two diseases, although somewhat alike, are yet essentially different: the one is a hyperplasia; the other a heteroplasia, leading to destruction of the part affected, and infective lesions of other parts.

Cancer of the body of the uterus shows some differences from cancer of the cervix in its mode of progress. The lumbar glands become affected earlier; but the disease does not extend so soon into the parametric tissues. Death from uræmia is not so common as in cancer of the cervix.

With regard to its etiology, the figures of Ruge and Veit show, as have done those of former investigators, that cancer of the body of the uterus is apt to occur at a somewhat later period of life than cancer of the cervix; and that a larger proportion of the patients affected by the former kind of disease are virgins or nulliparæ, than is the case with the latter, the liability to which, as is known, increases in proportion to the number of children a woman has borne. Another etiological point which our authors bring out, is that in cases of cancer of the body of the uterus, menstruation often seems to have persisted to a later age than usual. This may, of course, have been due to the unsuspected commencement of the disease, or to some morbid change, such as endometritis, which laid the foundation for it. Their inductions upon each of these points are, however, based on but a small number of cases.

With regard to symptoms they have little new to say. Pain, hæmorrhage, watery and sometimes fœtid discharge, belong, as everyone knows, to cancer of the womb, whether cervix or body be affected. Sir James Simpson described a pain, often so severe as to make the patient cry out, recurring at a definite hour of the day, lasting a longer or shorter time, and then ceasing altogether until its next recurrence; and he believed that such pain indicated with some certainty the presence of cancer of the uterine body. Our authors have observed such pain in thirteen of their cases, but they did not find it recur quite as regularly and exactly as Simpson stated. They have noticed, moreover, that it occurs in cases in which, with extensive disease of the body of the uterus, the cervical canal is narrow; and they have found it relieved by thoroughly scraping out the uterine cavity. They believe it is due to uterine contraction, excited by the presence of bits of necrosed tissue unable to escape through the narrow cervical canal. They therefore do not attach to this symptom as much diagnostic importance as did Sir James Simpson. The other symptoms which arise as the disease extends—cachexia, bladder and bowel troubles, etc.—present nothing peculiar.

The diagnosis is to be made by bimanual examination and the microscope. By the former we find what feels like a tensely distended uterus, either smooth on the surface or presenting small nodules, and this, with hæmorrhage and a high degree of cachexia, should arouse a suspicion of cancerous disease. The diagnosis is made certain, in the authors' opinion, by scraping a bit of tissue from the interior of the womb, and examining it with the microscope. They admit, however, that considerable practice is necessary to distinguish with certainty cancerous tissue from that of mucous membrane altered by inflammatory changes, or from sarcoma. It appears to us that the amount of histological experience required to warrant a confident opinion is so great that it is likely to be long before this method of diagnosis can take its place among the ordinary resources of the practitioner.

The treatment is of two kinds: radical and palliative. The radical treatment is, of course, removal of the uterus; and as we have frequently put before our readers accounts of what has been done in this direction, we shall not further refer to it here. As a palliative measure the authors speak very strongly of the advantage of vigorously scraping out the uterus. They find improvement in all symptoms, especially in bleeding and pain, follow its practice; and they think that the only risk attending it is that of perforation of the uterus. The benefit is sometimes so striking, that it has been taken for cure. In one case the authors state that the patient remained free from every symptom for a year and a half. After scraping out the uterus, caustic may be applied, but they do not think that the relief is rendered more lasting by this means. From all other palliatives they find that little benefit is to be expected. Highly as they think of the effect of scraping out the uterus, yet they only recommend it when radical treatment is impossible, and bleeding and pain are severe.

THE WORKING OF THE ADULTERATION ACTS.

A REVIEW of the working of the Sale of Food and Drugs Act during the last three years does not suggest any very satisfactory reflections, whether we regard the extent to which the Act has been put in practice, or the prevalence of adulteration that it has revealed. Like too much of our sanitary legislation, it is optional; and in seven counties and forty-three towns nothing whatever was examined last year, while in four counties and twenty-six towns the amount of work done was ridiculously small. Even where a more systematic examination is carried out there is ample room for defrauding the public, for, on an average, not one sample in a million sold is subjected to analysis.

Nor can we cherish a belief that the uncertainty of incidence and the possibility of detection exert any deterrent influence on traders, for of the few samples actually tested, so large a percentage have been found to be adulterated, that, assuming the existence of a certain number of honourable dealers—men who, on principle, would abstain from such dishonest practices—the proportion could scarcely be greater were there no Acts prohibiting them, no courts to punish, and no analysts to expose them.

One table will show what we mean. Of the following articles the percentages of samples found to be adulterated to those examined were:—

	London.	Large towns.	Counties.	Whole country.
Milk	26·31	19·94	18·40	19·05
Butter	14·28	21·47	7·45	12·67
Groceries . . .	7·94	16·61	7·83	9·70
Drugs	7·84	14·10	28·34	19·09
Bread and flour .	1·30	3·60	5·24	4·23
Wine, spirits, and beer .	12·76	24·65	24·87	23·94

The small percentage of samples of bread and flour found to be adulterated in a legal sense is certainly satisfactory, but it must be borne in mind that the law does not take cognisance of the amount of water in bread, and it cannot be disputed that the addition of water, practised with a view to the increase of weight at the expense of nutritive value to an extent of 12, 18, or even 24 per cent. above the proportion contained in sound and properly made bread, is as much a fraudulent adulteration as the admixture of a like quantity of water to milk.

Alcoholic drinks figure high among adulterated articles, but the addition of water is the principal falsification, and, considering the intemperate habits of so many of the lower classes, we are not disposed to find much fault with a practice which tends to diminish the evils of drunkenness.

The adulteration of butter consists mainly or entirely in the addition of foreign fats, inferior in taste, but equal in nutritive value to the genuine article.

But the wide-spread adulteration of milk is one of the crying shames of the country. Mr. Wigner estimates that in the metropolitan district alone £100,000 is paid yearly, and that chiefly by the poor, for water sold at the price of milk. Little enough, at best, do their children get of what should be their staple food, and when this is so largely diluted the effects on infant life and health must be disastrous. Nay, more, these figures (over 26 per cent. in London) fail to represent the true extent of this falsification, for the "standard" fixed by analysts is so low as to be almost a premium on adulteration. Mr. Wigner states that several of the largest London dairymen now absolutely reject milk which falls within 5 per cent. of the standard, fining the farmer who supplies it, and cautioning him in no measured terms if it fall as low as within 8 per cent. of the so-called standard. These milks, therefore, condemned by the more honourable members of the trade, would be passed as pure, or at least as not coming within the terms of the Act, by analysts and magistrates.

With regard to groceries, two amendments are desirable in the application of the Act. While it is very properly illegal to adulterate arrowroot with potato- or rice-starch, or to sell a mixture of coffee and chicory without acknowledgment, there is at present no limit to the adulteration which may be practised on cocoa with impunity, the proportion of real cocoa in some of the preparations sold as such being as low as one-third, or even less. On the other hand, prosecutions for the addition of wheaten flour to mustard ought to be abandoned, and, indeed, a special exception in regard to this should be inserted in the Act, it being well known that such addition is absolutely necessary for the preservation of the mustard from fermentive changes, and for rendering it fit for table use. A reasonable limit might be fixed, but the mixture itself should be legalised.

The adulteration of drugs, too, is a serious matter, reflecting as it does on the character of a body of men who are presumed to hold a higher social position in virtue of their superior education than the petty tradesmen. It prevails in the rural districts to twice the extent that it does in towns, and in these again it is twice as general as in London. It does not appear whether the wholesale houses or the retailers are mostly to blame, but we greatly fear that if the truth were known it would be found that some of the former supply inferior articles to their country customers, presuming on the ignorance of the grocers and drapers, who in small places are at the same time retailers of drugs, and on their inability to test the quality of their wares by chemical or microscopical means. In London the vigilance of the medical profession, and the scientific knowledge of the better class of pharmaceutical chemists, provide a powerful check to such practices.

Adulteration being thus revealed to be so rife, it seems to be in the highest degree expedient that whenever the Legislature shall have leisure to turn its attention to social questions, some steps should be taken to insure a systematic examination of a far larger proportion of samples of every article of food and drugs within the scope of the Act, and that the penalties imposed should be such as to outweigh, and not to merely reduce by an insignificant discount, the profits derived from dishonest trading. The loophole for escape afforded by "reasonable diligence" must be narrowed, every facility afforded to carry the conviction from the retail to the wholesale dealer, and the neglect on the part of the former to obtain a warranty should, at any rate after the first conviction, be deemed an equivalent offence, as a presumption that he obtained the article at a price at which he might well know that it must be adulterated.

THE WEEK.

TOPICS OF THE DAY.

IN his capacity as President of the London Hospital, Whitechapel-road, the Duke of Cambridge recently presented the prizes to the successful students, the list of whose names we gave last week. The ceremony took place in a large marquee erected in the rear of the Hospital grounds, and was very numerously attended. The Duke was received at the principal entrance to the Hospital by its Vice-Presidents, Mr. J. H. Buxton, Chairman, and other members of the House-Committee, and the medical and surgical staff. In the marquee a considerable number of the governors and friends of the Hospital had assembled, the band of the Tower Hamlets Volunteers assisting to pass away the time until the proceedings commenced by Mr. Buxton explaining the objects of the meeting. The prizes were then duly distributed, and as this year the Committee

determined, for the first time, to give prizes for general efficiency amongst the probationer nurses, the Duke of Cambridge presented prizes of five, four, and three guineas respectively to the three nurses who had been selected for these awards. His Royal Highness then delivered a brief address to the meeting, in which he congratulated them on the success of the Hospital and its school. He expressed his pleasure at the fact that steps had been taken to secure the best possible nursing—that greatest of all adjuncts to the exercise of medical science—by the offering of fairly substantial prizes. Other short addresses followed, and thanks were awarded to the Chairman. The Duke of Cambridge acknowledged the vote, after which he proceeded to inspect the wards of the Hospital.

Among the evidence taken by the Select Committee of the House of Commons on Private Bills containing provisions for the prevention of the spread of infectious diseases, Mr. Armstrong, Medical Officer of Health for Newcastle-on-Tyne, stated that he found in a house, where he had gone to visit a patient, some ninety meat pies for sale, and a quantity of paste in course of preparation for other meat pies, and this in the same room with a child suffering from enteric fever! The witness saw the mother turn the child over in bed, her hands smeared with the paste she had just left, and to which she was about to return. This was about the fourteenth or fifteenth day of the fever. Mr. Armstrong quoted this case in support of the enactment of necessary provisions for the closing of shops where eatables are sold, and which are in connexion with rooms or dwelling-houses in which infectious disease has broken out. Before the same Committee, Dr. Patterson handed in a return showing that in forty-five towns 3441 persons had been attacked with typhoid fever traceable to milk-supply, 307 of the cases proving fatal.

The annual inspection of the Leavesden Asylum for that portion of the sick poor of the metropolis classed as "chronic imbeciles of the harmless kind," was recently made by the Managers of the Metropolitan Asylums Board. Mr. Bell Sedgwick, the Chairman of the Asylum Committee, received the visitors, and conducted them through the administrative offices of the building, including the stores, bakery, kitchens, workshop, engine- and boiler-houses, and laundry; concluding with the chapel, and the male and female wards. At the time of the visit the former ward contained 900 inmates, and the latter 1100. The infirmaries, day-rooms, dormitories, and bath-houses were also visited, and the opinion was unanimous that the arrangements made for the well-being and comfort of the inmates were of the most complete and satisfactory character. In the course of the luncheon which followed, Mr. Galsworthy, the Chairman of the Asylums Board, alluded to the Royal Commission appointed to inquire into the work of the Board, and said it was somewhat doubtful when their report would be issued. What the future of the Board would be was not certain; it might be abolished altogether, but this he did not think probable. In his opinion it was more likely that the Board would be increased very largely, and perhaps as many as sixty members would be added to it. The Managers would welcome any new members very warmly, because that would perhaps make the work a little lighter. At present it was most arduous, and had for some time past been carried on in the face of most overwhelming difficulties. One of the Managers' hospitals had been entirely closed, and another nearly so, by decisions in courts of law, and the only idea the public seemed to have of the Managers' work was, that when small-pox or fever occurred anywhere, it was the duty of the Board to look after the cases, to take charge of them, and to assume all the responsibility for them.

The *City Press* announces that the Royal Commission on Thames Pollution, having finished the preliminary inquiries, will next meet to take evidence. At the earnest request of the Metropolitan Board of Works, they have determined, contrary to the practice of all Royal Commissions, to hear counsel. Accordingly, Mr. Webster, Q.C., Mr. Lumley Smith, Q.C., and Mr. Balfour Brown will appear for the City; whilst Mr. Bidder, Q.C., Mr. Michael, Q.C., and Mr. Bazalgette will represent the Metropolitan Board. This concession of the Commissioners will, it is stated, be a costly matter for London, as it is calculated that counsel's fees will amount to something like £200 each day they appear. But the question of expense is not the only thing to be considered. It will be remembered that the subject at issue has already been fought out between the Thames Conservancy and the Metropolitan Board of Works, with able legal advice on either side, and it might have been hoped that the present Commission would proceed to consider this important question totally apart from the legal aspect of the case.

It is much to be desired that our mortuary regulations should be placed on a more satisfactory footing. Last week we mentioned some flagrant cases occurring in the Strand district; since then, at an inquest held by Mr. Payne, at the Coroner's Court, Borough, on the body of a boy aged eight, the following evidence was adduced. The deceased, who had just come out of school, jumped up behind a cab going down the Old Kent-road; he got off again, but in making for the pavement was knocked down by a tram-car, and killed. Mr. C. F. Harper, surgeon, of the Old Kent-road, having deposed to the cause of death, complained to the Coroner that the officers had caused the dead body to remain on his premises, until he was compelled to get an undertaker to remove it. The police told him that they could not remove the body of the deceased to the residence of his parents, as it was in an adjoining district; and they could not take it to the mortuary, as they could not find out who had the keys. The coroner's officer, it appears, was away from home. The Coroner said he regretted the inconvenience Mr. Harper had been put to, and hoped that better facilities would be given in the future for obtaining the mortuary keys. The jury returned a verdict of "Accidental death."

The British Home for Incurables in the Clapham-road celebrated its majority last week, and the occasion was made one for a garden-party in the grounds. Their Royal Highness the Prince and Princess of Wales attended the festival. This Home was established to provide a retreat for life, with good nursing and skilled medical attendance, for incurable patients, and to grant pensions for life to those who might have friends able in part to provide for them. Admission is limited to persons over twenty years of age, except patients of the insane, idiotic, or pauper classes. Already 149 in-patients and 384 out-patients with annuities of £20 have been elected to the benefits of the charity; 120 candidates are now seeking election, and the Board are continuing to receive applications from others. The income for the last three years has fallen far short of the expenditure, and the Board have had to trench largely on the capital. They now make an appeal for contributions in order to establish a "birthday fund" in celebration of the present Royal visit. Having carefully inspected the wards, the Princess, as patroness of the Home, received purses of £5 and upwards from contributors, and a sum of £350 was speedily realised. The Prince, in responding to a vote of thanks, said he did not know a more deserving charity.

A meeting of the delegates of the Hospital Saturday Fund was held on Saturday last at the offices in Fleet-street, Mr.

Hodgson Pratt, one of the Vice-Presidents, presiding. According to the report of the Council for the year 1881 (the eighth issued), an increase of about £1500 was realised last year in excess of 1880. The report of the Committee—recommending the providing of boxes, the necessary printing, and the desirability of the delegates using their influence to secure the services of ladies to preside at the collection-tables on Hospital Saturday, September 2 next—was discussed, and the Honorary Secretary, Mr. Frewer, stated that, in view of the forthcoming collection, the Council had issued about 35,000 collecting-sheets to workshops and other establishments. He also notified that most of the managers of the different railway companies had expressed their willingness to facilitate the Saturday collection in the metropolis this year. All the details for the next collection having been fully discussed and arranged, the meeting then terminated.

The Duchess of Teck recently opened two new wards which have been built to increase the accommodation of the Richmond Hospital. These new wards have been constructed from designs by Mr. F. J. Brewer, in accordance with the most modern improvements in hospital architecture. They will afford accommodation for thirty-four additional beds, with an admirable system of bath-rooms, lavatories, etc. Her Royal Highness, who was accompanied by the Duke of Teck, was received at the Hospital by the medical staff, and proceeded to inspect the wards. At the conclusion of the inspection the Duchess was presented with an address by the Committee, and at its solicitation she named the new wards the "Cambridge" and "Mary Adelaide" wards. A presentation of purses then took place in aid of the building fund of the Hospital.

THE MEDICAL STAFF FOR THE EXPEDITIONARY FORCE TO EGYPT.

THE Government appears at last to have made up its mind on the subject of starting an expeditionary force to Egypt. Amongst the principal appointments made it will be found that Deputy Surgeon-General Hanbury, C.B., now acting as Principal Medical Officer in the South-Eastern District, has been selected to fill the important post of Principal Medical Officer to the Army in Egypt, with the local rank of Surgeon-General. Brigade-Surgeon J. A. Marston, M.D., at present serving in India, has been nominated Sanitary Officer to the expedition, with the local rank of Deputy Surgeon-General. Dr. Marston, before proceeding to India, was for many years employed at the headquarters of the Army Medical Department as assistant to the head of the sanitary branch in that office. The force will be composed of two divisions, Deputy Surgeon-General Ekin acting as Principal Medical Officer to the first, and Brigade Surgeon Manley, V.C., to the second. At the special request of Her Majesty, Surgeon-Major F. B. Scott is to be attached to the personal staff of His Royal Highness the Duke of Connaught, who proceeds in charge of the 1st (or Guards) Brigade. It will be remembered that it was Surgeon-Major Scott who discovered the body of the late Prince Imperial after he had been killed by the Zulus on June 1, 1879, and he was also selected to accompany the Empress Eugénie on her visit to Zululand. The subordinate positions on the medical staff remain very nearly the same as given in our columns two or three weeks ago.

AWARD OF THE BOYLSTON PRIZE.

THE *Boston Medical Journal* of June 15 observes:—"Our advertising columns contain the notice of the award of the Boylston Prize to T. M. Dolan, F.R.C.S., of Halifax, Yorkshire, for an essay on 'Sewer-gas—What are its Physiological and Pathological Effects on Animals and Plants? an Experimental Inquiry.' This is the third successive occasion on which the prize has been awarded to a competitor outside the United States. It is a cause for congratulation that America can offer prizes sufficiently liberal for international competition. It was pleasing rather than otherwise when the first award to an Englishman showed that the competition was not limited to the inhabitants of a single country; that that award should be immediately followed by two others of like nature is far from flattering. We trust that it is a nobler motive than selfishness that causes us to hope that the next announcement may be more in accord with national pride."

ADULTERATION AND THE REVENUE.

WE learn from the *Grocer* that a chop of tea, consisting of over a hundred half-chests, imported from Hong-kong as "extra choicest Ningchow Congou," was sold publicly at from 6d. to 6½d. per lb., and has since been resold at a profit and distributed throughout the country. The top of each package consists of sound tea, but the remainder is composed of willow or other leaves mixed with some substance which has become putrid. According to the terms of sale, no allowance is usually made on account of damage, rubbish, etc., after the goods have left the warehouse, but in this case several of the selling brokers have allowed the packages to be returned. The Customs authorities, however, not only passed it, but refuse to return the duty which had been paid on the lots which the brokers took back from their customers. It is high time that the inspection of imported articles of food was entrusted to scientific men independent of the Customs and Excise, who seem by force of their surroundings ever ready to postpone considerations of public health to those of revenue.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—CERTIFICATE IN SANITARY SCIENCE.

ARRANGEMENTS are being made by this corporation to grant a certificate in Sanitary Science under the following conditions:—(1.) Stated examinations will be held quarterly in the months of January, April, July, and October. Special examinations may be held at such other times as the President shall appoint. (2.) Every candidate for the certificate in Sanitary Science must be a Licentiate in Medicine of the College, and must return his name to the Registrar of the College a week before the examination, and lodge with him a testimonial of character from a Fellow or Member of the College, or from a Fellow of the Royal Colleges of Physicians or of Surgeons of London, Edinburgh, or Dublin. (3.) The fee for the examination shall be five guineas. (4.) The examination will be conducted by five examiners, three to be selected from the Censors and additional examiners of the College, and one examiner in Sanitary Engineering, and one in Sanitary Law. (5.) The examination will comprise the following subjects:—1. Engineering, including hospital and house construction, sewerage, drainage, ventilation, water-supply. 2. Law—The Acts of Parliament relating to public health, duties of medical officers of health. 3. Etiology and Prevention of Disease—Epidemiology, contagion, infection, hereditary influence, accommodation and conveyance of the sick, management of hospitals. 4. Chemistry—Air, water, food. 5. Meteorology, Climatology, Vital Statistics. (6.) The following books are recommended to candidates:—1. Engineering—Eassie's "Sanitary Arrangements for Dwellings" (Smith, Elder, and Co.); Corfield's "Treatment and Utilisation of Sewage" (Macmillan); Galton's "Construction of Hospitals" (Macmillan). 2. Law—The laws of the realm relating to public health, including "The Public Health (Ireland) Act, 1878"; "The Artisans and Labourers' Dwellings Acts"; "The Vaccination Acts," etc. 3. Etiology

and Prevention of Disease—Parkes's "Manual of Practical Hygiene" (Churchill); Grimshaw, Furlong, Emerson Reynolds, and J. W. Moore's "Manual of Public Health for Ireland" (Fannin and Co.). 4. Chemistry—Ganot's "Physics" (Longmans); Emerson Reynolds' "Lessons in Experimental Chemistry," "Roscoe's "Lessons in Elemental Chemistry," and Frankland's "Water Analysis for Sanitary purposes" (Van Voorst). 5. Meteorology and Vital Statistics—Parkes's "Manual of Hygiene," "The Manual of Public Health for Ireland," and the article on Statistics in the "Cyclopædia of Anatomy and Physiology" (Longmans). The candidates will be examined by papers, and in the laboratory on analytical chemistry. In case of rejection the admission fee will not be returned.

BRITISH HOSPITAL AT JERUSALEM.

A MEETING was held on the 7th inst. in the Jerusalem Chamber at Westminster, with the object of establishing a British Hospice and Ophthalmic Dispensary in Jerusalem, under the management of the Order of St. John of Jerusalem. The meeting was largely attended, and was presided over by the Earl of Shaftesbury. Great Britain is the only European power which has no hospice or similar establishment in Jerusalem, though this state of things has not arisen from any absence of interest or effort in the matter on the part of our countrymen. For some years the Chapter of the Order of St. John have been endeavouring, but vainly, to obtain a site for a hospital. At length, however, a firman has been received from the Sultan, conceding, as a gift, a piece of ground of about an acre in extent for the purposes of the Order. On this site it is proposed to erect, so soon as the necessary funds can be obtained, a building which may be used as a hospice and a dispensary for the treatment of ophthalmic diseases, which, as is well known, are most sadly rife among the poorer classes in Jerusalem. It is calculated that about £2500 will be required for building purposes, and an income of £400 a year for the support of the proposed institution. The proposal was warmly approved by the meeting, and an executive committee was appointed. The movement has the cordial sympathy of the Prince of Wales and the Duke of Connaught, and it will, we are sure, be approved of by the profession. There ought not to be any real difficulty in raising the funds required.

THE HEALTH OF TORQUAY DURING THE YEAR 1881.

THERE is a genuine tone of satisfaction observable throughout the annual report of Mr. Paul Karkeek, the Medical Officer of Health for the Torquay Local Board, which deals with the sanitary condition and improvements of that locality during the year 1881. At its outset the report records that after nearly four years' agitation and opposition there is every probability that in the course of a few months the town will stand possessed of a sanitarium or contagious diseases hospital, which will at length place it in a satisfactory position for isolating the initial cases in any infectious outbreak. The building will no doubt be still further appreciated, as it will, of course, be provided with a mortuary; since, during the past year, on a difficulty arising as to the disposal of a body, it had eventually to be removed to the Town Hall, where, as can readily be imagined, it caused "great inconvenience." The result of last year's census was certainly not expected in Torquay: the population, which had always been estimated locally at about 27,000, proving to be only 24,760. Some explanation of this, Mr. Karkeek thinks, is found in the fact that, while in 1871 the average number of persons per house was 7·05, in 1881 it was only 6·92. Of late years numbers of houses have been built in the neighbourhood expressly for the working-classes, and an improved condition of health has been the natural result; the number of deaths recorded during 1881 is only 372, the lowest record since 1874, and giving a rate of about 15·4 per 1000 persons living. The number of deaths from phthisis was 52, a total very much less than the average of previous years, but, as the report remarks, the mortality under this head must always be high in a special health-resort like Torquay.

VITAL STATISTICS OF SCOTLAND FOR THE FIRST QUARTER OF 1882.

THE report of the Registrar-General for Scotland for the first quarter of the present year gives the number of births registered during that period in that portion of the United Kingdom as 31,206; it further records that the birth-rate has fallen short of the average of the first quarter of the ten years immediately preceding by 0·186 per cent. For every ten thousand of estimated population, the annual birth-rate was 330, or in other words, 3·30 per cent., whereas the average rate during the corresponding quarter of the previous ten years was 3·486 per cent. Of the eight principal towns, Greenock showed the highest, and Edinburgh the lowest, population of births. Of the total number of births, 2715, or 8·7 per cent., were illegitimate, the rate of illegitimacy being highest in the mainland rural districts. During the whole quarter there were registered on an average 346·7 births per diem, and the proportion of boys to girls was nearly as 105 to 100. The deaths registered during this March quarter numbered 18,265, constituting an annual proportion of 193 deaths to every ten thousand of estimated population. So low a death-rate has not been recorded in Scotland in the first quarter of any year since the Registration Act came into operation. This favourable result keeps pace with what has already been recorded in the report of the Registrar-General for England for the same period, since he also remarks that the death-rate for the first quarter of the year is the lowest returned for any similar period since civil registration was established in 1837. In Leith the death-rate was 180 per ten thousand of estimated population; in Dundee, 194; in Edinburgh, 197; in Aberdeen, 208; in Greenock, 228; in Perth, 246; in Paisley, 247; and in Glasgow, 251. Zymotic diseases caused 391 deaths in January, 376 in February, and 360 in March; these constituted about 16·1 per cent. of all deaths referred to specified causes. It is again singular to note the immunity enjoyed by Scotland from small-pox, only one death having occurred from this disease in the whole quarter; the case being that of a male, in Edinburgh, aged twenty-five, who died during the month of March. Whooping-cough and measles proved the most fatal of the zymotic diseases; the mortality from the remainder calling for no special comment. In January 93 violent deaths were registered, in February 80, and in March 71; of these only 12 were described as suicidal. On turning to the records of the weather during this first quarter, it is found that the chief characteristics of January were the very high barometric pressure, combined with its great monthly range, and with that an unprecedentedly high mean temperature. Following these were other lesser symptoms, all favourably disposed towards fine healthy weather. February was distinguished by high barometric pressure, large range of barometer, and its almost inevitable accompaniment of extra strength of wind. The temperature was very high for the month—higher than ever before recorded. March was on the whole rather stormy, as marked by a low barometric pressure, a large monthly range, and extra strength of wind; the temperature was again unusually high, and the rainfall unusually heavy.

THE PARIS WEEKLY RETURN.

THE number of deaths for the twenty-eighth week of 1882, terminating July 13, was 884 (476 males and 408 females), and among these there were from typhoid fever 44, small-pox 11, measles 18, scarlatina 2, pertussis none, diphtheria and croup 41, erysipelas 3, and puerperal infections 5. There were also 41 deaths from tubercular and acute meningitis, 165 from phthisis, 11 from acute bronchitis, 43 from pneumonia, 105 from infantile athrepsia (36 of the infants having been wholly or partially suckled), and 36 violent deaths (27 males and 9 females). A great diminution of deaths has thus taken place, and, with the exception of typhoid fever (which has increased from 35 to 44), all the epidemic affections have participated in this. The births for the week amounted to 1165, viz., 585 males (443 legitimate and 142 illegitimate) and 580 females (418 legitimate and 162 illegitimate): 102 infants were either born dead or died within twenty-four hours, viz., 65 males (44 legitimate and 21 illegitimate) and 37 females (27 legitimate and 10 illegitimate). On this occasion Dr. Bertillon furnishes a comparison of the number of births and deaths which occurred during the first half-year of 1882 with those of 1881:—

	Births.	Deaths.
1881	30,120	30,058
1882	31,630	31,887

It is to be remembered, however, that the last census has shown that the population of Paris increases by an annual mean of 50,000 individuals. A comparison of the epidemic affections occurring in the first half of the two years furnishes the following results:—

	Typhoid fever.	Small-pox.	Measles.	Scarla-tina.	Diph-theria.	Puerperal infections.
1881 . .	1,206	698	341	240	1,155	178
1882 . .	989	439	704	106	1,529	184

THE HEALTH REPORT ON OKEHAMPTON FOR THE YEAR 1881.

DR. LINNINGTON ASH, Medical Officer of Health to the Okehampton Rural Sanitary Authority, in presenting his annual report for the year 1881, has to record a decrease in the population of the Union—as shown by the last census—of 2287 persons. The birth-rate for the year is given as 27·7, and the death-rate as 15·9 per 1000 persons living; the former is 6·2 below the average for England and Wales, but the report explains that a low birth-rate is to be expected in this locality, since the adults of both sexes are drafted off to towns and large centres of population as soon as full age is attained. The death-rate is 3·0 below the average for the kingdom, and as regards the last two quarters is satisfactory, since it may be taken as nearly typical of what should, and probably would, exist in this high moorland and sparsely-peopled district in the absence of any special causes, such, for instance, as the prevalence, to an unusual extent, of infectious disorders. During the past year, however, the district has suffered from scarlet and enteric fevers, and also from diphtheria, 11 per cent. of the mortality being attributed to zymotic diseases. In August last a special report was made by Dr. Ash, which showed that in and around the village of Bratton Clovelly there had been during the previous nine months sixty cases of diphtheria, equal to about one in four of the entire population (240). At the village of North Tawton, again, there was an outbreak of enteric fever, which speedily assumed epidemic proportions. It is frequently difficult, Dr. Ash remarks, to discover the precise origin of outbreaks of this fever, and the first cause in this instance is still a mystery; how the young man, the subject of the first case, contracted the disease cannot be traced. It was distinctly averred by some that he had never left the village for even a single day, whilst others state that he went to Exeter; here, as usual, is a link wanting in a chain of evidence otherwise unbroken and conclusive. The well of water belonging to the house in which this man was taken ill became polluted from the surface by the washings of utensils, and by the house-slops thrown into an insecure drain connected with the pump-trough; every person who afterwards drank of the water was struck down with the fever, and each case could be clearly and undoubtedly traced to this specifically polluted well. The report, indeed, affords conclusive evidence that, like so many of these isolated districts, that of Okehampton is conspicuously defective in the matter of water-supply, and in an efficient system of excrement removal.

MISPLACED ECONOMY OF THE AMERICAN SENATE.

THE number of the *Bulletin of the National Board of Health* for July 1 contains a notice that "The appropriation for printing being exhausted, pending legislation, the further issue of the *Bulletin* will be suspended." It will be much to be regretted if the fit of economy which has seized Congress arrests the course of so important a publication for long. The mischief which will ensue appears also in other directions, for at the third annual meeting of the American Surgical Association, held at Philadelphia, June 2, Dr. D. W. Yandell moved a resolution to the effect that this body had learned with deep regret that the Senate Committee on Appropriations had reduced the annual appropriation for the museum and library of the Surgeon-General's Office from $10,000, as passed by the House of Representatives, to $5000; and added a second resolution, indicating to the Senate the mischief such a course would entail by curtailing the benefits of these institutions, which are a legitimate source of national pride. Great efforts are being made to induce the Senate not to act up to the recommendation of its Committee; and great will be the dismay on the part of the frequenters of medical libraries on this side of the Atlantic if the continuation of Dr. Billings' invaluable "Index Catalogue" is likely to be endangered or greatly delayed.

DIPHTHERIA AT GUNNISLAKE.

TOWARDS the end of last year, Dr. Blaxall, acting on behalf of the Local Government Board, instituted an inquiry into an outbreak of diphtheria which occurred in the village of Gunnislake, in the rural sanitary district of Tavistock. The first case which marked this outbreak was observed during the week ended August 21 last, and the epidemic extended to the first week in December. During that period forty-six families in all were invaded, with one hundred cases and ten deaths. Sore-throat and scarlet fever had been very general in the village during the previous fifteen months, though in a mild form, some hundreds of cases occurring, with only six deaths. This disease was also still present at the time of Dr. Blaxall's inquiry, often running side by side with diphtheria in the same house. With reference to diphtheria, the report says that examination of the medical records goes to show that it is endemic in the district, one, two, or more cases appearing every now and again, their origin being occasionally (upon what grounds it is not stated) ascribed to contaminated water or to some filth nuisance. The first sufferer in the present instance was a child in attendance at the infant-school; inquiry failed to elicit any evidence as to the origin of the disease—the lapse of time (sixteen weeks) militating greatly against obtaining reliable information. The disease was confined to the infant-school till the week ending September 11, when the mixed school became implicated; after which the disease gradually extended until most parts of the village became involved. After careful inquiry, Dr. Blaxall attributes the spread of the infection to personal

intercommunication; at every step it was proved that free interconrse existed between the infected and the healthy. Children continued to attend school up to the date of attack; others were unwell, but still able to go to school for awhile, till at last they became too ill to do so; others, again, would be kept at home for a day or two on account of sore-throat, then go to school for a day or two, and at length be laid up with diphtheria. The sanitary condition of the village, the report says, is eminently unsatisfactory, with reference specially to the want of efficient sewage, and to the general prevalence of excremental nuisance; but these conditions, though undoubtedly calculated to exercise a prejudicial effect upon health, were by no means peculiar to the infected houses or localities in contradistinction to other houses exempt from diphtheria. So, likewise, as regards the water-supply; throughout the village this was generally derived from one and the same source. Milk, on the contrary, was procured from various dairies; but there was no marked incidence of attacks upon families getting milk from any one particular dairy. These several channels, therefore, Dr. Blaxall observes, may be excluded from having exercised any direct agency in the progress of the epidemic. With regard to the measures adopted to arrest the progress of the disease, practically, the report says, these were confined to the closing of the schools for a fortnight, during which period a marked influence was observed on the spread of the epidemic; but obviously the period was too limited, as was proved by the reappearance of cases on the schools being reopened. Usually, Dr. Blaxall adds, much importance is attached to keeping schools open; but, if this is to be done during the prevalence of dangerous infectious disease, the facts detailed in the present report show the necessity of having ready at command means of isolation and efficient disinfection (both absent upon the present occasion), combined with strict supervision, both to prevent the too early return to school of those who have suffered from such disease, and to insure the due regard of the several provisions of the Public Health Act relating to the exposure of infected persons and things. It must be observed, moreover, that whatever may be the amount of "instruction" given in these Gunnislake schools, there is a deplorable absence of education by example in decency and cleanliness. Dr. Blaxall says: "I visited the schools two or three times, and on each occasion the privies were in a revoltingly filthy condition. The floor and seats of the infant-school privy were sodden with filth and wet; and the boys' urinal of the mixed school bestrewn with excrement."

The agreement between the London School of Medicine for Women and the Royal Free Hospital has been renewed for a further term of five years, the scheme having worked to the entire satisfaction of all concerned. Five more students of the School have passed the Previous, and two more the Final Professional, Examinations of the King and Queen's College of Physicians, Ireland, during the current month.

Mr. Wyld, the well-known geographer, of Charing-cross, has brought out new maps of the Isthmus of Suez and Lower Egypt, and of Alexandria and its Neighbourhood, showing the forts and military defences, that are models of clearness and beauty of execution and of fulness of information, and are marvellously cheap.

The late Dr. Silver.—The funeral of this gentleman took place on Saturday last. Besides his widow and own immediate friends, we noticed Dr. Cholmeley, Dr. F. Churchill, Dr. Sangster, Dr. Herman, Mr. Cantlie, F.R.C.S., Mr. T. M. Stone, and others.

THE LATE PROFESSOR F. M. BALFOUR, M.A., LL.D., F.R.S.

Not quite two months have passed since the Professorship of Animal Morphology in the University of Cambridge was created for Mr. F. M. Balfour, Fellow and Lecturer of Trinity College, in recognition of his eminence as a scientific investigator and his special value as a teacher of natural science; and now we have to record, with great regret, that his brilliant career has been cut short by a mountaineering accident in Switzerland. We have received the following notice of Professor Balfour from one of our contributors, who speaks from personal knowledge:—

"The sadly premature death of Professor Francis Maitland Balfour is not only an irreparable loss to the University of Cambridge, but also a grievous personal loss to his many friends in many countries; and it is the withdrawal of a powerful intellect from a department of science where such powers as his can be ill spared. His death happened on the 22nd inst., in Switzerland, from the effects of a mountaineering accident. He had been a great traveller, having made good use of vacations to visit most parts of Europe, from Lapland to Greece, and he had even made the voyage through the Straits of Magellan. During term time in Cambridge he lectured several times a week, and directed the practical teaching of classes which had latterly become so large, so much appreciated, and so much a part of the established order, that the University conferred on him the rank and stipend of a Professor. Amidst these almost self-imposed duties of a teacher, he found time to produce an amount of original work which has seldom been equalled in so short a period. His rapid productiveness was owing, in the first instance, to his keenness and acuteness, and secondarily, to his methodical habits of working, of noting scientific memoirs, and of conducting scientific correspondence and exchanges. A great monument of all these qualities, and of his wide knowledge and grasp, remains in his 'Treatise on Comparative Embryology'—a work in two volumes, which he wrote, illustrated, and put through the press in the two or three years that some men would have given to the planning of so novel an undertaking. The work was both well designed and well executed, and it was at once translated into French and German. The materials for it were, on the whole, abundant; but Mr. Balfour had to work afresh over many parts of his subject, as well as to harmonise the whole, and illuminate it with the great guiding idea of evolution. In particular, he worked out fully the development of the Sharks and Rays, and of the Araneina among invertebrates; while he elucidated numerous and fundamental points in the development of the tissues and organs in connexion with the chick and other common embryonic forms.

"Several years ago he was elected a Fellow of the Royal Society, and last year he received one of the Royal medals, and was put on the Council; the University of Glasgow conferred on him her LL.D. degree in 1880; and about a year ago the Committee of the Athenæum Club elected him a member under their extraordinary powers; while the Cambridge Philosophical Society, almost in the same week, elected him their President. These honours crowded upon him before he was thirty, but not before he had well deserved them. Few men in England, or out of it, would have had so large a share in shaping the course of thought about those great biological questions which are now a concern to all thinking persons; and perhaps no one would have brought to the task a more severe and rigid regard for fact, or a more profound reverence for the plain truth.

"Mr. Balfour's hard-working devotion to science, and his ambition to do something intellectually great for his name and country, were all the more to his honour, from the circumstances of his birth and fortune. He was closely related, in the maternal line, with the Scottish house of Lauderdale, and with the English house of Salisbury, and his eldest brother, a member of the House of Commons, is a territorial magnate in two Scottish counties. In private life he was modest, generous, and open. All who came in contact with him, and especially those who were admitted to his friendship, experienced the charm of his enthusiasm no less than the mastery of his powerful mind."

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Parsons on the Holywell Urban District.

In January last, Dr. Parsons was instructed by the Local Government Board to report on the sanitary condition of the Holywell Urban District. Holywell is an old and decaying market town in Flintshire, taking its name from the remarkable spring called St. Winifred's Well, which is said to yield one hundred tons of water a minute; the population has declined from 3540 in 1871, to 3091 in 1881; it is further stated that only a single new house has been erected there during the past twenty years. Examination of the Registrar-General's returns showed that the zymotic mortality of the district was below the average of that for England and Wales, except in the single instance of diphtheria, of which a severe outbreak, associated with defective sanitary conditions, occurred in 1878. The general death-rate has, however, been high for a country town, the average rate for the five years 1876-80 having been 23·5 per 1000 per annum, as compared with 21·0 for England and Wales during the same period; and if the deaths of paupers belonging to Holywell, who died in the union workhouse, were added, the death-rate would have been still higher. This locality was carefully inspected by Dr. Blaxall on behalf of the Board in 1875, on account of the prevalence of scarlet fever and other epidemic disorders in the district. The *précis* of his report on that occasion Dr. Parsons gives as follows:—"Epidemic of scarlet fever; want of means for isolation and disinfection: slaughter-houses in unwholesome relation to dwellings; exposure of blood and offal, and also of refuse, in the vicinity of houses; very defective drainage; privy nuisances; dilapidated dwellings." The state of matters described by Dr. Blaxall remains, Dr. Parsons adds, substantially the same at the present day, and he has therefore reprinted, as an appendix to the present report, the recommendations which were made to the Sanitary Authority of Holywell after Dr. Blaxall's inspection, in order to be able on the present occasion to record under each head how little has been done to carry out the suggestions made. In the matter of sewerage, water-supply, and the provision of a hospital for infectious cases, the Authority did certainly endeavour to secure the co-operation of the large manufacturing villages of Greenfield and Bagillt, both in the neighbouring rural district, but the negotiations in every case fell through, and no steps were taken to remedy the existing deficiencies. In summing up the result of his recent inquiry, Dr. Parsons states that from the position and circumstances of the Holywell Urban District, and its close association with parts of the rural district, especially Greenfield and Bagillt, it would seem that the measures required in both districts would be most conveniently and economically carried out by the combined action of the urban and rural authorities. Unfortunately, hitherto all attempts at combination have failed, mainly, it would appear, through the objection of the inhabitants of places in the rural districts to bear a share of the heavy rates incurred by the Holywell Local Board for the construction of a market-hall and public baths, in which they feared that by a combination they would somehow become involved, whereas, as a matter of fact, a combination for such objects as drainage, water-supply, etc., would not involve the rural districts in the payment of the rates for the market-hall and the baths. Further, Dr. Parsons is of opinion that the intimate connexion between the town of Holywell and adjacent places in the rural district, indicates that there would be advantages in the same medical officer of health acting for both districts, since, in that case, he would have information as to the danger to either district of the introduction of any infectious disease which might be prevalent in the other, and might also assist to bring about such improvements as could be best carried out by combination between the two authorities.

Mr. John Spear on the Prevalence of Fever at Maryport.

In the month of June, 1881, the Local Government Board received information that "fever" was prevalent in Maryport, and an application to the Medical Officer of Health elicited the fact that fever was almost epidemic in the locality, and in regard to its nature had "from the mild typhoid form assume l the form of typhus." In January of the present year, therefore, Mr. John Spear was instructed to visit the district and inquire into the nature and circumstances of the outbreak. During his visit, which lasted from January 12 to 14, he saw two cases of fever (the only two remaining under treatment at that time) at a stage when a diagnosis could be made. Both, Mr. Spear remarks, were unequivocal attacks of true typhus; one, especially, was associated in its causation with many preceding cases,—it was, indeed, one of a long and unbroken series that had constituted the major part of the outbreak, and its diagnosis, therefore, was possessed of a wider application. Several persons recovering from the disease were likewise seen, and they presented all the appearance—in marked distinction from the aspect of typhoid cases—of typhus convalescents. The epidemic visitation which formed the immediate subject of the present inquiry was, it may be said with certainty, one of typhus fever. The origin of the infection, Mr. Spear says, could not at the time of his inspection be determined. There were rumours of earlier cases of "fever," and two deaths, it should be noted, were registered from "typhoid" during the last months of 1880; but the first undoubted case of typhus, and the one from which apparently all subsequent mischief sprang, occurred in a wretched, crowded tenement in Englesfield-street. As a matter of course, Mr. Spear made a thorough examination into the sanitary condition of the town. Maryport, he observes, is a place that one might expect to harbour typhus, should the disease once make its appearance there. The houses everywhere are built on a quite insufficient area, generally with no through ventilation; the rooms are extremely small, and the filthiness of them so shocking, that the fœtor often compels an immediate retreat from the open door. Windows are commonly made not to open, or a single small pane on hinges is all the means of ventilation provided. There are many cellars also, unfit for habitation, judged of by any standard whatever, that are occupied separately as dwellings. Some of these are entirely beneath the surface of the ground, and sometimes a back cellar, receiving its sole supply of light and ventilation from the cellar in front, will be used by several persons as a sleeping apartment. Overcrowding is very common, owing, it is said, to the number of labourers now employed on new and extensive dock works, and not unfrequently it is of the most indecent kind. If to the foregoing short extract of the report be added the facts that the town is as yet unsewered, that the privies throughout the district are insufficiently attended to, and that the Authority possesses no hospital for the isolation of cases of infectious disease, it will be readily understood why Mr. Spear regarded the locality as one most favourable for the development of typhus. The recommendations appended to the report are scarcely necessary to be alluded to, but Mr. Spear suggests that it would facilitate the abatement of overcrowding in the town if it were practicable for the Authority, as harbour trustees, to erect temporary huts or barracks for the accommodation of the large number of young unmarried men employed in Maryport upon dock and harbour works.

Dr. Blaxall's North and South Tawton, Devonshire.

In January of the present year, Dr. F. H. Blaxall was instructed by the Local Government Board to report upon the sanitary condition of North and South Tawton, in the Okehampton Rural Sanitary District. The shocking condition of this locality has been annually brought to the notice of the authorities by the report of the Medical Officer of Health, but little seems to have been done to remove the nuisances existing. The water-supply of the district is derived partly from extraneous sources, and partly from local wells or springs; with regard to the wells, such of these as came under observation were sunk in a soil polluted by soakage from imperfect drains, privy-pits, manure-heaps, etc. The water, therefore, from these sources continues to be of the same dangerous character as when reported upon in January, 1879, upon which occasion the then Medical Officer of Health, Dr. Blyth, pronounced the wells to be generally polluted; seven out of eleven samples of water analysed by him being contaminated by sewage, and one being of doubtful quality. It is almost needless to observe that the sewerage of the

locality is of an imperfect and irregular character; and with regard to the arrangements for excrement removal and disposal, Dr. Blaxall observes that it is not necessary to give examples of the several nuisances that came under notice in connexion with privies—he simply considers it enough to state that in all his experience he has seldom met with such aggravated instances of the kind. The Authority have, the report says, nominally adopted such of the model by-laws as relate to the cleansing of privies and earth-closets, and to the keeping of animals, etc.—requiring, among other things, that no swine shall be kept, nor any swine-dung deposited, within the distance of sixty feet from any dwelling-house,—but these by-laws are allowed to remain a dead letter. In summarising the result of his inquiries, as regarded North Tawton, Dr. Blaxall says that there are found existing in that town, to a flagrant degree, conditions, both general and local, prejudicial to health, and specially favourable to the development and spread of such diseases as enteric fever, an outbreak of which had occurred just previous to his visit. In South Zeal (a portion of South Tawton), the report adds, in 1879, Dr. Blyth noted the continuance of enteric fever for a period of seventeen or eighteen months; since the disease, once introduced, found in the general prevalence of exceremental nuisances peculiar facilities for its spread and maintenance. Even at the present time the village remains in such a condition as to render it liable to a recurrence of the fever in an epidemic form, yet, Dr. Blaxall remarks, under proper sanitary administration there should be no danger of the disease spreading, seeing how favourably the village is situated—swept as it is by the fresh breezes of Dartmoor, with an abundant water-supply easily accessible, and a slope of land which affords facilities for efficient drainage. But the Authority is, as usual, crippled by the universal fear of expense, and until the time shall come (if it ever does) when the administration is taken out of the hands of incompetent local boards, this locality, in common with many others of a similar description, will continue in its present unsatisfactory and unsanitary condition.

FROM ABROAD.

Prolapse of the Ovary with Hysteria.

From one of the clinical lectures of Prof. Goodell, of the University of Pennsylvania, we take the following observations, as reported in the *Philadelphia Med. Reporter* for May 20:—

The woman, aged twenty-nine, married, and the mother of four children, exhibited various symptoms of a nervous and hysterical character, which caused her much suffering. "I shall now try to find out what is the matter," Dr. Goodell observed, "and what can be done to her relief. I find behind the womb a little body, and pressing on this I give the woman great pain. There are some fragments of fæces in the rectum, but when I press backwards on this body it slips from under my finger, giving her a great deal of pain. I think, then, that we have a prolapsed ovary to begin with, and further examination confirms me in that belief. There is a slight laceration of the cervix, but that does not cause the trouble of which she complains."

Having passed in the uterine sound, and found that the womb was in good position and measured 2·5 inches, having only a slight erosion, Prof. Goodell (the woman having been removed) continued—

"This is a case that nineteen out of twenty physicians would say was suffering from disease of the womb. They would treat her for this erosion. She would go from one to another, and they would make various applications to the womb, but she would get no better. That is not the kind of treatment she needs at present, although that will do some good. The trouble with this woman is that she is below par; her nervous system is exhausted. She says that she has had a great deal of trouble. She is in a state of high nerve-tension, pale and anæmic. She made a great fuss when I knew that I was not hurting her; but I did hurt her when I pressed on the prolapsed ovary. Why is it prolapsed? It is so on account of her general condition. All the organs suffer; but the ovaries and the womb, the reproductive apparatus, which is the most exacting during menstrual life, suffers the most. The spinal cord also sympathises, and we have irregular distribution of blood, congestion, and anæmia. In other words, as I sometimes illustrate it, we may have blushings and blanchings, as we have on the surface of the body, occurring in the womb. I am afraid—I become pale; I am ashamed—I grow red. What are these? They are produced by emotion; they are due to mental action on the nerves, and to the action of the nerves on the bloodvessels. So it is in this condition—the womb is blanching, and again it is blushing. The same thing is occurring in the spinal column and in the heart. This is a mere illustration; but when you ask me what is the disease, what is its pathology, what it really is, I will be hanged if I can tell you. The woman in this nervous condition has no control of herself. Her nerves are not in a state of equilibrium; they are no longer acting harmoniously. One side of the brain is acting more than the other; one set of nerves is acting differently from the others—they are not pulling together; and the result is, we get these conditions of spasms, in which her friends think that she is going to die. If her friends did not think so, she would get over them more quickly. The symptoms are alarming. You will be called to a woman in spasms, and in nine cases out of ten they will be hysterical; but you must not make a mistake, for they may be epileptic convulsions, or due to anæmia. There is one symptom which I think that you will not find in other forms of spasms—*i.e.*, tremulousness of the eyelids. The eyelids will be closed, but they will be tremulous. When you have this symptom you can safely consider the spasm due to hysteria. I know of no other way of distinguishing hysteria by a glance, except the general appearance of the patient, and this can only be learned by experience.

"What is the best thing to do in a hysterical convulsion? The best thing is to give a shock, mental or physical. If you are plucky enough to throw a bucket of water over her, she will recover very quickly; but you will probably be shown to the door by the irate father and mother. A good method of producing a shock is to place a piece of ice over the ovarian region or at the nape of the neck. The girl gasps, and at once the state of fixity is removed. If you would administer two teaspoonfuls of Hoffmann's anodyne, or a drachm of the milk of assafœtida were put into the bowel, it would probably relieve the condition, but you wish for something that will act a little more promptly. My advice is to get down an emetic if you can. I do not think it possible for any woman to be hysterical when suffering from nausea. If the throat is so rigid that she cannot swallow, give the emetic by the bowel. If you let a woman see that you are not scared worth a cent, she is going to get over her spell very quickly. If she can have the whole house anxious about her, it is nuts for her to crack; and if she can frighten the doctor, it is the biggest nut of all. If you are the old and tried physician of the family, you might remark, so that the patient can hear you, 'If she don't get better soon, I shall have to heat the poker red-hot, and put it on her spine—that spine is in a very bad condition.' I venture to say that there is not one woman in twenty who will not begin to get better. I do not advise you to do it, however, for it would be like throwing a bucket of water over her—the father would probably invite you to the door. Make a powerful impression. If an emetic fails, use Hoffmann's anodyne. This is really a good remedy; it is a diffusible stimulant, more powerful than valerian, with which it is sometimes combined. As I say, give an emetic if you can, for a woman must be very plucky if she can go through the nausea produced by an emetic and keep up her hysteria."

Inoculation of Tubercle.

Drs. Dieulafoy and Krishaber have addressed to the Académie de Médecine (*Union Méd.*, July 20) a note supplementary to a former communication (*Medical Times and Gazette*, September 3, page 293) on the inoculation of monkeys with tuberculous matter. Those of the forty monkeys employed in the first series of experiments (sixteen in number), which were inoculated with tubercle, died affected with tuberculosis in a proportion four times more considerable than in the twenty-four which were not inoculated, but only kept for comparison. The present series of experiments was instituted for the purpose of observing the effects of inoculating monkeys with non-tuberculous pus. On June 21, 1881, ten monkeys were submitted to the

hypodermic injection of some drops of pus derived from a traumatic abscess of the arm of a woman forty-four years of age, and in complete health. By July 9 (eighteen days afterwards) two monkeys had died—one from acute pleurisy, and the other from dysentery—no trace of tubercle having been found at the autopsy. On August 6 (forty-six days after inoculation) a third monkey died, numerous tuberculous granulations being found in the lungs, spleen, liver, and peritoneum. On the sixty-fifth day a fourth monkey died of dysentery, without any trace of tubercle; and on the hundred-and-fifth day a fifth monkey died from acute bronchitis, without any trace of tubercle. No other death took place. A year has now elapsed since these experiments were performed, the effects of which must therefore be considered as exhausted long since. It results that of these ten inoculated with non-tuberculous pus one only died tuberculous; and the twenty-four even which were reserved for comparison furnished six deaths from tuberculosis. These, in fact, lived promiscuously with the sixteen of the first series inoculated with tubercle, and of which the great majority died tuberculous; while the subjects of these new experiments were not mingled with animals infected with tubercle. So that it may be asked whether contagion through cohabitation should not be taken into account with regard to the great differences observed in the appearance of tubercle among them.

The Duration of Isolation in Infectious Diseases.

The Minister of Public Instruction some time since addressed a note to the Académie de Médecine, requesting that body to furnish him with an answer to a question of great importance to schools and families, viz., How long should a scholar suffering from infectious disease be kept separated from his schoolfellows? This was referred to a committee, consisting of MM. Roger, Bergeron, and Hillairet, and their report appears in the *Bulletin de l'Académie* for July 18. M. Hillairet, after stating the periods of duration of contagious action of the various diseases concerned, arrives at these conclusions:—1. Pupils attacked by varicella, variola, scarlatina, measles, mumps, or diphtheria should be rigorously isolated from their schoolfellows. 2. The duration of this isolation should be forty days for variola, measles, scarlatina, and diphtheria, and twenty-five days for varicella and mumps. 3. This isolation should not be broken through before the convalescent has taken baths. 4. The clothes which the pupil was wearing when he fell ill should be passed through a stove at more than 90° Cent. of temperature, then submitted to sulphur fumes, and thoroughly cleansed. 5. Bedding and curtains of the room, the walls and furniture of the apartment, should also be thoroughly disinfected and washed, and then aired. 6. A pupil who has been attacked by one of these diseases while away from the establishment should not be readmitted unless furnished with a medical certificate that the above-mentioned prescriptions have been complied with.

Women-Doctors in America.—Dr. Chadwick, of Boston, has published, in the *Boston Med. Journal* for June 8, a letter in favour of the reversal of the decision of the Massachusetts Medical Society not to admit women-doctors to membership. He has collected a large body of facts as to the present status of women-doctors, from which he derives the following facts, which he terms "startling":—1. No other medical society in the Union to which women have applied for admission now shuts its doors. 2. Seventeen State medical societies, representing the oldest and most enlightened communities, have expressed a unanimous opinion that sex should be no disqualification for admission. 3. The fact that 115 women have had their fitness to practise medicine acknowledged by the authorised censors of the medical profession of America, effectually demonstrates that women are generally recognised throughout the country. This number, however, does not include all the graduates of accredited colleges who are now practising. Of the 276 *alumnæ* of the Woman's Medical College of Pennsylvania, 32 have died, 23 are not in practice, 55 have not been heard from, and 166 are practising. Of 430 female graduates of various colleges, 390 are known to be in actual practice.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The following are the arrangements for the fiftieth annual meeting of the British Medical Association, at Worcester, on Tuesday, Wednesday, Thursday, and Friday, August 8, 9, 10, and 11, 1882.

President.

Benjamin Barrow, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

President-elect.

William Strange, M.D., Senior Physician to the General Infirmary, Worcester.

An Address in Medicine will be delivered by W. F. Wade, F.R.C.P., Physician to the Birmingham General Hospital.

An Address in Surgery will be delivered by William Stokes, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons, Ireland.

The business of the Association will be transacted in Eight Sections, viz.:—

Section A.—Medicine.

(Council Room, Guildhall.)

President—Thos. Clifford Allbutt, M.D., F.R.S.
Vice-Presidents—George W. Balfour, M.D.; William Henry Broadbent, M.D.; G. H. Philipson, M.D.
Secretaries—Edwin Rickards, M.B., 14, Newhall-street, Birmingham; H. Ashby, M.D., 13, St. John-street, Manchester.

Section B.—Surgery.

(Recorder's Court, Guildhall.)

President—Augustin Prichard, F.R.C.S.
Vice-Presidents—T. W. Walsh, F.R.C.S.; Reginald Harrison, F.R.C.S.; T. H. Bartleet, M.B., F.R.C.S.
Secretaries—F. E. Manby, F.R.C.S., 10, King-street, Wolverhampton; Richard Clement Lucas, M.B., F.R.C.S., 18, Finsbury-square, E.C.

Section C.—Obstetric Medicine.

(Committee Room off Assembly Room, Guildhall.)

President—William Leishman, M.D.
Vice-Presidents—Henry Vevers, M.R.C.S.; J. G. Sinclair Coghill, M.D.; Arthur W. Edis, M.D.
Secretaries—C. J. Cullingworth, M.D., 25, St. John-street, Manchester; Tom Bates, L.R.C.P., Worcester.

Section D.—Public Medicine.

(Civil Court, Shire Hall.)

President—Alfred Carpenter, M.D.
Vice-Presidents—Alfred Hill, M.D.; Horace Swete, M.D.; E. T. Wilson, M.B.
Secretaries—George Haynes Fosbroke, jun., M.R.C.S., Bedford, Redditch; Francis Edward Atkinson, L.R.C.P., Settle, Yorkshire.

Section E.—Anatomy and Physiology.

(North Wing Committee Room, Guildhall.)

President—George M. Humphry, M.D., F.R.S.
Vice-Presidents—S. S. Roden, M.D.; Frank Payne, M.D. Gerald Yeo, M.D.
Secretaries—J. B. Haycraft, M.D., Mason's College, Birmingham; James Shutet, M.B., F.R.C.S., 58, New Broad-street, London.

Section F.—Pathology.

(South Wing Committee Room, Guildhall.)

President—J. Hughlings-Jackson, M.D., F.R.S.
Vice-Presidents—W. R. Gowers, M.D.; H. T. Butlin, F.R.C.S.; William Smith Greenfield, M.D.
Secretaries—Sidney Coupland, M.D., 14, Weymouth-street, London; F. Treves, F.R.C.S., 18, Gordon-square, London.

Section G.—Ophthalmology.

(County Grand Jury Room, Shire Hall.)

President—James Vose Solomon, F.R.C.S.
Vice-Presidents—David Everett, F.R.C.S.; Frederick Mason, M.R.C.S.; Edwyn Andrew, M.D.
Secretaries—George Edwin Hyde, L.R.C.P., Worcester; J. A. Nunneley, M.B., 22, Park-place, Leeds.

Section H.—Otology.

(City Grand Jury Room, Shire Hall.)

President—W. Laidlaw Purves, M.D.
Vice-Presidents—George P. Field, M.R.C.S.; A. H. Jacob, M.D.; E. Cresswell Baber, M.B.
Secretaries—J. J. Kirk Duncanson, M.D., 22, Drumsheugh-gardens, Edinburgh; Peter McBride, M.D., 20, Alva-street, Edinburgh.

The Honorary Local Secretaries are—Geo. W. Crowe, M.D., Shaw-street, Worcester; H. C. Moore, M.R.C.S., 7, King-street, Hereford; Thelwell Pike, M.D., 2, Montpellier, Great Malvern.

The Honorary Treasurer is G. A. Sheppard, M.R.C.S., Worcester.

PROGRAMME OF PUBLIC MEETINGS, ETC.

Tuesday, August 8.

2.15 p.m.—Meeting of Committee of Council. (Committee Room off Assembly Room, Guildhall.)
3 p.m.—Meeting of the Council of 1881-82. (Council Room, Guildhall.)
4.15 p.m.—Service in the Cathedral, with Sermon by the Dean of Worcester.
8 p.m.—General Meeting. President's Address; Annual Report of Council, and other business. (Assembly Room, Guildhall.) Tea and coffee after the meeting.

Wednesday, August 9 (Jubilee Day).

9.30 a.m.—Meeting of the Council of 1882-83. (Council Room, Guildhall.)
11 a.m.—Second General Meeting. Address in Medicine.
1.30 p.m.—Luncheon given by the Worcester and Hereford Branch to members of the Association (limited to 500); and afterwards presentation of Bust of Sir Charles Hastings to the Mayor and Corporation of Worcester. (Great Hall, Shire Hall.)
3 to 5.30 p.m.—Sectional Meetings.
7.45 p.m.—Special Service in the Cathedral, at which, by permission of the Dean, Haydn's Sacred Oratorio *The Creation* will be performed by the Philharmonic Society, assisted by members of the Worcester, Gloucester, and Hereford Choirs, and conducted by W. Done, Esq., Organist to the Cathedral.

Thursday, August 10.

9 a.m.—Meeting of the Committee of Council. (Committee Room off Assembly Room, Guildhall).
10 a.m.—Third General Meeting. Reports of Committees. (Assembly Room, Guildhall.)
11 a.m.—Address in Surgery. (Assembly Room, Guildhall.)
2 to 5.30 p.m.—Sectional Meetings.
6.30 p.m.—Public Dinner. Tickets will not be issued later than twelve o'clock on the day of the dinner. There will be two kinds of dinner ticket: one for those who take wine, and the other for abstainers; 21s. and 14s. each.] (Assembly Room, Guildhall.)

Friday, August 11.

9.30 to 11.30 a.m.—Sectional Meetings.
11.30 a.m.—Concluding General Meeting. Reports of Committees. (Assembly Room, Guildhall.)
3 p.m.—Garden Party, at Madresfield Court, Great Malvern, given by the Lord-Lieutenant and the Countess Beauchamp.
9 p.m.—Soirée of the President and G. W. Hastings, Esq., M.P.

Section A.—Medicine.

1. Dr. W. S. Playfair will open a discussion on the Systematic Treatment of Aggravated Hysteria and allied forms of Neurasthenic Disease.

2. Dr. Balfour on Chlorotic Murmurs.

3. Dr. Leech on the Treatment of Cardiac, Hepatic, and Renal Dropsy.

The following gentlemen have promised to take part in the discussions:—Dr. McCall Anderson (Glasgow), Dr. W. Carter (Liverpool), Dr. Austin Flint (New York), Dr. F. T. Roberts (London), Dr. W. R. Thomas (Sheffield), Dr. Ross (Manchester).

Section B.—Surgery.

1. Mr. J. Greig-Smith will open a discussion on Early Operative Treatment of Joint-Disease as a Preventive of Excision, in which it is hoped the influence of Antiseptics in Excisional Surgery will be discussed. Mr. Henry Morris (London), Mr. Pridgin Teale (Leeds), Mr. J. F. West (Birmingham), and Mr. Eddowes (Shrewsbury) will take part in the discussion.

2. Mr. Howard Marsh will open a discussion on Bone-Setting. Mr. B. Roth will take part in the discussion.

Section C.—Obstetric Medicine.

A discussion on Subinvolution of the Uterus, its causes, its relation to uterine disease, and its preventive treatment, will be opened by Dr. John Williams (London). The following gentlemen have promised to take part in the discussion: Dr. W. S. Playfair, Dr. Robert Barnes, Dr. Henry Bennet, Dr. Granville Bantock, Mr. Knowsley Thornton, Dr. J. Wallace (Liverpool), Dr. A. W. Edis, Dr. Routh, Mr. Lawson Tait (Birmingham), Dr. J. M. Bennett (Liverpool), and Dr. Sinclair Coghill (Ventnor).

Section D.—Public Medicine.

A discussion on the Public Medicine Aspects of the Alcohol Question will be opened by Dr. Norman Kerr (London).

Section F.—Pathology.

1. A debate on the Morbid Anatomy and Pathology of Diabetes will be introduced by Dr. D. J. Hamilton, of Aberdeen. The following gentlemen are expected to take part in the discussion: Dr. Pavy, Dr. S. Mackenzie, Dr. Dreschfeld, Dr. Saundby, and others.

2. Mr. Jonathan Hutchinson will open a debate on the Origin of Tumours. The following gentlemen have already intimated their intention to take part in the debate: Dr. Thin, Dr. Sangster.

Mr. H. T. Butlin will give a Microscopical Demonstration upon the chief form of Tumours.

Dr. W. R. Gowers will give a Microscopical Demonstration upon Diseases of the Spinal Cord.

Section G.—Ophthalmology.

1. Dr. Edwyn Andrew will open a discussion on Extraction of Senile Cataract in its Capsule: modes of procedure.

2. A discussion on the following subject will be opened by Mr. E. Nettleship: To what extent do the signs derived from the examination of the Eye and its Appendages contribute to the localisation of Central Nervous Diseases?

The following gentlemen have expressed their intention of taking part in the discussions: Dr. Wolfe (Glasgow), Dr. O. Sturges, Mr. Haynes Walton, Mr. Juler, and Mr. H. R. Dew; also, if their other duties permit, Dr. W. R. Gowers and Dr. Laidlaw Purves.

Section H.—Otology.

1. A discussion on the connexion between Diseases of the Ear and General Medicine will be opened by Mr. George P. Field. The following gentlemen have promised to take part in this discussion: Dr. A. H. Jacob (Dublin), Mr. Thomas Webster Redlands, near Bristol), Mr. Lennox Browne (London), Dr. Cresswell Baber (Brighton), Dr. Kirk Duncanson (Edinburgh).

2. A discussion on Auditory Vertigo, especially in regard to its Differential Diagnosis, will be opened by Dr. Woakes. The following gentlemen have promised to take part in this discussion:—Dr. McBride (Edinburgh), Dr. Cresswell Baber (Brighton).

Drs. Hughlings-Jackson, Clifford Allbutt, and Gowers have promised to take part in the discussions, provided their other duties permit.

REVIEWS.

Clinical Lectures on Diseases of the Nervous System. By THOMAS BUZZARD, M.D. Lond. London: J. and A. Churchill. 1882. 8vo, 466 pp.

DR. BUZZARD's volume forms an important and welcome addition to our works on nervous diseases, a subject which more and more engrosses the attention of observers in the present day. Dr. Buzzard does not profess to deal with the whole range of nervous disorders, or even with the whole series of spinal diseases, but some of those of which he treats are amongst the most obscure and hitherto the least described of any. Among them are some of the nature and phenomena of which medical practitioners in general have but a very hazy idea, for in ordinary practice it does not fall to the lot of one man to see numerous examples, and English works on the subject have been conspicuous by their absence, though papers, cases, observations, and lectures are scattered not unplentifully in our journals and in the *Transactions* of our medical societies. In this book, however, and in his previously published lectures, Dr. Buzzard has for the first time, we think, brought many facts before English readers, and has focussed up his observations, and the goodly harvest which he has reaped from the field of experience enjoyed by him in the Hospital for the Paralysed and Epileptic.

A considerable portion of the book is devoted to the examination of the phenomena of tabes dorsalis; and in the ten lectures upon this subject we have an account of it which is, so far as we are aware, altogether novel—at any rate in an English version,—and of the greatest importance to the practitioner. Before examining this portion, however, we must draw attention to the first two lectures, which are closely connected with it. The subject of these is the symptom known as the knee-phenomenon, or tendon-reflex, and its diagnostic importance in many diseases. There is in these chapters a very careful description of the mode of testing this patellar tendon-reflex, and a review of the physiology, upon which writers are by no means agreed. It is the opinion of Dr. Buzzard that the muscular contraction, even if not directly due to reflex action, is at any rate dependent upon conditions which demand the integrity of a reflex spinal arc. Such conditions are not found in posterior spinal sclerosis (progressive locomotor ataxy, or tabes dorsalis): the portion of the posterior column adjacent to the posterior horn—which is the seat, essentially, of tabes—is largely composed of sensory root-fibres; and by this flaw on the sensory side of the nervous arc the reflex action is destroyed. The occurrence of the lesion in this spot accounts for another well-marked and frequent symptom of tabes, on which our author lays great stress—the occurrence of the so-called lightning pains. These are described as like an electric shock, as excruciating spasms, knife-like and horrible, darting instantaneously like a flash of lightning. Of fifty-four cases of tabes in the author's experience, in one case only was there an absence of pains. They are very often called rheumatic, neuralgic, or gouty, and their tendency to occur in paroxysms with intervals of immunity favours such views. The absence of the tendon-reflex and the occurrence of these lightning pains are the most constant of all the diagnostic symptoms of tabes dorsalis, and yet till lately they have not been brought into the prominence which it is necessary to ascribe to them. For, as we need not remind our readers, this disorder has been far better known under the name of "locomotor ataxy," and by most the insecurity of gait is looked upon as the chief symptom. All the earlier writers, as Romberg and Duchenne, lay stress upon it; the former, indeed, asserting that in no case has he found it wanting. And so it happens that the idea does not enter into the mind of many that a patient may be the subject of this disease unless the incoordination of movement be well marked. But Dr. Buzzard shows that this is not a constant symptom, nay, he mentions one gentleman, the subject of lightning pains, in whom no patellar-reflex could be found, yet whose delight was mountain-climbing. Ataxy is but one symptom, though not of unfrequent occurrence; another is optic nerve atrophy, and these are known and recognised; but attention is called to others less known and less recognised, some of which are apt to be, and have been, confounded with lesions characteristic of totally different diseases. This remark is peculiarly applicable to the joint-affections found in tabetic patients, which were first described by M. Charcot. According to him, we find an extreme tumefaction of the entire limb, composed of—(1) a considerable hydrarthrosis; (2) a diffused swelling, for the most part of hard consistence, in which the ordinary symptoms of œdema are not usually apparent, and this arthropathy is generally unaccompanied by fever or pain. The swelling may subside, and the joint return to its former condition; but, on the other hand, grave disorders may supervene—erosions of the osseous surfaces, various luxations, or even total destruction of the joint. This affection is in some respects suggestive of chronic or rheumatoid arthritis, and has been mistaken for it, which mistake may be aided by the patient having suffered from the "lightning pains" of tabes, which he calls "rheumatic." The two diseases, however, are distinct, and the diagnosis is aided by various other symptoms which are noticed in tabes, but not in rheumatoid arthritis. One is a liability to spontaneous fracture of the shafts of the bones, and this is no part of the pathological history of rheumatoid arthritis (arthritis deformans). The defect of nutrition, which leads rapidly to the production of these arthropathies and to the actual wearing away and disappearance of the articular extremities, also renders the bones fragile, undergoing a true trophic lesion, a fatty degeneration with disappearance of the mineral substance. M. Charcot considers the osseous lesions as the primordial fact, the joint-affections being only, like the fractures, secondary manifestations of the defective nutrition of the osseous tissue. The diagnosis is further aided by the gastric symptoms of tabes: these—the *crises gastriques* of Charcot,—Dr. Buzzard tells us, are of extraordinarily frequent occurrence in cases of tabetic arthropathy. The patient suffers from severe spasms and pain in the epigastric region, together with vomiting. The attack may last a few days, and then may subside, to recur, perhaps, once in six weeks or two months with such severity as to be taken for the result of malignant disease of the stomach. These gastric crises are suggestive, Dr. Buzzard observes, of irritation of the roots of the vagus nerve in the medulla oblongata, and "we have only to imagine the inflammatory changes which affect the posterior root-zones of the cord, extending upwards into the medulla oblongata and irritating the roots of the vagi, to see a complete explanation of the peculiarities of the gastric crises." With these gastric attacks, which are not of very frequent occurrence, the osseous lesions are frequently associated. Dr. Buzzard found eight cases of associated gastric crises out of twenty-one cases of tabetic arthropathy. But these are not all the symptoms of this disease. Another is a peculiar condition of pupil first described by Dr. Argyll Robertson. The pupils do not contract to light, but do contract during accommodation. This, unlike the last-mentioned symptom, is extremely frequent. Out of fifty-one tabetic patients examined by Dr. Vincent in Charcot's clinique, there were only four whose pupils reacted normally. The author looks on this as another example of impaired reflex action which lends support to the view that tabes essentially attacks the sensory side of the cerebro-spinal system. Another symptom, but far less common, is a recurring crop of herpes, depending beyond question on irritative alteration of the nerve-districts supplying the skin.

We have also an interesting chapter on Ophthalmoplegia Externa occurring in tabetic patients. The symptoms mentioned as occurring in various organs show what a wide-reaching disease this is, and how mistakes of diagnosis may occur if the entire group is not carefully investigated; it is the author's opinion that tabes may even be an occasional source of origin of a calculus in the bladder of the kind called by Sir Henry Thompson "local." There may be paralysis of the bladder, the urine may be retained, and cystitis result; and in the mucus of the bladder, in these circumstances, a phosphatic calculus may easily be formed.

As our notion of locomotor ataxy is that of a progressive disease, the prevalent idea is that it soon advances to the death of the patient. No doubt the prognosis in this disease is practically hopeless; but Dr. Buzzard reminds us that cases may go on for a very long time without the symptoms becoming materially intensified, and even with encouraging periods of improvement. He gives at some length the case of a gentleman who has suffered for upwards of eighteen years from optic atrophy, lightning pains, and herpes, without any sign of ataxy having presented itself. In connexion with the prognosis, the question arises whether the disease may in any case have a syphilitic origin, and whether treatment

by specific remedies is likely to be attended with success. That there is a remarkable frequency of association between tabes and syphilis, is incontestable; but our author thinks that the time has not arrived for us to draw safe inferences as to the precise nature of the relation, and—what is of great importance—he tells us that he has never known a cure to result from specific measures. He has met with cases which improved for a time whilst iodide of potassium was being administered; but from mercurial treatment, even in cases where the history of syphilis was distinct, he has seen no good, but on the contrary, as it seemed, a tendency to harm. There are many points of interest with regard to this disorder: one is the immunity which females enjoy. Only 10 per cent. of cases occur amongst the latter, and in this it resembles closely another disease which presents many points of resemblance, viz., general paralysis of the insane.

Although anti-syphilitic treatment is of no avail in tabes dorsalis, Dr. Buzzard draws attention to some nervous disorders where a diagnosis of syphilis, or even in some cases an experimental trial of specific remedies, has led to triumphant results. Cases of neuritis, of rapid paralysis, of cerebral stupor, and of paraplegia, yielded to such treatment, and Dr. Buzzard gives most interesting lectures on each of these subjects.

No less instructive are his remarks on Paralysis Agitans or Shaking Palsy and its symptoms. One of these symptoms to which he specially calls attention is the voice. Not only is the utterance slow and jerky, as Charcot has pointed out, but the voice has a peculiar "piping" character. "It is the conventional voice of the old man upon the stage"; the voice of the sixth of the seven ages of man, the childish treble which "pipes and whistles." This voice, we read, is not found in exceptionally aged persons not afflicted with paralysis agitans. Attention is also directed to the fixed expressionless look and immobile features which characterise these patients. The walk too is peculiar, the body being bent forward and the head maintaining a set position. These symptoms may indicate the presence of the disease even when there is little or no shaking.

Space does not allow us to do more than enumerate some important lectures on cases of rapid and almost universal Paralysis, on Spastic Paraplegia from myelitis, on Cervical Paraplegia and Syphilitic Paraplegia. There is a lecture on Tetany, and one full of interest on the Phenomena of Transfer produced in Epileptics by the application of enciveling blisters. Dr. Buzzard narrates how a ring of blistering fluid painted round the arm may prevent fits for months. We commend this to the attention of those who "cure" epilepsy by clitoridectomy, castration, tying of arteries, and the like, after which no fits occur for the next few months. Finally, we may say that this book is of the very greatest interest, and as a clinical work is a new departure in this branch of medicine; that it is provided with an excellent index, as well as with a table of contents; and that it is altogether well brought out.

Foods: their Composition and Analysis. By Alex. Wynter Blyth. London: C. Griffin and Co. 1882. Pp. 586.

Notwithstanding the number of works that have appeared lately, dealing with the analysis of foods, we have no hesitation in recommending the present as one without which no analyst's library will be complete. Indeed, when the second volume, on Poisons, shall have been published, the two will form a library in themselves. They are founded on the author's "Practical Chemistry," now out of print; but this volume contains so much additional matter as to be in every sense a new work. It has been the author's aim to make it as complete as possible, and some will be inclined to think that he has carried his intention too far, and that the forty pages on the history of adulteration, and legislation thereon, both at home and abroad, from the earliest ages, however interesting from an antiquarian standpoint, partake too much of the nature of "padding" when introduced into an analysts' *vade mecum*. More practically useful is his analysis of the Sale of Foods and Drugs Act, with comments on each clause, illustrative cases, and the author's opinions on points not as yet judicially settled. The instructions to purchasers with a view to analysis are clear and good. The full text of the Act of 1875 is given at the end of the book.

Coming now to the practical portion of the work, we have descriptions of certain special forms of apparatus peculiar to or specially valuable in food analysis, and not described in ordinary chemical text-books; such are Soxhlet's, Clausnizer's, and Mr. Blyth's own apparatus for the extraction of fats, etc., by means of ether, petroleum, and other volatile solvents, Jolly's spiral balance, and a modification of Mr. Lane-Fox's mercury-pump. A full account of the spectroscopic and other properties of the various colouring matters follows a short section on microscopy and photography. The author next passes to the examination of ash, and the various processes, chemical and physical, for the estimation of sugar, Soleil's saccharometer being illustrated by a large plate. The starches are treated with equal fulness, Muter's and Vogel's systems being given. Under the section on honey, we find the astounding statement that the Americans have succeeded in producing not merely a factitious honey, but even an artificial comb made of paraffin, which, though closely resembling wax in appearance, can be easily distinguished from it by being unaffected on boiling with sulphuric acid.

For the detection of alum in flour he recommends the simple method of shaking up the flour with chloroform, which allows the crystals to subside, or the logwood and gelatine test; but for the quantitative estimation of this adulterant in bread he very properly gives Wanklyn and Dupré's as the only trustworthy process.

The chapter on milk is certainly the most complete treatise in existence, leaving nothing to be desired by the food analyst or physiological chemist. It would be impossible to examine it in detail, but we may mention one or two very practical suggestions as to the possibility of detecting water added in small quantity, by the examination of the ash for sulphates and nitrites, the former existing in milk only as traces, and the latter never present at all. A trick of dairymen summoned for diluting their milk is mentioned, which is worthy of being borne in mind. Aware of the remarkable poverty of "fore milk," they have been known to milk a cow after many hours' rest in the presence of magistrates or inspectors not up to the secret, and gravely hand over the sample as indisputably pure, though poorer than that which had been condemned. We would draw attention to the value of Soxhlet's process, as enabling a much larger number of analyses to be made in a short time—a great desideratum if we would keep a constant check on the trade.

Analyses of abnormal milks and of those of different animals are given, but we must be allowed to question the correctness of one at least—that which represents the milk of the hippopotamus as entirely devoid of albuminoids. Several analyses of the milk of cows suffering from diseases are given, and the most recent researches on the communicability of tubercle are fully discussed. Mr. Blyth considers that the exaggerated statements of manufacturers as to the value of condensed milks—*i.e.*, as to the degree of concentration—call for interference. A somewhat long but very clear form of certificate employed by him deserves the attention of analysts.

Twenty pages are devoted to the examination of butter, and several methods recently proposed for the separation of the fats of butter and foreign fats are described: such are that of Mr. Creek, founded on their different solubility in solution of carbolic acid; that of Dr. Muter, for the determination of the relative proportions of the soluble and insoluble fatty acids in each; and Koettstorfer's direct titration with alcoholic potash.

Other articles of food and drink are treated with as much detail as they severally permit, and the chapters on alcohol, wine, beer, and spirits are as complete as that on milk.

The work concludes with an equally exhaustive chapter on the examination and analysis of water, in which for the first time each of the rival processes for the estimation of the organic matter is described without prejudice or partiality, giving the reader the choice of Wanklyn's, Frankland's, or Forchammer's, which last, with but slight modifications, has been adopted by the Society of Analysts. To each chapter is appended a bibliography, English and foreign; but the minuteness with which every process, even those proposed within the last twelvemonth, is described, renders such references almost superfluous. Elaborate tables, some of them indispensable, and others calculated to lighten the labours of the analyst, are freely introduced. The illustrations of microscopic appearances are, however, not equal to those in

Dr. Hassall's work in definition or execution, but this is a point of little moment, since plates can never take the place of personal familiarity with the objects themselves.

NEW INVENTIONS AND IMPROVEMENTS.

UMNEY'S FLUID EXTRACT OF CINCHONA.

We have received from Messrs. Wright, Layman, and Umney, of Southwark-street, a sample of this excellent and elegant preparation. It is made, we believe, from East Indian red bark—from the variety, that is, which is known as *Cinchona succirubra*, and which not only contains a considerable quantity of quinia, but is also rich in cinchonidia and the other alkaloids of bark. One fluid ounce of the extract is equivalent to one ounce of the bark, and may be given in doses of from ten to thirty minims. It appears to be a reliable and very convenient preparation.

ESSENCE OF MALT, PREPARED BY DENCE AND MASON'S PATENT PROCESS.

This admirable malt extract is manufactured by Messrs. Brand and Co., of Mayfair, and is in every way worthy of their high reputation. It consists of "the essence or soluble portion of pure English malt of the finest quality, without admixture or flavour," is a highly concentrated extract, and the process by which it is made is so well and carefully carried out that the danger of any alteration of the diastase is successfully avoided. The preparation is more fluid than malt extracts generally are, is sweet and pleasant to the taste, and may be taken in beef-tea, in cocoa, or diluted with water or other fluids. It forms also a useful and agreeable vehicle for the administration of cod-liver oil.

SPARKLING BLAND.

"Bland," which is a slightly effervescing beverage, is really pleasant, wholesome, and refreshing. It is manufactured by Messrs. Chapman and Co., of Duke-street, Portland-place, W., by the fermentation of milk; and during this process of fermentation *lactic acid* is largely developed. It is therefore, with some justice, claimed for it that it is nutritious, and promotes digestion; and it is recommended as a tonic, as well as a substitute for alcoholic drinks. Bland is supplied with orange, lemon, ginger, and other flavours, and may be confidently recommended as an agreeable, useful, and non-medicated drink.

The Paris Night Service.—Dr. Passant, reporting for the quarter ending June 30, states that the total number of visits amounted to 1518, being 106 more than those for the corresponding quarter of last year. Men formed 37 per cent., women 50 per cent., and children 13 per cent. The mean number of visits per night was 16·48. Of these visits 178 were on account of miscarriage or labour, and in 35 instances the persons had died before the physician could reach their abodes.—*Gaz. des Hop.*, July 20.

Suicides in Philadelphia.—In the Section of State Medicine of the American Medical Association, Dr. Lee read a paper on "Suicides in the City and County of Philadelphia during the Last Decade." From December 31, 1871, to January 1, 1881, out of 12,936 deaths requiring a coroner's inquest, 636 were from suicide, or 53 in per 1000 inquests. In opposition to the experience of European observers, he had found that suicide occurred most frequently among the married of both sexes. Of the 636 cases, in 444 the persons were married, in 138 single, and in 54 unknown. Of the 138 unmarried, 109 were males and 29 females; of the 54 whose condition was unknown, 47 were males and 7 females. Most suicides occurred in May, August, and September, and fewest in February, March, and January. Of the 636 cases, 24 were minors. The greatest number were between the ages of thirty and fifty. The modes of suicide were:—Hanging—119 males, 22 females; shooting—114 males, 8 females; laudanum—79 males, 17 females; cut throat—70 males, 13 females; drowning—46 males, 11 females; arsenic—11 males, 8 females. The remainder took their lives in various ways.—*New York Med. Record*, June 24.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Birch, Henry P., Harley-street, W.
Carlyan, Edward T., Truro.
Fenner, Robert N., Greenwith.
Knight, Frederick, Swansea.
Russell, Robert H., Farningham.
Sheppard, William J., Putney.
Thring, Edward T., Birkenhead.
Tresidder, Edward S., Dulwich.
Williams, Edwd R., Corwen, Wales.
Wilson, Mervyn S., Kilburn.

Four gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. The following gentlemen passed on the 21st inst., viz.:—

Back, Herbert H., Hethersett, Norfolk.
Barber, Alfred, Basingstoke.
Berry, James, Upper Bedford-place.
Blazy, Arthur F., Crowndale-road, N.W.
Bollen, Frederick J., Port Adelaide, South Australia.
Frost, George, Dorking.
Howell, James B., Wandsworth.
Marsh, Nicholas P., Liverpool.
Maude, Arthur, Highgate.
Nicholson, Robert A., Ilfracombe.
Skipper, Edward, Dalston.
Viney, Josiah E., B.A., M.B. Cant., North Hill, Highgate.

Two gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and eleven candidates were rejected. The following gentlemen passed on the 24th inst., viz.:—

Anderson, Alfred J., Blackpool.
Carr, Thomas, Brixton, S.W.
Claremont, Louis B., Camden Town.
Davies, William T. F., Swansea.
Eastes, Frederick, Folkestone.
Elwood, Charles R., Wisbeach.
Gibson, John H., Trinity-square, S.E.
Hern, William, Ashburton, Devon.
Jacob, Arthur H., Surbiton.
Jones, Isaiah H., Maida Vale.
Quick, Frank, Coventry.
Toller, Chas. W.E., L.R.C.P. Lond., Wimbledon.
White, Ernest A., Leeds.

Four gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and nine candidates were rejected. The following gentlemen passed on the 25th inst., viz.:—

Banatvala, Hormusjee E., L.R.C.P. Lond., L.S.A., Bombay.
Campbell, Samuel G., M.B. Edin., Natal.
Freeborn, John C. R., Oxford.
Gordon, Edward L., L.S.A., Stockport.
Gracie, Charles B., Liverpool
Harratt, Henry, Brixton.
Kelly, Charles A., Mount-street, Grosvenor-square.
Lilly, Frederick J., Southampton.
Spong, William, Clapham.
Thomas, John L., L.S.A., Beaumaris.

Six gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and nine candidates were rejected. The following gentlemen passed on the 20th inst., viz.:—

Benjafield, William B., M.B. Edin., Leatherhead.
Beverley, Henry M., L.S.A., Bury, Lancashire.
Beverley, John M., L.S.A., Bury, Lancashire.
Fowler, Chas. O., L.S.A., Hereford.
Massey, Henry M., Camberwell.
Peacock, Robert K., M.B. Edin., Oldham.
Pryce, Thomas D., Newtown, Montgomeryshire.
Wilcox, Ernest, M.B.Ed., St. Neots.
Willcocks, Arthur D., L.S.A., Sparsdale Villas, W.
Wilson, Reginald W., Rotherhithe.

Three gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and twelve were rejected.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 20:—

Black, William Jones, Stretford-road, Manchester.
Scanlan, Arthur de Courcy, Hayter-road, Brixton.
Slater, William, Poplar Hospital.
West, John Arthur, Bickley Park, Kent.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Burgess, Christophe Venning, London Hospital.
Humphreys, Charles Style, Westminster Hospital.
Larder, Herbert, Westminster Hospital.
Wildey, Alexander Gascoigne, Guy's Hospital.

APPOINTMENTS.

, The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Cooper, G. F., M.R.C.S., L.R.C.P.—Resident Accoucheur at St. Thomas's Hospital.

Duncan, W. A., M.D., L.R.C.P., M.R.C.S.—House-Surgeon to St. Thomas's Hospital.

FELL, W., M.A., M.B. Oxon., L.R.C.P., M.R.C.S.—Assistant House-Surgeon to St. Thomas's Hospital.

HAIG-BROWN, C. W., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital.

JONES, WANSBROUGH, M.A., M.B. Oxon., B.Sc. Lond., M.R.C.S.—House-Physician to St. Thomas's Hospital.

MILTON, H. M., M.R.C.S., L.S.A.—Assistant House-Physician to St. Thomas's Hospital.

OWEN, ISAMBARD, M.D. Cant.—Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

WELLS, A. E., L.R.C.P., M.R.C.S.—House-Physician to St. Thomas's Hospital.

WHITE, E. F., M.R.C.S., L.S.A.—House-Physician to St. Thomas's Hospital.

BIRTHS.

BOISSIER.—On July 19, at Oak House, Pocklington, Yorks, the wife of Arthur H. Boissier, L.R.C.P., M.R.C.S., of a daughter.

BROWN.—On July 14, at Coombe Lodge, Rye-lane, Peckham, S.E., the wife of J. Alexander Brown, M.R.C.S., of a daughter.

DICKSON.—On July 19, at South View, St. Helier's, Jersey, the wife of John Edward Dickson, M.B., C.M. Edin., of a son.

GOODHART.—On July 24, at Hervey-road, Blackheath, S.E., the wife of James F. Goodhart, M.D., F.R.C.P., of Weymouth-street, W., of a son.

LITHGOW.—On July 21, at 1, Walton-place, Hans-place, S.W., the wife of Douglas Lithgow, M.R.C.P., of a son.

MARTIN.—On July 19, at Richmond, Limerick, the wife of Surgeon-Major W. T. Martin, M.D., A.M.D., of a daughter.

NECREDY.—On June 11, at Calle Morelos, Pachuca, Hidalgo, Mexico, the wife of Robert H. Necredy, M.D., of a son.

SHAPTER.—On July 19, at 1, Barnfield-crescent, Exeter, the wife of Lewis Shapter, M.D., of a daughter.

SYMES.—On July 23, at Ward's End, Halifax, the wife of Edmond West Symes, M.D., of a daughter.

WORLEY.—On July 23, at Brooke Lodge, De Beauvoir-road, N., the wife of William Charles Worley, L.R.C.P., of a daughter.

MARRIAGES.

BRODRICK—CROCKFORD.—On July 20, at Peasmarsh, Sussex, Charles Cumberland Brodrick, L.R.C.P., L.R.C.S., to Juba Selina, daughter of Henry Crockford, Esq., of Blackley Ash, Sussex.

CUTHBERT—TAPSON.—On June 20, at East London, South Africa, George Blythe, son of the Rev. George Cuthbert, rector of Llanllwchaiarn, Newtown, North Wales, to Emily, daughter of Alfred J. Tapson, M.B., of Gloucester-gardens, W.

HART—BERTHON.—On July 20, at Woolston, William Hamilton Hart, M.R.C.S., L.S.A., to Francis Elizabeth Margaret, daughter of E. P. Berthon, Esq., of Woolston, Southampton.

KIDWELL—WRIGHT.—On July 19, at Sandgate, John, son of A. E. Kidwell (of the firm of Kidwell and Son, Rochester), to Charlotte Maude, daughter of Frederick Thomas Wright, M.R.C.S., L.S.A., and L.M., late of Milton, Gravesend.

RATTRAY—BENNETT.—On July 20, at Maddington, Wilts, Dr. John Moysey Rattray, M.A., of Frome Selwood, son of R. G. Rattray, M.D., of Aberdeen, to Margaret Emily, daughter of the Rev. Canon Bennett, M.A., vicar of Shrewton-cum-Maddington, Wilts.

REES—LEWIS.—On July 14, at Port Elizabeth, Frederick Musson Rees, M.D., J.P., of Bedford, South Africa, son of Josiah Rees, M.D., of Bermuda, to Clare, daughter of William Lewis, Esq., of Crewe.

RICHARDSON—ETHERIDGE.—On July 13, at Ramsgate, Thomas William Richardson, M.R.C.S., of Surrey-street, Norwich, to Rose Louise, daughter of Major-General A. T. Etheridge, C.S.I., late Bombay Staff Corps.

TABOR—DURRANT.—On July 19, at Ipswich, John Minnett Tabor, Captain Royal Horse Artillery, to Emily Louisa, daughter of Christopher M. Durrant, M.D., F.R.C.P., of Ipswich.

TEMPLETON—ALLEN.—On July 11, at Malone, R. Stanser, eldest son of Robert Templeton, Deputy Inspector-General, F.R.C.S.I., of Cranmore, Belfast, to Jane, eldest daughter of Arthur Chichester Allen, J.P., of Collin, co. Antrim.

WALKER—GARDE.—On July 24, at Southsea, Surgeon-Major John Walker, B.A., M.B.T.C.D., A.M.D., to Mirrie, daughter of Henry Prendergast Garde, Esq., barrister-at-law.

DEATHS

ATKINSON, JOHN CHARLES, L.R.C.P., M.R.C.S., son of J. C. Atkinson, M.D., of Kew Green, at Broadstairs, on July 18, aged 32.

BARTLEY, R. T. H., M.D., late of Clifton, Bristol, at Norwood House, Weston-super-Mare, on July 21, aged 62.

FASSON, MARGARET S., wife of Charles Hamilton Fasson, Deputy-Surgeon-General, at Balrobin, Pitlochry, Perthshire, on July 22.

HINGSTON, ALTHA STEWART, daughter of C. Albert Hingston, M.D., at 3, Sussex-terrace, Plymouth, on July 21, aged 11 months.

OSWALD, LOUISA ANNE, wife of J. W. J. Oswald, M.D., F.R.C.S., at Kennington-road, London, S.E., on July 22.

POPPLETON, JOE WILLIAM, F.R.C.S., at The Grange, Horsforth, Leeds, on July 25, aged 67.

TAYLOR, CHARLES LAMB, M.D., at Goulburn, New South Wales, on February 6, aged 34.

WAKEFIELD, GILBERT, son of Thomas Wakefield, M.R.C.S., L.S.A. and M.S.A., of Canonbury, at The Lawn, Grosmont, Hereford, on July 23, aged 39.

WILMOT, ELIZABETH JANE, wife of Samuel G. Wilmot, M.D., at Vesey Place, Kingstown, on July 18.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ARDWICK AND ANCOATS DISPENSARY, AND ANCOATS HOSPITAL, MILLSTREET.—Junior House-Surgeon. Salary £100 per annum, advancing in the second year to £120. Furnished rooms and attendance provided. Candidates must be duly qualified. Applications and testimonials to be addressed to Alexander Forrest, Hon. Secretary, up to August 1.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer and Dispenser. Salary £120 per annum. Candidates must be duly qualified. Applications, stating age, whether single or married, together with recent testimonials, to be sent to the Secretary, D. J. Sloane, 80, Arcadia-street, Manningham, Bradford, Yorks, on or before August 10.

DUDLEY DISPENSARY.—Resident Medical Officer. (*For particulars see Advertisement.*)

EARLSWOOD ASYLUM FOR IDIOTS, REDHILL, SURREY.—Medical Superintendent. (*For particulars see Advertisement.*)

GENERAL HOSPITAL, BIRMINGHAM.—Resident Medical Officer and Resident Surgical Officer. The salary of each will be £130 per annum, with board and residence. Candidates for the office of Resident Medical Officer must be graduates in medicine of a university examination. For the office of Resident Surgical Officer they must be Fellows or Members of the Royal College of Surgeons in London, Dublin, or Edinburgh, and also possess a medical qualification entitling them to be registered. Applications, accompanied by certificates of registration, or diplomas, and testimonials, to be sent to W. T. Grant, House-Governor, on or before July 31.

NATIONAL DENTAL HOSPITAL, GREAT PORTLAND-STREET, W.—Assistant Dental Surgeon. Candidates must possess the degree or Licentiate of Dental Surgery. Applications to be sent to the Secretary on or before August 22.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-UPON-TRENT.—House-Physician. (*For particulars see Advertisement.*)

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary £100 per annum, with furnished rooms, coal, gas, and attendance (without board). Candidates must at least possess one qualification. They will be required to enter into the usual bond not to practise. Applications, enclosing testimonials, etc., to be addressed to the Secretary on or before August 8.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.]

RESIGNATIONS.

Chorlton Union.—Mr. G. R. Brebner has resigned the Openshaw District: area 606; population 19,168; salary £50 per annum.

Reading Union.—The office of Medical Officer for the Workhouse and Vagrant Wards is vacant by the resignation of Mr. T. L. Walford; salary £130 per annum.

Sunderland Union.—The office of Medical Officer of the Workhouse is vacant by the death of Mr. Joseph P. Crossby: salary £220 per annum.

Wincanton Union.—Dr. C. F. Stovin has resigned the Queen Camel District: area 8883; population 1847; salary £64 per annum.

APPOINTMENTS.

Boston Union.—Benjamin F. Smallman, L.R.C.S.Ire., L.K.& Q.C.P.Ire., to the Sutterton District.

Gainsborough Union.—Frank Newcombe, M.R.C.S. Eng., L.S.A., to the Newton-on-Trent District.

Ringwood Union.—Henry G. Dyer, M.R.C.S. Eng., L.R.C.P. Edin., to the District and Workhouse.

WE understand that an etching of the portrait of Mr. Luther Holden by Mr. Millais has been executed by Mr. Miller, of Devonshire-street, Portland-place, W., and that a copy has been presented to each of the subscribers.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Library will be closed on Monday, August 7, and, on account of some extraordinary building repairs, etc., will not re-open till Monday, September 18 next.

THE SODA TREATMENT OF BURNS AND SCALDS.—Mr. Peppercorne, writing in the *Popular Science Monthly* for March, claims to be the first person who discovered the soda treatment of burns and scalds, of which he published an account so long ago as 1844 in the *London Med. Gazette*. In this he showed that the application of a *saturated* solution of the bicarbonate, cold, at once relieved the acute pain, and if applied immediately, prevented blistering. A piece of lint or old rag, or even thick blotting-paper, should be cut of a size sufficient to cover the part, and kept constantly well wet with the solution. When the main part of a limb is burnt it should be plunged into a jug or pail of the solution and kept there till the pain subsides, or it may be soaked in a bandage which is kept constantly wet. "It is believed," Mr. Peppercorne says, "that a large proportion of practitioners are still unaware of the remarkable qualities of this easily applied remedy, which recommends itself for obvious reasons."—*Canada Med. Journal*, May.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 22, 1882.

BIRTHS.

Births of Boys, 1288; Girls, 1165; Total, 2453.
Corrected weekly average in the 10 years 1872-81, 2567·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	676	645	1321
Weekly average of the ten years 1872-81, corrected to increased population ...	897·5	811·6	1709·1
Deaths of people aged 80 and upwards ...	...	...	38

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	1	5	3	3	14	...	3	...	14
North ...	905947	1	4	4	4	12	1	2	...	26
Central ...	282238	...	2	1	1	5	...	...	...	10
East	692738	1	10	11	...	12	...	1	1	39
South... ...	1265927	1	16	9	5	15	...	2	1	29
Total	3816483	4	37	28	13	58	1	8	2	118

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·753 in.
Mean temperature	61·0°
Highest point of thermometer	73·4°
Lowest point of thermometer	48·9°
Mean dew-point temperature	53·0°
General direction of wind	S.W.
Whole amount of rain in the week	0·34 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 22, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending July 22.	Deaths Registered during the week ending July 22.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2453	1321	17·7	73·4	48·9	61·0	16·11	0·34	0·86
Brighton	109595	67	38	18·1	72·0	51·3	60·9	16·06	0·60	1·52
Portsmouth ...	129916	68	49	19·7	...	...	...	...	...	...
Norwich	88821	48	29	17·0	...	...	...	...	...	...
Plymouth	74449	43	24	16·8	67·2	54·5	58·8	14·89	1·14	2·90
Bristol	210134	157	61	15·1	72·0	51·3	60·9	16·06	·60	1·52
Wolverhampton .	76756	52	25	17·0	69·7	46·5	56·6	13·67	0·51	1·[illegible]
Birmingham ...	408532	290	126	16·1	...	...	...	...	...	...
Leicester	126275	82	60	24·8	71·0	49·0	58·8	14·89	0·29	0·74
Nottingham ...	193573	157	83	22·4	75·9	47·6	59·8	15·45	0·44	1·12
Derby	83587	41	13	8·1	...	...	...	...	...	
Birkenhead ...	86582	55	30	18·1	...	...	...		...	
Liverpool	560377	386	244	22·7	68·2	50·5	57·6	14·23	0·59	1·50
Bolton	106767	80	54	26·4	67·0	47·0	55·3	12·95	1·31	3·33
Manchester ...	340211	230	145	22·2	...	...	...	...	...	...
Salford	184004	134	85	24·1	...	...	...	...	...	...
Oldham	115572	91	45	20·3	...	...	...	...	...	...
Blackburn	106460	73	38	18·6	...	...	...	...	...	..
Preston	97656	77	57	30·4	...	...	...	...	...	...
Hudderssfield ...	83418	43	36	22·5	...	...	...	...	...	..
Halifax	74713	34	28	19·6	...	...	...	...	...	...
Bradford	200158	110	56	14·6	70·2	51·6	58·9	14·94	0·56	1·42
Leeds	315998	202	140	23·1	71·0	51·0	59·2	15·11	0·84	2·13
Sheffield	290516	206	93	16·7	70·0	49·0	58·8	14·89	1·46	3·71
Hull	158814	114	61	20·0	73·0	47·0	59·3	15·17	0·18	0·45
Sunderland ...	119065	95	57	25·0	77·0	50·0	60·9	16·06	1·09	2·77
Newcastle	147626	116	60	21·2	...	...	...	...	..	...
Cardiff	86724	67	32	19·3	...	...	...	...	...	...
For 28 towns ...	8469571	5571	3090	19·0	77·0	46·5	59·1	15·06	0·71	1·80
Edinburgh	232440	134	95	21·3	68·7	50·4	59·0	15·00	0·85	2·16
Glasgow	514048	426	220	22·3	...	...	...		...	...
Dublin	348293	217	146	21·9	67·7	48·1	58·1	14·50	1·02	2·59

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·75 in. The lowest reading was 29·35 in. at the beginning of the week, and the highest 30·02 in. on Thursday.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Erratum.—In the list of successful candidates at the July examinations of the King and Queen's College of Physicians in Ireland, printed in our last number, the name "Tones, Florence Nightingale," should be "Toms, Florence Nightingale."

The Lisbon Diet.—A correspondent asks if any of our readers can give the components of the above old remedy—made in lime-water.

M. A. Oxon.—The "Waynflete Professorship" has not yet been settled. Dr. Arthur Gamgee, F.R.S., the Brackenbury Professor of Physiology in Owens College, Manchester, is a candidate for the appointment. He is also Examiner in Physiology in the University of London.

The Alexandria Bombardment.—The *Times* correspondent, writing from Alexandria on the 19th inst., states—"With reference to Dr. Mackie, I may state that in the loss of the contents of his house is included an almost unique collection of calculi, the result of twenty-two years' surgical work in the Deaconesses' Hospital here, which he was about to present to the College of Surgeons, also his library and all his surgical apparatus."

H. M., Birmingham.—We published the following week the names of the provincial Fellows who voted on the occasion.

Metropolitan Fish Supply.—The metropolis will soon possess four fish markets instead of one. The principle of competition, with its good effects, we shall, in all probability, before long realise. The Shadwell Market and Billingsgate will be rival riverside competitors. The City fish monopoly at Billingsgate is gone, but the inland market, which has not yet been used, in Farringdon-street, and which was intended for the sale of fruit and vegetables, is to be utilised as a fish market. Such a market the Corporation is empowered to establish. The fourth fish market will be that about to be erected near the Elephant and Castle, and this, it is said, will be the largest fish market in the world. The Bill for it simply awaits the Royal assent.

Dr. Williams.—Mr. T. Spencer Wells, the President of the College, will deliver the next Hunterian Oration. John Hunter died in the board-room of St. George's Hospital in 1793. We are unable to state what relation Dr. John Baillie, Physician to the Hospital in 1735, was to the celebrated Dr. Matthew Baillie, who filled that office from 1787 to 1800. The interesting annual report of the Hospital will give you the desired information.

Triennial Election of Poor-law Guardians.—The result of the poll taken by sanction of the Local Government Board, on the question of triennial elections of guardians of the poor for Manchester, is a majority in favour of the proposed change, of the ratepayers who voted, of 9131.

The Dangers of the Dairy.—A case mentioned in the report of the Sanitary Committee, read at the last meeting of the Poplar District Board of Works, exemplifies the dangers of the dairy. In the course of a house-to-house inspection by the inspector of nuisances, he found a family, four members of which had been ill from small-pox during the previous five weeks. No medical man had attended the first case, nor had anything been done to prevent the spread of the disease, either in the house or out of it. The whole family was in a filthy and neglected condition, and the head of it was a man who during the five weeks had been in constant work in the employment of a dairyman, his duties being the delivery of milk. The existence of the disease in his family had been kept from the knowledge of his employer, who, however, dismissed him from his service on learning from the Board the circumstances of the case.

Anti-Vaccination, Eastbourne.—Seventeen anti-vaccinators were at the same hearing, last week, fined 20s. each and costs, at the Police-court, for neglecting to have their children vaccinated. Mr. Corrie Grant, a barrister, who defended, applied for, and was granted, a case for appeal.

Abstainer.—The Calcutta petitions referred to were presented to Sir Ashley Eden, who in reply said that while "no doubt there may be an increase of drinking, it is not among the class that frequents the liquor shops, it is among the middle classes who drink in their own homes. The alleged increase in intemperance is more imaginary than real." Any such increase, it appeared, was not due to multiplication of liquor shops, as the number of these shops had been reduced in Calcutta and its suburbs from 602 in 1871 to 403 in 1881.

Generosity.—A member of the governing body of the Wolverhampton General Hospital has just handed to the Treasurer £100 as a free gift, to be expended upon present requirements of the charity.

Death from the Sting of a Bee.—At an inquest held by the Coroner for Berkshire on the body of the wife of a farm bailiff, near Wantage, who had died from the effects of the sting of a bee upon her forehead, it appeared that she died in about an hour from the time she was stung, and before medical aid could be called in. The inquiry does not seem to have elicited anything satisfactory on the subject, the jury simply returning a verdict that the deceased met her death through the sting of a bee—a fact which seemed to them apparent.

Corrie.—We believe the Treasury Committee appointed to inquire into the best method of publishing official statistics has so far completed its labours that no more evidence will be taken.

G. F. G., Southsea.—No; formerly, when the Army Medical Service was not so popular as it is now, and it was difficult to fill its ranks by competition, it was considered desirable that the Secretary of State should have power to allow some of the first appointments to the Medical Department to be made by selection through the principal medical schools, but it was provided by the Warrant of 1880 that at least half should enter by competition. As a matter of fact, this power of nomination has never been exercised; all vacancies have been filled by competition.

The Force of Example.—Admiring the example set by the Princess of Wales and many distinguished English ladies, the Parisian ladies are now sending flowers to the hospitals and to the sick poor.

K. K.—Touching the conflict of the two branches of the Isle of Man Legislature as regards the election of a committee of the lunatic asylum, the Governor, to find a way out of the difficulty, proposed to lay the matter before the Home Secretary, but the Representative Assembly deems this procedure an interference with constitutional rights.

New Convalescent Cottage Home, Newhills, Aberdeen.—This institution has just been formally opened. It adjoins a portion of the Crabstone Woods, and is on Hope Farm, the property of Mr. Hay, of Seaton, who granted an acre of land for its site at a nominal annual rent. The total cost of the Home is about £650. Six patients were installed into the Home on the day of opening. It is proposed to keep it open during the winter season for persons suffering from spine-disease.

Matrimony in Japan.—The Japanese Government has lately drafted new regulations for marriages. According to these, no man in the empire will henceforth be permitted to marry before arriving at the age of twenty. Women, however, are to be privileged to marry at eighteen.

Factory Legislation in France.—Fresh powers for enforcing an old Act of 1848, regulating the duration of the day's work in factories, has been obtained from the Chamber of Deputies by the French Government. This law, which fixed the maximum length of a day's work at twelve hours, had almost fallen into desuetude. The inspectors under the Act will be largely reinforced, and the condition of working-children is to receive special attention.

Dr. Abrath, Sunderland.—The action brought by this gentleman against the North-Eastern Railway Company for malicious prosecution, in which £10,000 damages was claimed, was heard last week at the Durham Assizes, and has resulted in a verdict for the defendants. Dr. Abrath has announced since the conclusion of this action that he will shortly deliver a demonstrative lecture in Sunderland and elsewhere in the presence of the injured man McMann. The proceeds of the lecture will be devoted to the support of McMann, and to defraying the costs of the trials. The twelve special jurymen are specially invited, and a like invitation is given to medical men and solicitors interested in the getting-up of genuine railway-accident cases.

Veracx.—Yes; statistics show that the fluctuations in the rate of mortality are subject to this law; that the excess in the mortality from zymotic diseases raises the mortality much above the average, while the reduction in the mortality never falls in a healthy year to an equal extent.

Patent Medicines.—A Scotch contemporary on this question says: "A highly important topic was quietly shelved in Parliament recently, without receiving anything like the amount of attention it deserved. We allude to the discussion on 'patent medicines,' initiated by Mr. Warton, and taken part in by Dr. Farquharson and Mr. Hibbert. Not merely from a medical point of view, but in its social and legal aspects as well, the topic is one which, in our opinion, has important bearings on the community at large. It is a notorious fact of our age, that 'patent,' or, in other words, secret remedies and nostrums, are very largely bought. There probably never was an age in which people were more given to pour drugs, of which they know little, into their bodies, of which they know less. Unless we are to assume as true the amazing proposition that unqualified persons are better judges of what is necessary to cure diseases than qualified physicians, it must be admitted that the free sale of quack medicines presents a serious side for reflection. The remedy, if it exist at all, for the anomalies of medicine-swallowing and of the dealing in quack nostrums, rests not with druggists or manufacturers, but with the people themselves. So long as people remain ignorant of the most rudimentary principles of physiology and the laws of health, so long will they be the victims of the quack and impostor."

A Sad Fatality.—Dr. Crossby, the medical officer of the Sunderland Workhouse, was found dead in his bed on the morning of the 17th inst. He had been accustomed to take doses of morphia, and the coroner's jury returned a verdict of "Death from an overdose of morphia."

Statistician.—The year 1879 was in many respects remarkable in a statistical point of view. According to official reports, with one exception it was the coldest year of the century; its marriage-rate was the lowest on record; its birth-rate the lowest but one since 1831, having been equalled only twice—in 1862 and 1871; and its death-rate the lowest but one since 1856. Never before was the death-rate from accident or from homicide so low; nor, on the other hand, was the number of persons who committed suicide ever before so high.

Dietetic.—It has been found that the only way of interesting women of the working-classes in cookery is by teaching the subject in the elementary schools. The Education Department, recognising the importance of the object, has lately doubled the payment from 2s. to 4s. for every child who passed an examination in cookery.

COMMUNICATIONS have been received from—

Mrs. Isabel Thorne, London; Dr. Gillespie, London; Dr. I. Owen, London; Dr. H. V. Carter, Bombay; Mr. James Wyld, London; Mr. G. H. Stange, Wolverhampton; The Registrar of the Apothecaries' Hall, London; The Registrar of the Royal College of Physicians, London; Mr. T. Holmes, London; Dr. A. F. Richmond, Greenock; Dr. E. Long-Fox, Clifton; Dr. E. F. Willoughby, London; Dr. Duigan, London; Mr. C. H. W. Oscar, Ventnor; Dr. Lediard, Carlisle; Dr. Sowers, Washington, U.S.A.; Dr. Roberts, London; Dr. W. Black, London; Dr. Edward Sargeant, Bolton; Mr. Langton, London; The Local Government Board, London; Mr. J. Chatto, London; Mr. Baxter, London; Dr. F. A. Purcell, London; Dr. J. W. Moore, Dublin.

BOOKS, ETC., RECEIVED—

The London, Brighton, and South Coast Railway Company, by James P. Lythgoe—Report on the Sanitary Condition of the Hackney District for the Year 1881—Report on the Buxton Urban District for the Year 1881—An Atlas of Illustrations of Pathology: fasc. iv., Diseases of the Liver (The New Sydenham Society)—Lock Hospitals, etc., by Frederick W. Lowndes, M.R.C.S.—Report of the Asylum for Idiots, Earlswood, Redhill, Surrey—Report of the Borough of Huddersfield for 1881—Report on the Town of Ventnor for 1881—Eastbourne, by George Moseley, F.R.C.S.—Annual Announcement of the Trinity Medical School—On Genital Renovation by Kolpo-tenotomy and Kolpoecpectasis in Urinary and Fecal Fistulæ, by Nathan Bozeman, M.D.—Medical Opinion Justifying the Treatment of the late President Garfield—Plastic Splints in Surgery, by S. N. Nelson, A.B., M.D.—États Constitutionnels et Traumatisme, par le Dr. A. Verneuil—Remarks on Climate in Relation to Organic Nature, by Surgeon-General C. A. Gordon, M.D., C.B.—Lectures in Surgery, by James Spence, F.R.S.E.—Précis of the Proceedings of the North-Western Association of Medical Officers of Health at a Meeting in Manchester, April 13, 1882—The Asylum Superintendent's on the Needs of the Insane, with Statistics of Insanity in the United States, by C. L. Dana, A.M., M.D.—Annual Report of the Metropolitan Imbecile Asylum, Caterham, Surrey—Speech of Sir Jervoise Clarke Jervoise, Bart., at the Midsummer Quarter Sessions, Winchester—Facts and Considerations relating to the Practice of Scientific Experiments on Living Animals.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Gazzetta degli Ospitali—Weekblad, etc.—Revista de Medicina—National Board of Health Bulletin, Washington—Centralblatt für die Medicinischen Wissenschaften—Louisville Medical News—Light—Sunday at Home—Girl's Own Paper—Friendly Greetings—Journal de Saxon—Leisure Hour—Revue d'Hygiène—Boy's Own Paper—Ciencias Médicas—Oracle—Chemist and Druggist—Boston Home Journal—Liverpool Medico-Chirurgical Journal.

APPOINTMENTS FOR THE WEEK.

July 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

31. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

August 1. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

2. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

3. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

4. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ORIGINAL LECTURES.

LECTURE ON HYPERTROPHY OF THE HEART.

By BRYAN CHARLES WALLER, M.D.,
Lecturer on Pathology in the School of Medicine, Edinburgh.

GENTLEMEN,—The condition of hypertrophy of the heart-muscle or myocardium is one the existence of which has been long known to the profession. Senac makes mention of alterations in the thickness of the heart-walls with relation to the size of the cavities, and alludes to that bulging of the thoracic wall which often accompanies marked hypertrophy. Albertini, who was born in the latter half of the seventeenth century, noticed that the left ventricle was especially prone to hypertrophy, and the right to dilatation: while Lancisi ("De Motu Cordis et Aneurismatibus," Rome, 1728) was the first to appreciate the relation of cause and effect which exists between conditions of obstructed circulation and many forms of cardiac hypertrophy. The mechanical conditions of obstructive hypertrophy were further described in additional detail by Corvisart; while Laennec and Bertin first made the important distinction between hypertrophy and dilatation. The various causes of hypertrophy were subsequently discussed by many writers, among whom we may mention Williams, Burns, and Hope; Bizot and Reid by systematic measurements attempted to furnish reliable standards of comparison; the same line of investigation was pursued by Ranking and Peacock; while Myers, Thurn, and Seitz have recently bestowed much attention on hypertrophy of independent origin. At the present time our knowledge of hypertrophy, in its clinical and pathological aspects, may be pronounced fairly complete; the only exception to this statement being in the etiology of certain obscure idiopathic forms.

Hypertrophy of the myocardium consists essentially in a true increase in the volume of the muscular walls of the heart-cavities. In the Partial form, this increase affects only one cavity or one division of the organ; but if the hypertrophy be General, the increase is simultaneous over the whole heart. Hypertrophy of both ventricles has, however, been sometimes dignified by the name of General Hypertrophy.

Histologically, True Hypertrophy, with which alone we shall deal in the course of the present lecture, involves actual augmentation of muscular tissue, attended with increased contractile function. It is, therefore, a simple *quantitative* change, the composition of the textural elements remaining unaltered. Though a pathological change, in that it involves an appreciable deviation from the normal standard, it is not by any means of necessity an unfavourable condition. On the contrary, it is traceable, etiologically, in the majority of instances, to a secondary attempt at compensation by augmentation of the *vis a tergo*, for some primary lesion involving obstruction to the circulation. It is thus simply a reparative effort of nature, tending to restore a previously disturbed balance of circulatory forces. Perhaps a specific instance may render this plainer. In conditions of aortic stenosis it is obvious that a greater total amount of contractile force must be exercised by the left ventricle, if the ordinary amount of blood is still to be supplied to the systemic circulation. Accordingly, if the general nutritive conditions of the economy be fairly satisfactory, the ventricle will prove equal to the emergency, and acquire the necessary increase in contractile power by a process of gradual hypertrophy. Such hypertrophies are by no means confined to the heart. Examples of hypertrophy from constant and powerful effort are to be seen in the familiar instances of the blacksmith's powerful arm, and the well-developed calves of ballet-dancers and mountaineers. The increased demand for energy results in an increased supply, and the embarrassed organ is thus enabled, as it were, to meet it liabilities. In a word, one of the principal causes of cardiac hypertrophy is Overwork.

With respect to the ultimate tissue elements, a hypertrophy may be either Simple or Numerical. In the former the size of the original elements is increased, their number remaining constant; in the latter, both size and number are alike augmented. There is much difference of opinion as to which of these forms is responsible for the condition now under discussion, for the problem is surrounded by many difficulties. The muscular fibres vary in size, nor can we in any way accurately compute their normal number in any given area. Foerster considers that the primitive fasciculi are increased in volume; and Hepp (also (Diss., Zürich, 1853) is of the same opinion. This latter observer states the normal thickness of the primitive fibres at 0·007 millimetres, while he found them measure as much as 0·03 millimetres in a hypertrophied left ventricle. In the hypertrophied fibres of the left ventricle of a drunkard, Friedreich found the mean of ten measurements of the thickness of the fibres to be 0·025 millimetres. To a certain extent these conclusions are corroborated by Rokitansky and Bamberger. Rindfleisch, on the contrary, believes that the muscular fibres undergo multiplication by a kind of splitting process. If we refer to the normal histology of the myocardium we shall see that the muscular fibres divide and branch, forming a sort of network, composed of thicker strands, giving off a number of thinner ones. If we suppose that at the point where a muscular fibre divides, it further cleaves downwards from the point of bifurcation, we can easily conceive how a numerical multiplication may be thus effected. This view receives some support from the fact that small longitudinal slits and fissures may be occasionally seen extending downwards from the bifurcation, as if the fibre were about to split further. Rindfleisch believes that this process of cleavage is aided by the lateral force exerted during contraction of the side-branch, which would tend to further the downward cleavage, so that two separate smaller fibres would presently be produced in place of the original branched one. Each of these fibres might then grow to the size of their parent, and, in their turn, again undergo bifurcation and cleavage. This view is rendered probable by the absence of apparent increase in the diameter of the fibres of hypertrophied hearts, which is affirmed by many observers, and corroborated by the results of my own experience. For though I have examined many specimens under the microscope, I have never seen a muscular fibre the dimensions of which were exaggerated beyond the possibility of reasonable question. Rindfleisch also found that some of the muscle-cells contained two or more nuclei, instead of a single one. This, according to Weissmann (*Reichardt's Archiv*, 1861), is indicative of a tendency to split in the long axis. Some experimental observations on hypertrophy of the frog's heart, induced by partial ligature of the aorta, which were performed by Zielonko (*Virchow's Archiv*, vol. lxii., Bd. 1), showed that the increase of muscular tissue was apparently due, not to enlargement of all the cells, but to a growth and multiplication of free nuclei, which afterwards formed new fibre-cells. Zielonko's observations are further corroborated by Zehetmayer. For my own part, I am inclined to agree with Rindfleisch, but the whole question is very far from being definitely settled.

In addition to the enlargement or multiplication of the muscular fibre-cells, R. Lee ("Memoirs on the Ganglia of the Nerves of the Heart") and Cloetta (*Virch. Arch.*, vol. v.) believe that they have also discovered a thickening of the nerves. Whether this increase, if it exists, be due to a true hypertrophy of nerve-substance, or merely to a thickening of the connective-tissue sheath, I cannot pretend to determine, for though I have looked for it with some care, I have never succeeded in meeting with an example.

Pure hypertrophy, as we have remarked, is a *quantitative* change only. But certain fatty and pigmentary alterations in the fibre-cells are comparatively common as concurrent conditions, though they form no part of the essential process. They usually occur subsequently to the development of the hypertrophy, the effects of which they tend to antagonise. This is more especially the case with regard to that fatty degeneration of the fibre-cells, so prone to supervene after long-standing hypertrophy. Thus, patients who have at first exhibited symptoms of hypertrophy with increase of cardiac function, may presently present a diametrically opposite train of symptoms, with indications of marked circulatory weakness.

For descriptive purposes, it is convenient to divide all hypertrophies of hollow viscera, like the heart, into three varieties, depending upon the relation existing between the diameter of the walls and the size of the contained cavities. These three varieties are distinguished by the names—Simple, Excentric, and Concentric Hypertrophy.

In Simple Hypertrophy, the size of the cavity remains unaltered, while the thickness of the wall is increased. Marked examples of this form are not common in the heart, and appear to be almost exclusively confined to the left side. All the slighter degrees of hypertrophy without primary dilatation may nevertheless be included under this head, though it must be borne in mind that slight hypertrophy, especially if general or symmetrical, is not easy to recognise, on account of the variations which always exist within certain limits in the normal organ. If the hypertrophy is only partial, the resulting alteration in general contour renders the problem somewhat easier; but minor degrees of atrophy and hypertrophy are always puzzling, and should only be considered as such after a careful estimate of all the peculiarities of each individual case. Thus, age, sex, race, physical development, and the conditions of the circulation during life, should all be taken into account before pronouncing a definite opinion. Fortunately, however, the effects of slight hypertrophies are almost as insignificant as their cause.

Of far greater frequency and importance is the second or Excentric variety, which consists in dilatation of the cavities with thickening of their walls. The hypertrophy of the walls may be primary, and the dilatation of the cavity secondary, or *vice versâ*. The entire heart may be involved, or the process may be restricted to one side or one cavity. When the left ventricle is much affected it often happens that the septum is so pushed towards the right ventricle as to cause a corresponding diminution in the capacity of this cavity. Excentrically hypertrophied hearts are sometimes of enormous size, and have been known to weigh several pounds.

The term Concentric Hypertrophy is used to designate a condition of thickening of the walls, with diminution in the size of the cavity. It is a disputed point whether a true concentric hypertrophy is ever met with in the heart, or whether the appearances so termed are not rather to be relegated to the category of post-mortem phenomena. On the one hand, Skoda, Bamberger, and Rokitansky maintain its existence as a genuine pathological change, although allowing the extreme rarity of undoubted specimens. In certain patients a small slowly-filling pulse has been observed during life, with no aortic stenosis or other valvular lesion, sufficient to account for the state of the circulation: the subsequent post-mortem examination has then revealed a diminution in the cavity of the left ventricle, with thickening of its walls, and it has been sought to establish a relation of cause and effect between these two conditions. The diminished force of the circulation is accounted for either on the ground of degenerative changes in the hypertrophied walls, or on the somewhat fanciful plea that their very thickness acts as an obstacle to their contraction. On the other hand, Cruveilhier and Budd maintain that the not infrequent appearance of concentric hypertrophy in the left ventricle is not pathological, but cadaveric. They attribute it to tonic contraction of the heart-muscle at the moment of death, in which position it becomes fixed by rigor mortis. These authorities have further shown that with the disappearance of the rigor mortis the walls and cavities resume their relative dimensions; and that even during the period of death-stiffening the normal appearance may be immediately and permanently restored by artificial dilatation with the fingers. My own experience fully corroborates the views of the two latter observers; for though I am prepared to admit the possibility of a concentric hypertrophy in the heart, as well as in other hollow organs, I have never met with a single instance in all the hundreds of hearts which I have from time to time examined. True, I have often encountered it as a cadaveric phenomenon; but in these instances I have never experienced any difficulty in abundantly satisfying myself as to its real nature. I should accordingly advise you provisionally, and in default of further evidence, to include concentric hypertrophy of the heart in the list of post-mortem changes.

Before discussing the more important causes of hypertrophy, I would again remind you of its rarity as a primary condition. But though rare, and often not a little puzzling from an etiological point of view, primary or idiopathic hypertrophy does certainly exist. The *cor boviuum*, or heart affected with primary general excentric hypertrophy, may be seen in almost any large museum of pathological specimens. In the second edition of Jones and Sieveking's Pathology, edited by Payne, mention is made (page 339) of a heart preserved in the Museum of St. George's Hospital, which, when removed from the body, weighed five pounds. The left ventricle exhibited enormous excentric hypertrophy, but beyond this there was an entire absence of all morbid appearances.

Another case is recorded by Bruzelius and Blix (*Hygiea*, 1870). The patient was a lad of eighteen, who had suffered from repeated and prolonged attacks of palpitation. The consumption of excessive quantities of alcohol, coffee, and tobacco are believed to be occasional causes, as also long-continued functional excitement of nervous origin. The etiology of these hypertrophies is obscure; but it is quite conceivable that prolonged toxic or emotional excitement, acting upon a delicate and irritable nervous organisation, might so affect the cardio-motor centre as to lead to continued acceleration of the heart's action, with ultimate hypertrophy from excess of functional activity. All emotions and passions, such as anger, fear, grief, love, sexual excitement, religious anxiety, etc., exercise an influence on the heart through the medium of the nervous system—so much so, that, in popular parlance, they are for the most part said to emanate primarily from that organ. If, then, the cardiac stimulation be repeated and excessive, as might easily happen in persons of great nervous excitability, upon whom ordinary causes act with extraordinary force, it is possible that hypertrophy might develope after a time. Given a ticklish nervous system, keeping the heart habitually working at high pressure, and it seems reasonable to conclude that the alternative of hypertrophy or breakdown must presently ensue. As you may suppose, an organisation of this sort is by no means an unmitigated blessing to its possessor, even though conjoined, as it often is, with remarkable intellectual powers of an imaginative or contemplative order. To such persons, a tranquil life and an unburdened mind are little short of necessary conditions of existence, for if subjected to prolonged mental disturbance, they become liable to a train of functional and organic disorders, among which we must doubtless include the hypertrophy of the heart which we are now discussing. In estimating the organic effects producible by functional nervous disturbance, it cannot be too clearly understood that the mind and body of man are not separate and independent entities, but essentially parts of one and the same organism; that they act and react upon one another; and that unfavourable conditions of the one cannot long persist without in some way and to some extent affecting the other also.

Those hypertrophies of the heart, which are sometimes met with in pregnant women (Larcher, *Arch. Gén. de Méd.*, 1859), and after severe mountain climbing, or the fatigues of a prolonged campaign (Myers, Moinet, Thurn, and Fraentzel), are not truly idiopathic, since they one and all depend upon primary circulatory disturbance. The same remarks apply to the hypertrophy of epilepsy.

Far more common than the primary hypertrophies are those which are secondary to some antecedent obstruction or hindrance to the circulation of the blood, or the motions of the heart. Mechanical hindrances to the circulation arise from such causes as stenosed valves, rigid and atheromatous arteries, aneurismal tumours, and dilated heart-cavities; while among those involving interference with the motions of the heart may be mentioned adhesions of the pericardium, and certain malpositions of the heart itself. Both groups of conditions, however, imply extra demands on the systolic force, so that both may be fairly said to have their origin in overwork, and to be of a compensatory nature.

When an obstacle to the blood-flow exists, such, for instance, as a contracted aortic orifice, we may fairly suppose that the first occurrence in the train of events which subsequently issues in hypertrophy is the transmission of a mandate from the cardio-motor centre for increased systolic frequency and force. But without hypertrophy the heart would quickly prove unequal to this additional strain; and it is accordingly at this juncture that a hypertrophic increase of the muscle-cells becomes absolutely necessary if the hitherto temporary accommodation is to be permanently

maintained. Fortunately, the extra demand is capable of producing a responsive supply. If the general nutritive conditions of the tissues are at all favourable, the myocardial elements undergo enlargement or multiplication, or both, and the heart is thus endowed with increased driving power, and enabled to overcome the obstruction with more or less completeness, and so effect a readjustment in the disturbed balance of the circulatory forces.

Obstructions to the blood-flow may be either *intra-cardiac* as in valvular disease, or *extra-cardiac* as in the case of an aneurism. We will first direct our attention to the mechanism and effects of those which are intra-cardiac, and consider a little more fully the compensatory influence which a subsequent hypertrophy exercises upon them. Let us again suppose a case of aortic stenosis. Before the development of hypertrophy there will be anæmia in front of the stenosed orifice, that is to say, in the aorta and all the arterial portions of the general systemic circulation. But in addition to this, there will also be mechanical engorgement behind the obstructed orifice. Thus, *firstly* the left ventricle and auricle, *secondly* the pulmonary veins, capillaries, and arteries, *thirdly* the right ventricle and auricle, and *fourthly* the venæ cavæ and their branches, will be engorged with blood which cannot make its way fast enough through the partially closed aortic opening. The blood will stagnate in the lungs, and will no longer undergo thorough aëration. But if the left ventricle now hypertrophies, all these grave conditions will become modified for the better. This cavity will then work double tides; the aortic anæmia will be corrected, and the block behind will be relieved; the blood will no longer stagnate in the lungs; the right ventricle will again possess an unembarrassed outflow; and the engorgement of the great veins will subside.

A second class of intra-cardiac obstructions which are relieved and modified by secondary hypertrophy are those caused by dilatation of a heart-cavity. A cavity thus dilated will be obviously burdened with a greater fluid dead-weight. This state of matters will affect the circulation in much the same way as stenosis of a valvular orifice. The dilated cavity will contain more blood, while its propulsive power is at the same time diminished; and arterial anæmia in front, with mechanical engorgement behind, will again result. Hypertrophy of the dilated cavity will render it capable of propelling the additional dead-weight of its fluid contents, and thus the circulatory conditions will again approach their normal standard. Many such dilatations are due in the first place to regurgitant valvular disease. Others result from various inflammatory and degenerative lesions of the walls themselves. When the walls are degenerated, the conditions are unfavourable to the development of compensatory hypertrophy, but in dilatation from other causes it is comparatively common. When speaking of Dilatation in the next lecture we shall treat more particularly of the manner in which it is determined by regurgitant valvular lesion; but as the mechanism of its production is by no means self-evident, a word or two of explanation may not be unwelcome. In a case of incompetence of the mitral valve, the blood contained in the left ventricle is partly forced backwards into the left auricle as well as forwards into the aorta. The auricle thus becomes distended; and when the ventricular systole is over, the recoil of the over-distended walls of the auricle forces the regurgitated blood back again into the ventricle at the moment of its diastole, when its muscular walls are not prepared to receive the shock. Thus at every ventricular systole a portion of the contents of the left ventricle regurgitates into the auricle, and at every ventricular diastole is forcibly returned by the auricle into the ventricle. This continual series of diastolic impacts presently causes dilatation of the ventricle, which is never completely empty during diastole, and is further exposed to a rush of blood when its muscular fibres are in a passive condition. A subsequent hypertrophy acts beneficially in enabling the ventricular walls to sustain the diastolic shock, and also in increasing the amount of blood supplied to the aorta, which was previously lessened by just so much as was permitted by the mitral incompetence to regurgitate into the auricle.

Aortic insufficiency acts in the same way, but to a still greater extent. The imperfect closure of the semilunar valves allows the elastic recoil of the aorta to force a quantity of blood backwards into the ventricle during diastole. Dilatation and subsequent hypertrophy then follow as in the case of a mitral insufficiency. The hypertrophy is beneficial in that it enables the walls to withstand the diastolic shock, and increases the total supply of blood to the systemic arteries, which was previously lessened at every closure of the semilunar valves by precisely the amount which regurgitated from the aorta into the ventricle.

I would have you observe that in obstructive valvular lesions, hypertrophy usually occurs directly, and without intermediate dilatation; while in the regurgitant conditions it almost always follows on a previously developed dilatation. This difference is explicable on the ground that the primary dilatation is principally due to forcible entrance of blood during diastole, while the primary hypertrophy is merely caused by the necessity for overcoming the direct obstruction of stenosis.

Very remarkable examples of Excentric Hypertrophy of the left ventricle are furnished by those cases where aortic stenosis and insufficiency are co-existent. The insufficiency permits diastolic regurgitation, with consequent dilatation, while the stenosis prevents complete emptying of the ventricle during systole, until a perfect hypertrophic compensation is established. Thus, before compensation is complete, the ventricle is never entirely empty either during systole or diastole. The resulting enlargement is often enormous. Such a heart is that which I now show you. The aortic orifice is stenosed, and the valves are incompetent. The left ventricle is greatly hypertrophied, and the heart in its recent state weighed one pound eleven ounces.

The conclusions arrived at in the foregoing descriptions of the sequence of events in cases of hypertrophy following on primary dilatation have been carefully followed out and fully corroborated by the valuable clinical observations of Bamberger. Though we have dealt only with these dilatations and hypertrophies as affecting the left side of the heart, the results under analogous conditions are practically identical upon the right side, though hypertrophy is not so common or complete, and the effects of dilatation less fully compensated.

In cases of Chronic Circumscribed Aneurism of the walls of a heart-cavity, there is usually more or less hypertrophy of those portions of the muscular parietes which still remain undilated. Here is a remarkable specimen in which the tip of the left ventricle is completely converted into an aneurism as large as a billiard-ball, which is partly filled by a laminated clot of a flattened ovoid shape. You will easily see how thick the walls are above the situation of the aneurism and towards the base of the ventricle. This is another example of compensatory hypertrophy, and arises from an attempt on the part of the undilated portions of the ventricle to accomplish not only their own share of the work of propulsion, but also that of the parts which have become converted into the fibrous, inert, and non-contractile walls of the aneurismal tumour.

(To be continued.)

SULPHIDE OF CALCIUM AS AN ANTI-SUPPURATIVE.—Dr. Andrew Smith reported to the Medical Society of the State of New York (*New York Medical Journal*, June) the results of an inquiry he had been making of members of the profession by means of circulars as to the results they had derived from the use of calcium as an anti-suppurative. Having received fifty-one replies, he comes to the conclusion, as far as so limited a number permitted:—"We are warranted in concluding that in many cases of suppurative affections, ranging from the small pustules of acne to extensive suppurating surfaces, an appreciable and often a very marked benefit is derived from the use of the calcium sulphide, suppuration which would otherwise take place being averted, or the quantity and duration of an existing discharge being lessened. At the same time its action is not uniform; and in many favourable cases it will fail entirely. The drug is somewhat prone to irritate the stomach, and this circumstance affords an indication for small doses frequently repeated, instead of larger ones at longer intervals. One-tenth of a grain every two hours in acute cases will generally secure the full therapeutical action of the drug; but larger doses may sometimes be required, and some patients will bear well a grain three or four times a day. Even in small doses the sulphide will occasionally produce headache, and the patient is usually more or less annoyed by eructations of sulphuretted hydrogen."

ORIGINAL COMMUNICATIONS.

SOME OBSERVATIONS ON CONSUMPTION.

By WILLIAM H. PEARSE, M.D. Edin.,
Senior Physician to the Plymouth Public Dispensary.

(*Continued from page* 127.)

Bone System.—The profound corelation of the final phthisis of the lungs to anatomical type is seen in deeper parts than the skin system, to which latter the teeth, nails, and hair belong. I continually am being struck with the phenomenon that in the phthisical, the upper maxillary and nasal bones have an exaggerated tendency to one or other side. Of actual cases of phthisis, my notes give twenty-four such in which these bones tended to the left, and thirty-four in which they tended to the right. Where this excess of obliquity was to the left, the left lung was diseased in seventeen cases, the right lung in seven. Where the obliquity was to the right, the right lung was diseased in sixteen cases, the left lung in eighteen. In those in whom both lungs were diseased, four had the obliquity to the right side, and one to the left side. Of those "delicate"—of phthisical type, but whose lungs at the date of observation were not actually diseased—forty-six had the excess of obliquity to the right, thirty-two to the left—obviously too small a number of cases from which to hope to trace an indication of a law or order in the series of evolution of the anatomical, and diseased phenomena.

I have often noticed, amongst the poorer classes who are phthisical, a flattening of the face across the root of the ose. One tall young woman, with infraclavicular regions much sunken, and who has been under observation during two years, but in whose lungs no disease can be traced, has a prognothic face, with teeth of negro type.

Peculiarities connected with the terminal cartilages of the nose are associated with phthisis. Sometimes the end of the nose is lumpy in proportion to the organ; in others, abnormally pointed; in others the terminal cartilages are large and unsymmetrical. I have on many occasions been able to predicate phthisis from the unsymmetrical and rather large terminal cartilages of the nose.

Often in the phthisical the head and neck are not well set up, but the neck leaning somewhat forward, is at the same time sunk down, as it were, between the shoulders.

Corelation exists between the hands and phthisis: whilst some have exquisitely fine hands, a large proportion have unduly large hands. One may often predicate phthisis from the large and cold hands.

The body in some cases will develope into that of a fine young man or woman; the thorax remaining that of a child. The fatal phthisis of the lungs may not come on until twenty-five years of age, etc.; in other words, the thoracic bony segments (nerve segments, in fact, also) have not evolved consentaneous with, and in just co-ordination with, the other segments of the body. The nerve, or yet deeper evolutionary force, has been deficient or deflected, being sufficient only for the growth of lung-tissue up to but an early age. In one girl already referred to, under my care during three years, with extensive phthisis, and who died at fourteen years of age, the child's body during this period ceased to grow. She often asked me to "give her something to make her grow." We cannot doubt but that the cessation of growth of the body generally, equally with the failure of growth of healthy lung-structure, were absolutely natural phenomena; and the conditions of the body generally, and of the lungs, were profoundly of one series.

Before research has traced the almost infinitely remote and delicate differentiation in the correlation of vital and formative energy, in the nascent plasma of organic being,—on the relations of which healthy growth and its natural deviations or diseases depend,—it may be an object worthy of search for pathologists to seek in the spinal cord and centres, delicate yet potential changes of structure and composition, having corelation to the altered rates of evolution of the lung-tissue and the body generally.

In seeking to discover the order of the series of phenomena whose final stage is phthisis, it is just to observe and consider any corelated phenomena, be they anatomical or functional. In the amazingly complex and vast series of the organic evolution, no associated fact should be disregarded; no one can predicate from which side of the study the right method of prophylaxis shall open.

By a just estimate of physical type we may often be able to put patients on a right mode of life, prophylactic of their future, but as yet latent, tendencies.

Form of Phthisis.—The facts already stated under the heads of Functional Symptoms, Food, and Anatomical Corelation, are approaches towards the Form of Phthisis: it may, however, be useful to note some other phenomena; but we are thus lead into the region of theory. There is naturally amongst us a sound conservative feeling against theory; it must, however, not be forgotten that every general statement, be it of the narrowest kind or of the broadest, involves theory. Herschel somewhere says to the effect that those who make it a matter of boast that they are not theoretical men, always, not the less, have theories, but that their theories are narrow and wrong. He says ("Prel. Dis.," par. 216), "to lay any great stress on hypotheses . . . . except inasmuch as they serve as a scaffold for the erection of general laws, is to quite mistake the scaffold for the pile." "Regarded in this light, hypotheses have often an eminent use; and a facility in framing them, if attended with an equal facility in laying them aside when they have served their turn, is one of the most valuable qualities a philosopher can possess." There can be but little doubt that but for the hypotheses—ideas—of Goethe on the metamorphosis of the leaf, and of F. Schlegel on the relationship of the Indo-European languages, the European intellect would not have been in a state capable of receiving the great generalisations of Lyell, Darwin, Grove, Spencer, etc., and we should have remained immersed in the errors of the "catastrophetic" method. We now rejoice in the method of Goethe, who says of Nature—

> "She acts in calm and regulated course,
> Knows nothing of this accidental force;
> E'en in her works of most sublimity,
> As in the least, no violence knows she."

But this return to True Method reaches Medicine later than other domains of the organic world. Not the less have we ceased to view diseases as entities, but rather view them as natural phenomena and deviations, or residual phenomena, having absolute relation, in law, and order, and series, to all physical and vito-physical existences; in other words, disease has its place in a natural orderly series. Thus, phthisis is a purely natural phenomenon, having as definite and absolutely exact physical and vito-physical correlations as bodies have in the elementary sciences of mechanics and astronomy. Seeing that mathematicians and physicists have not yet discovered the rates or laws (so-called) of action and force, we cannot be surprised that physicians have not yet been able to state an hypothesis of the rate of the more complex organic evolution; that a definite order *must* exist in the organic evolution, and in its apparent deviations or perturbations (diseases), is an *à priori* truth. (a)

I proceed to enumerate some of the phenomena which presented amongst the cases as partially illustrating the Form of phthisis.

Slow Evolution of Phthisis.—One woman, aged forty-five, had lost one son and two daughters from phthisis; she remained well up to six months ago, but has now well-marked disease at the top of the left lung. The failure of growth of healthy lung-tissue in her case is a purely natural phenomenon, but the physical and vito-physical conditions which culminated in the phthisis were latent in her body's composition and corelations during her previous years. Another woman of forty-three, whose three brothers and sisters died of phthisis, has been fourteen years ailing. The very varied and complex series of symptoms included in the term "weakness" often exist through a long series of years. Thus the long period of quiescence during which the evolution or growth of healthy lung-tissue occurs, or, as it may be called, the period of equilibrium in the correlations of the forces involved in vital evolution, leads us to the hypothetical statement of the natural slow evolution of phthisis. The form of phthisis is also approached by those cases which follow, at very varying periods, those nearly allied perturbations of the system, known as the different fevers.

a) Mathematicians have begun to apply their "pure science" and analysis to chemical bodies—bodies which are in true "continuity" between the organic and inorganic (so-called. Professor Cayley (*Nature*, vol. xii., page 483; Report of British Association, Bristol, 1875), establishes "that theoretically for a body whose formula is $C_{13}H_{2n}$ there exist 799 isomeric bodies. It is worthy of remark that the mathematical theory agrees with experiments for the first five bodies, thus affording strong confirmation of the truth of the remainder."

We do not doubt but that phthisis has often evolved consequent or following small-pox, measles, "low fever." I have had patients who ascribed their phthisis to Cyprus fever, East and West Indian fevers; in one case from Cyprus the phthisis developed rapidly, whilst the liver and spleen remained greatly enlarged. Then, again, we can hardly doubt that phthisis evolves in some women consequent on bearing children.

We may fairly state an approximative hypothesis, viz., that a great variety of antecedent conditions—"shocks"; changes in the system's accustomed environment and states; depressing influences—are often the occasion for the natural evolution of, or passage of the system into, phthisis. What we have so long viewed as "specific" seems to subside. We have the acute phthisis now and then, but more common in other climates, such as Italy.

The profound relation of phthisis to animal type is seen in that, whilst the criminals in Dartmoor die as 2·6 per 1000 of phthisis, the lunatics in Exminster Asylum die as 20·96 per 1000, as compared with 2·47 for England and Wales.(b)

Thus, in seeking to understand the Form of phthisis, we are lead to view the lung-disease as a minor part of the entire phenomena. The full and true form will probably be found to embrace structural and molecular changes in the spinal and nerve centres, and in altered physical and vito-physical correlations.

Again, the attention is being continually arrested by the phenomenon that some cases of established phthisis will remain in the same condition for years even, whilst others are rapidly fatal. Are our methods of analysis never to reach the delicate, yet all-potential, differences of correlation in such cases, and on which differences, it is probable that life and death depend?

It appears to be an *à priori* necessity, that with such profoundly deficient innervation as is shown by the whole series of functional symptoms, and by the great variety of anatomical deviations, potential spinal corelations and departures from normal structure must exist.

Where can we seek the method which shall explain *how* it is that one lung is first most generally affected? As it is an *à priori* transcendental truth that the whole animal kingdom must be of one or allied order or series or rate, so we may expect help in seeing the efficient or second causes of this phenomenon, from the study of the order of the vital evolution in the earlier and simpler types of animals, and in the processes of the embryonic states.

We recognise also that phthisis is not a "specific" existence, but a deviation only, from the greater natural and prevailing order of healthy evolution.

If microscopic search should find bacteria, etc., generally present in advanced phthisis, such a fact can be but a minor part of the great form of consumption. To look to bacteria, etc., as a cause of consumption is "to seek the greater in the lesser worlds."

How is it that game will not take on the diseased rates which follow in many other instances the tsetse fly bite?(c) How are mules and donkeys also exempt from the same poison?(d) How are the aborigines of South Australia incapable of taking scarlet fever?(e) How is it that Algerian sheep do not take splenic fever? It appears to me that such instances have a great bearing on the Form of phthisis. Do what we like to individuals of certain physical types, and we shall fail to cause them to become phthisical; whilst all our experience has not yet taught us how to prevent the evolution of the tubercular type of cells in the lungs of individuals of certain other physical and mental types. We can hypothetically express it, that in the non-phthisical the correlations of matter and force are in conditions of such co-ordination that healthy growth or evolution is the necessary result, whilst in the phthisical the vital correlations of "energy" are, in certain segments, absent.

It does seem to me of great consequence that, however crude may be our hypotheses, yet that they shall be in some degree open and in contact with the immense realm of existences involved in organic being, and that we be not held bound by the enticing, but incommensurate, germ theory.

(*To be continued.*)

(b) *Journal of the Plymouth Institution*, 1876-77, pages 87-102.

(c) "The tsetse fly has no effect on game, but all tame animals are killed by it, with the exception of goats" (Dr. Benj. F. Bradshaw, in *Royal Geographical Magazine*, April, 1881, page 212).

(d) "Livingstone's Last Journals," vol i., page 34. London: John Murray. 1874.

(e) "The Native Tribes of South Australia," page 44. Adelaide: E. S. Wigg. 1879.

NOTE ON

THE USE OF THE ELASTIC LIGATURE IN OPENING UP SINUSES.

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A PATIENT presented himself with several sinuses in and about the soft palate on the right side, and in the neighbourhood of the tonsil, resulting from repeated abscesses of long duration. A scanty purulent discharge was always present, causing a disagreeable taste in the mouth in the morning. A considerable amount of cicatricial tissue was present near the right tonsil and about the soft palate. A probe searching behind the velum found its way into a sinus, and the point of it projected the tissues above the last molar tooth. I cut down upon the probe-point with a view to establish complete drainage through the incision, which, although very small, caused a lingering hæmorrhage, which was not checked without trouble. In order to find the course of the pus, which still appeared, I passed some fine elastic, tied to a thread upon an aneurism needle, through the track above mentioned, and tied it; in forty-eight hours the tissues were cut through, and a sinus laid open. No hæmorrhage and only bearable pain resulted. The effect was beneficial, but other sinuses appeared still, behind, in parts considerably altered by the old inflammatory action. I accordingly repeated the process, passing the ligature partly through a blind sinus, and bringing it out through healthy parts; and this was done altogether three times—always with this same result, that improvement appeared; and finally, after the entire soft palate had been cut through upon the right side, leaving the tonsil free, the palate retracted and arched upwards. The post-tonsillary pharyngeal space thoroughly exposed, the bottom of the mischief was reached. I do not offer any remarks upon the disease present, although it was of a somewhat unusual character, and had resisted all astringent brushings and powderings, but wish to record my opinion that in some cases, where sinuses and cul-de-sacs are situated in parts where the knife can be used with some hazard only, the elastic ligature will form a safe substitute.

The elastic employed was a fine elastic band such as are sold by stationers in boxes, but cut into as fine a thread as would hold without breaking. Tying a knot at the back of the throat will not be found to be a difficult matter. The idea of using elastic was suggested by the late Mr. Charles Maunder's little pamphlet upon the elastic ligature compared with the knife for anal fistula, in which he considers the latter has every advantage over the former in that region.

LARGE DOSE OF CHLORAL.—Dr. Madigan relates in the *Chicago Med. Record* a wonderful recovery from a large dose of chloral. A physician, addicted to liquor and chloral, obtained a post as assistant-physician in an insane asylum. During the absence of the other physicians a patient was seized with a violent attack of epileptic mania, when the doctor administered to him *an ounce* of chloral hydrate dissolved in water, the patient sinking into a deep slumber within five minutes. Suspicion being aroused, aid was summoned and the stomach-pump was applied, hypodermic injections of whisky and strychnia being also resorted to. It was evident, however, that the greater part of the narcotic had already been absorbed. The highly interesting part of the story is, that after a relatively natural slumber, lasting forty-eight hours, the patient recovered. Other than the prolonged slumber no untoward results occurred, and no extraordinary phenomena presented themselves until the third day, when a vivid scarlatiniform eruption, involving the whole body, made its appearance. The patient's convulsions were fewer in number after his recovery from this dose; but his buccal mucous membrane was for a long time markedly tender.—*Boston Med. Jour.*, July 6.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHEADLE CONVALESCENT HOSPITAL.

CASE OF EMPYEMA.

[Reported by Dr. Grant.]

Elizabeth J., aged ten, admitted June 14, 1882. Six years ago, after scarlet fever, had "bronchitis and inflammation," followed by "abscess in the chest." This appeared as a swelling over the sixth and seventh left ribs, and seems to have been incised as an ordinary superficial abscess. Subsequently the pus pointed and discharged itself in the second and third left intercostal spaces, close to the sternum. Discharge continued until two years ago, when (in Burton Infirmary) her chest was operated on, a portion of rib having been apparently excised, and a drainage-tube inserted. This opening, and the one first incised, subsequently healed up, but that over the præcordial region has continued to discharge up to the present time. There was cough with expectoration of "phlegm" at the commencement of the illness; but no history of purulent expectoration can be obtained.

On admission, patient is a girl of average height for her age, but extremely thin—weight only 3 st. 8 lbs. The distortion of the thorax and spinal column is plainly visible as she walks, which she does actively, and without any appearance of distress from dyspnœa. Notwithstanding this, the respirations, when she stands at rest, number thirty-two per minute. There is a slight "venous flush" on the cheeks; the ends of the fingers are typically clubbed. Temperature is normal.

On examining the chest, the left side is seen to be in a state of extreme contraction; between the two semi-circumferences (eight inches and eleven inches) there is the enormous difference of three inches, and the left shoulder is about two inches lower than the right. The sternum is directed obliquely downwards and to the right; the spinal column presents a sweeping curve to the left in the lower dorsal region. There is a deep cicatrix in the ninth intercostal space behind, a small scar in the first space in the nipple line, and two sinuses close to the sternum in the second and third spaces respectively. These discharge about two drachms of healthy-looking, not fœtid, pus daily. The left side of the thorax is absolutely dull throughout, and its extreme contraction would seem to imply almost total obliteration of the lung; but loud, almost tubular, sounds are to be heard over the greater part of it. Under the clavicle the auscultatory signs have a distinctly cavernous character. The right half of the chest shows the usual signs of compensatory emphysema. The heart has been effectually ousted from its normal position. Its impulse can be felt diffused over a space bounded by the right costal margin (where it barely enters the epigastrium) and the right nipple-line. The apex (?) beat is visible in the fifth right interspace, half an inch outside of the nipple. There is a systolic murmur, probably due to the displacement, and the second sound is strongly accentuated. Notwithstanding the prolonged suppuration, there is no sign of waxy disease. The girl, though very thin, is not anæmic; the liver is pushed down, but not enlarged; the urine is free from albumen.

CASE OF PNEUMONIC PHTHISIS.

John M., aged fifty-three, shoemaker, admitted to Cheadle Hospital, May 28, 1882, having been a month in Manchester Infirmary. Patient has always been a healthy man, but has been somewhat intemperate. About two months ago, after a sharp walk of eight miles, he sat for some time in the open air, and immediately afterwards was attacked with rigors, cough, and slight expectoration, with great weakness. There was on two occasions slight streaky hæmoptysis, and during the few weeks before his admission to the Infirmary he lost flesh rapidly. Cough, shortness of breath, expectoration, and weakness have also increased. There is no history of hectic sweats.

On admission, patient was found to be pallid and considerably emaciated. Height 5 ft. 4 in., weight 6 st. 11 lbs. He complains chiefly of great weakness; cough, chiefly at night and morning, with about two ounces daily of glairy mucous expectoration, and dyspnœa on exertion. Appetite is good; the tongue is red and fissured, with brownish fur; digestion good; bowels regular. Pulse 120, small and compressible; area of heart dulness slightly increased; first sound constantly reduplicated, second sound accentuated. Urinary functions normal; the urine is clear, acid, of specific gravity 1020, contains no sugar or albumen, throws down a mucous deposit only. Respirations number 32 per minute; there is dyspnœa on any slight exertion. Physical examination of the lungs yields the following results:—Right lung, anteriorly, normal; posteriorly, slight impairment of resonance over extreme base, with weak breathing, a few scattered sibili and crepitations, and diminished vocal resonance. Left lung expands imperfectly throughout, but especially so at the base. Anteriorly, there is good percussion resonance, but the breath-sounds are harsh and high-pitched, expiration is prolonged, there are some coarse crepitations, and slightly increased vocal resonance. Laterally, resonance in axillary region is good, in infra-axillary it is impaired, with weak breathing, coarse crepitations, and increased vocal resonance. Posteriorly, there is general impairment of percussion resonance, amounting to complete dulness in the lower third. In the upper part auscultation shows weak breathing, prolonged expiration, and a few crepitations; in the middle third, bronchial breathing, abundant coarse crepitations, and bronchophony. A little below the angle of the scapula, breath-sound is almost cavernous, and coarse bubbling râles and pectoriloquy (with "whispering pectoriloquy") are heard. Over the extreme base the breath-sounds become weaker, and vocal resonance is diminished.

The following is the present course of temperature:—June 28, evening 100·8°; 29th, morning 99·4°, evening 101·2°; 30th, morning 99·4°, evening 101·8°; July 1, morning 99°, evening 100·7°; 2nd, morning 98°, evening 101°; 3rd, morning 98·8°, evening 100·2°. Since admission to Cheadle, patient's condition has much improved; cough and expectoration are diminishing, and four pounds in weight have been gained in a week.

South London School of Pharmacy.—The following prizes have been awarded to the successful competitors at the school examinations held on July 4, 5, 7, and 8:—Medals—Senior Chemistry, C. Caldecott; Junior Chemistry, J. B. Tyson; Botany, Miss Mitten; Materia Medica, F. Ransome; Practical Dispensing and Pharmacy, C. L. Dillon. Certificates—Senior Chemistry, J. Bain; Junior Chemistry, F. Ransome; Botany, C. E. Harston; Materia Medica, C. E. Harston; Practical Dispensing and Pharmacy, T. B. Tyson. Certificates of merit were also awarded to Messrs. Dowdeswell, Dillon, Hornby, Schofield, Thomas, and Thistleton.

M. Pasteur's Inoculations in Prussia.—The Commission nominated some months since by the Prussian Government to verify the experiments of M. Pasteur concerning the immunity against *charbon* conferred on animals by the inoculation of an attenuated virus, has just published the minutes of its proceedings, and it results from these documents that M. Pasteur has issued victoriously from this new investigation. Two series of experiments were undertaken in two different localities near Berlin. M. Thuillier, M. Pasteur's well-known assistant, practised two "vaccinal" inoculations at an interval of fifteen days—April 5 and April 19. On May 6 all, whether they had been "vaccinated" or not, were inoculated with the virus of *charbon*. Of twenty-five "unvaccinated" sheep, twenty-four succumbed in a very short time, as did three of the "unvaccinated" cattle, three others surviving after having presented manifest signs of a diseased condition. On the other hand, all the animals that had been "vaccinated" supported the inoculation without their healthy state undergoing any disturbance. Of the twenty-five "vaccinated" sheep, three, aged less than a year, succumbed to the consequences of the "vaccinal" inoculations. The results obtained from the second series of experiments were just as conclusive. A question of the highest interest awaits determination, namely, the duration of the immunity conferred by these preventive inoculations. To a certain extent we shall not have to wait long for information on this point, for more than a year has elapsed since the performance of M. Pasteur's first inoculations in France.—*Gaz. Médicale*, July 29.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, AUGUST 5, 1882.

HEALTH-RISKS OF THE EXPEDITION TO EGYPT.

In estimating the chances of sickness among the troops that are soon to land in Egypt, we have to keep in mind the distinctive character of the Egyptian climate, and the season of the year. Our general information about the former is of a reassuring kind, but, as regards the season, late summer and autumn is the season of sickness. Egypt is a hot country, but it is at the same time dry; immunity from dampness deprives the heat of Egypt of the chief dangers of sub-tropical heat. It should not be forgotten, however, that the coast territory of Lower Egypt, the present scene of operations, has a less dry atmosphere than Middle and Upper Egypt, and that the dewfall at such places as Damietta may be something considerable. The dewfall may indeed be taken as the most important index of the sanitary risks of a campaign. Hot days, cool nights, and watery vapour in the air, are the conditions under which intermittents are most apt to appear. Given extreme variations between day and night temperature, and the amount of malaria will depend greatly on whether the atmosphere is dry or charged with vapour. Fortunately in Egypt it is for the most part dry, and intermittents are by no means common. Compared with Sardinia or Cyprus, where the conditions as regards moisture are entirely different, the greater part of Egypt is practically non-malarious. An excellent observer, Griesinger, who resided several years in Egypt in charge of the large hospital at Cairo, although he met with an outbreak of "bilious typhoid" or relapsing fever at Damietta, encountered only about a dozen cases of intermittent, and these came chiefly from the Nile delta. But the Nile delta is the locality that is most likely to concern our troops, and it may be well to keep in mind that chill may there be followed by the usual effects of chill in tropical or sub-tropical countries. The War Office, having learned a lesson from the experience of the Cyprus occupation, has provided the expedition with the double Indian tents. Nothing in all the arrangements will contribute more to the comfort and health of the troops than this provision of stout tents. It is remarked by H. Dewar, who wrote a short account of the medical history of our last campaign in Egypt (1801), that the moderate amount of sickness that prevailed might have been still further reduced but for the thinness and smallness of the tents. "Had double tents been used," he says, "I believe there would have been but little sickness of any kind." The simple maxim to go upon for a country like Egypt is that it is safest to keep in the heat of the body. Hence the native turban and sash, and hence the benefit of wearing flannel, and especially a roll of flannel round the loins. Whatever theoretical views may be open to us of the pathology of malarial fevers, dysentery, and the like, the undoubted practical rule is by every means to prevent the undue abstraction of the body's heat, whether from the surface generally, or from particular parts such as the loins; and one of the best known precautions is the wearing of flannel so as to keep the perspiration from rapidly evaporating. If the dewfall should be appreciable, a prudent campaigner will avoid sleeping on the level of the ground, and will be careful to be well covered. Great care also has to be used in taking draughts of water to quench thirst, and the tempting and abundant water-melon should be taken of in great moderation. An Arab, when fatigued and thirsty, will avoid water altogether, or he will merely rinse out his mouth. The physician-in-chief of the French "Armée de l'Orient," in 1799-1801, thought the matter so important that he issued an order of the day, dated from before Acre, "le 30 Ventose an VII.," to the effect that it was of advantage to wash the hands and feet, as well as the face, frequently with water, and preferably with lukewarm water, to which a few drops of vinegar or cognac had been added; to avoid drinking much water when one was hot; and, before drinking at all, to rinse the mouth and to immerse the hands. The effects that follow a tropical or subtropical chill depend greatly on the previous amount of exposure to heat and especially to fatigue; and we may be sure that the sickness among the troops in Egypt will depend greatly upon the amount of marching and fighting, and upon the number of weeks or months during which they will be exposed to the climate.

The experiences of the Egyptian campaign of 1801 are chronicled for the French troops in the narratives and reports of Larrey and Desgenettes. The "citoyen Desgenettes" was physician-in-chief "de l'armée d'Angleterre," and he was transferred from that somewhat inactive position (in the neighbourhood of Boulogne) to take medical charge in Egypt. He was assisted by a small staff from the medical school of Montpellier, who furnished him with reports upon the ophthalmia, dysentery, and other ailments of the troops, and upon the sanitary condition of Cairo, Alexandria, Rosetta, Damietta, and other stations. The French medical experiences were more varied and extensive than those of the English, in proportion to their longer occupation, and included a good deal of ophthalmia, dysentery, diarrhœa, intermittents, and a certain amount of plague. Wounds were somewhat apt to be followed by tetanus, but Larrey observes that the healing process was exceptionally satisfactory. Ophthalmia was common in the winter months, but it also prevailed extensively in the hottest months of summer and autumn, at which time also diarrhœa and dysentery were most common. With the subsidence of the Nile in the end of November and in December, intermittents appeared as well as fevers of a contagious type. The English expedition were fortunate in the season of the year. They landed in March, and there was no sickness at first. About the middle of April diarrhœa appeared, sometimes obstinate and passing into dysentery, but seldom or never fatal. There were also a few instances of intermittent, chiefly in those

who had had ague before, and there were some rare cases of typhus. During the march to Cairo, ophthalmia was very prevalent, many men becoming unfit, and some losing their sight permanently. Diarrhœa increased, and by the middle of May dysentery was common. On the march back to Aboukir, after the surrender of Cairo, there was much sickness, chiefly slight fevers due to exercise in the heat of the sun; these cases got well after one or two purges and two or three days' exemption from fatigue. Bowel complaints were the chief kind of sickness after returning to the coast. The troops began to re-embark on September 10, 1801, Alexandria having surrendered. The most common kind of illness throughout the expedition was diarrhœa of the ordinary kind—frequent and liquid stools, sometimes with tormina and sickness. The diarrhœa, says Assistant-Surgeon Henry Dewar—the only medical chronicler of the expedition except Sir Charles M'Grigor, who wrote of the health of the Indian contingent—was often difficult to cure, owing to the scarcity of medicines, and to "the almost total want of coffee, tea, spices, and other articles of diet requisite for this description of patients." Medical stores must have been still more scarce among the French, for the vessel in which they were shipped at Toulon was captured by an English cruiser. There was small risk of bowel complaints spreading from filth and neglect of latrines. In the dry and hot air, excrementitious matters were hardened in a few minutes, and there were no effluvia.

The expedition of 1801 was certainly fortunate in completing its operations between March and September. It will be far on to the autumn season, proverbially the season of sickness in hot countries, before the expedition of this year is all landed on Egyptian soil. It is impossible also to forecast the "epidemic constitution" of the year. In the case of Cyprus, we happened to go there in a year of quite exceptional unhealthiness. The Army Medical Department appears to have made preparations adequate to the occasion. Eight field hospitals are said to be in preparation, and there will be nearly one hundred medical officers with the force from England. The steamship *Carthage*, 5100 tons registered, the largest and finest of the Peninsular and Oriental Company's fleet, has been chartered as a hospital-ship, and will afford to those who go on the sick-list the double luxury of sea-breezes and spacious quarters; and extensive hospital accommodation will be provided at Malta, and also at Cyprus. So far as one can say before the event, everything seems to have been done to provide against any of those disastrous outbreaks of disease which have often done more than reverses in arms to detract from the success and glory of a campaign.

SPONTANEOUS RUPTURE OF THE RECTUM.

A recent number of the *Revue de Chirurgie* contains an interesting article on the above rare occurrence, by M. E. Quénu. The author applies the title to cases of rupture, in consequence simply of muscular effort, of all the coats of an apparently healthy bowel. The first case of the kind was published by our own countryman, Sir B. Brodie. M. Quénu has collected six others, one of them having been observed by himself in the clinique of Professor Richet. The records are not all equally complete. In four out of five in which information on the point is given, there was old and well-marked prolapse of the rectum. The rupture was always produced during an effort—four times during defæcation, once during vomiting, once while lifting a heavy weight, and once in consequence of the patient's straining while the surgeon was endeavouring to reduce a prolapse of the rectum. Excepting for rectal prolapse, the patients were well prior to the rupture. The rupture in each case took place suddenly, at the moment of effort. The patient felt acute pain in the belly, malaise, and perceived a voluminous mass protrude from the anus. Sometimes the protrusion was preceded by hæmorrhage. The general condition quickly became worse, the face pale and Hippocratic, the voice feeble, the extremities cold; the intellect remained clear. Disappearance of the prolapse immediately followed the protrusion of intestine. The straining of the patient quickly caused the expulsion of more intestine, which formed a mass hanging between the thighs, and soon became congested and inflamed. When examination is made in such cases, the relaxed sphincter commonly offers no obstacle to digital exploration, and the pedicle of the protruded swelling can be followed up to the rent in the bowel, unless the latter should be too high up to be reached. The only treatment at all likely to be of service, of course, is the reduction of the mass. This is very difficult. In two cases laparotomy was performed and the bowel pulled up. In another the protruded intestine was opened and evacuated of fæces and flatus. After the protruded intestine has been reduced, the rent in the rectum should be sutured. If it be possible to reduce the intestine per rectum, the laceration may possibly be also sewn up in the same way; or the rectum, if previously prolapsed, may be pulled down and then stitches put in. We would remark, with reference to this proceeding, that in the present day laparotomy is not so dangerous a proceeding as it was in the days when some of the cases which M. Quénu quotes occurred; and hence that probably now, in the presence of so grave an accident, few surgeons would hesitate to open the abdomen, pull up the prolapsed bowel, and suture the wound. To elucidate the pathogeny of this accident, Dr. Quenu has made experiments to ascertain the resistance which the rectum offers to a bursting force. Having stitched up the anus, he pumped air into the rectum, measuring the pressure. He found that the rectum would bear, without giving way, a pressure equal to that of a column of mercury sixty centimetres high (about twenty-three inches). When the pressure passed that of seventy centimetres, the peritoneal coat began to crack, and the other coats followed. We may add, that Schatz has shown that the ordinary pressure within the rectum is equal to that of a column of mercury from twenty-five to thirty centimetres high, and that it sometimes rises to that of fifty centimetres of mercury. He also tried, by forcing injections into the veins, to rupture the rectum; but the anastomosis was so free that this result did not happen, and moreover, at a pressure of forty to fifty centimetres, the vein burst in the meso-rectum. The explanation which Dr. Quénu holds as probably correct, is that the rupture takes place in a bowel of which the veins are varicose, its walls congested by prolapse, and softened by infiltration of leucocytes and inflammatory effusion. He points out that in the three recorded cases of spontaneous rupture of the œsophagus, one occurred in an immoderate drinker, and the other two were preceded by vomiting of blood; from which he concludes that the condition of the œsophagus in them probably resembled that of the rectum in the cases under consideration.

THE ABUSE OF ALCOHOL.

Our contemporary, the *Deutsche Vierteljahrschrift für öffentliche Gesundheitspflege* has reproduced the address delivered by Dr. A. Baer, of Berlin, before the ninth annual meeting of the German Society of Public Health, held last September at Vienna, on the Abuse of Alcohol. It is quite impossible in the space at our disposal to give any adequate analysis of the contents of this most exhaustive and learned, and withal impartial, essay on the subject. But our readers will be interested in some short note of it, as it teems with references to the literature of the question in Europe and

America, and with statistics, vital, criminal, and economic, of nearly every civilised country except Spain, Portugal, and the Danubian Provinces.

Dr. Baer is no rabid teetotaler; in fact, he fearlessly maintains the value of the lighter natural wines and beers under certain circumstances, and the comparative harmlessness of even a liberal indulgence in these beverages; but he is unsparing in his condemnation of every form of spirits. He shows, by an irresistible array of statistics, that the terrible effects of alcoholism, direct and indirect, on the health of the individual and his progeny, on the morals and social well-being of the community, are in constant and direct relation to the consumption of spirituous liquors, the part played by wine and beer being, compared with those, really insignificant. The autonomy of the constituent States of the German and Austrian Empires gives a special value to their statistics, the wine-producing and beer-consuming provinces of Germany contrasting most favourably with the spirit-drinking Polish districts of Eastern Prussia, while the habits of the heterogeneous populations of Austria are as diverse as their nationalities.

Dr. Baer discusses in order the effects of the abuse of alcohol on the several organs of the body, its relation to insanity and longevity, and to the health and viability of the offspring of parents addicted thereto. He shows that murder, assaults, and crimes against the person, and suicides, everywhere prevail directly as the consumption of spirits, even in homogeneous populations, as that of France, rising or falling together. Even in the apparent exception of Italy—though from other causes crimes of violence are more frequent among the abstemious but excitable races of the South—the relative proportion of such crimes committed under the influence of drink is greater among the less temperate inhabitants of Lombardy and Venice. But perhaps the crowning example is to be found in Ireland: when, during the five years 1838-1842, the consumption of spirits fell, through the exertions of Father Mathew, 50 per cent., the number of such crimes sank from 64,520 to 47,027, and of executions from 59 in the first to 1 in the last of these years.

The mutual relations of pauperism and drunkenness, each acting as cause and effect, and aggravating the other, are fairly considered, and illustrated by comparisons of the German and Polish provinces of the two empires. In discussing the remedies, legal and social, preventive, repressive, and penal, Dr. Baer shows that a reduction in the number of distilleries has no effect on the consumption. In 1879 the 518 distilleries in Galicia produced no less than 210,577 hectolitres, while the 9782 in the Tyrol yielded only 5628. In 1830 there were in Sweden 173,000 large and small, in 1855 the private stills were suppressed, and in 1870 only 442 distilleries remained; but the consumption of spirits has in no way declined, the sole benefit derived from the change being the greater freedom of the manufactured article from fusel oil—no small advantage, however, since its presence intensifies greatly all the evils of alcoholism. Dr. Baer would have the heaviest possible taxation imposed on spirits, so as to place them, if possible, beyond the reach of the poor except as medicines or costly luxuries, at the same time encouraging the consumption of the less hurtful beers and light wines by reduced imports, and of tea and coffee by entire exemption from duty. But the limitation of the number of retail houses for the sale of alcoholic drinks would be more effectual. To the confirmed drunkard no impediment in the way of obtaining his indulgence will, Dr. Baer admits, be of avail; but equally true is it that the removal of ever-present opportunities of temptation would have the effect of saving thousands from falling into the habit of drinking. In Belgium during the last twelve years the number of drink shops has increased from 45,000 to 96,000, and the consumption of alcohol from 4·42 to 11 litres per head. On the other hand, in Gothenburg, since a company has bought up all the spirit shops, reducing their number from sixty-one to thirty-five, prohibiting all sale on credit, and handing over any profits to the Town Council, the charges for drunkenness have fallen off to one-third, and the cases of delirium tremens show a similar reduction. Scarcely less satisfactory have been the results of the Forbes-Mackenzie Act in Scotland, and of the Irish Sunday-Closing Act, for experience shows that everywhere the majority of offences traceable to drunkenness occur on Sunday, or on Saturday and Sunday. In Prussia 32 per cent. of murders and personal violence occur on the Sunday alone, and 58 per cent. on the two days together—a strong argument, if one were needed, for limiting the hours of sale on those idle days.

Dr. Baer considers the establishment of asylums for inebriates—not only for those who can pay, but also at the public cost for those who cannot—as a measure of the highest importance; but instead of admission being dependent on the free will of the patient as at present, he would have the magistrate empowered to commit the habitual drunkard thereto after a certain number of convictions, as juvenile criminals are sent to reformatory schools. The question of intemperance in the Army is treated at some length, the territorial system of Germany furnishing important data as to the prevalence of drunkenness among the men of the German and Polish provinces respectively.

The remainder of the paper deals with such social enterprises as coffee-palaces, temperance societies, temperance school books, the influence of the clergy, medical men, and teachers, and that possessed in a greater or less degree by every member of the community, which may and must be exerted individually and collectively in staying the progress of this mighty social evil.

THE WEEK.

TOPICS OF THE DAY.

ABOUT a fortnight ago it was publicly announced that the Distribution Committee of the Hospital Sunday Fund were to hold a meeting to apportion to the London hospitals the proceeds of the largest collection yet made in the metropolis. It is stated that since the Fund was instituted in 1873, £284,000 has been collected through its agency for the London hospitals, the amounts in the several years varying from a minimum of £25,000 in 1878 to a maximum of about £33,000 in the present year. Last year the Council received its first legacy of £300, an example which some think might with advantage be more widely followed by those who desire to leave money to hospitals. Testators who adopt this course have some guarantee that their charity will be dispensed in fair proportion to the merits and claims of each institution. But, it may be said with some truth, this is an indolent and by no means creditable method of shirking individual responsibility for the proper use of wealth, by imposing the duty on a committee. We do not expect that the example will be largely followed, and we are sure it will be an evil day for the London hospitals when the wealthy members of the community abandon their special interests in individual charities. It is claimed for the Metropolitan Hospital Sunday Collection movement that its adoption in London has been the means of introducing it all over this country, and even in America; but it has never yet been satisfactorily established that, in the long run, the hospitals have been gainers by the Hospital Sunday system.

A new method of purifying and softening hard water in bulk has recently been introduced under the title of the Atkins process, and promises to be of great public service. The new process is a modification of, and an improvement

upon, the old Clark method of lowering the hardness of water, which consisted in adding lime to the water to be softened, and allowing the mixture to stand for twenty-four hours in large reservoirs, or precipitating tanks, before it could be used. In the Atkins process, however, the precipitating tanks are dispensed with, and the water can be used as it is softened; the method being continuous, no time is required for the water to stand and settle. The process essentially consists in purifying the water chemically instead of mechanically, as in ordinary filtration. A small jet of lime-water is introduced into a portion of the water to be softened, and the two are blended in a mixer, whence they flow into a softening tank, into which the bulk of the water is conducted. From this tank the water, with the lime in suspension, flows into Atkins's rotary disc filters, in which the solid particles are all arrested by an ingenious system of cloth-covered discs placed within a tank, and which present a very large area for filtration within a very small compass. The purified and softened water is next conducted from the filters to storage reservoirs, ready for use. It is claimed for the lime-water, used in this way, that it not only purifies and softens the water in bulk, but that it causes any clayey matters that may be held in suspension to coagulate, thus facilitating their removal. The system has already been applied successfully to private water-supplies, notably at the residence of the Duke of Richmond at Goodwood, and at that of Mr. W. H. Smith, M.P., at Henley; while the first experiment at public works has been undertaken at the waterworks recently opened at Henley-on-Thames. The water there, which is obtained from the chalk, is normally of about ten degrees of hardness; but after treatment by the Atkins process the hardness is found to be reduced to nearly four degrees, which means a beautifully soft water. The apparatus in this instance is calculated to soften and purify 100,000 gallons of water per working day of ten hours.

The arbitrator under the Epping Forest Acts recently signed his final award, and the fine open space on the eastern borders of London is now actually the property of the public for all time. The grand total of expense incurred in securing this property amounts to upwards of £256,000; this, although undoubtedly a large sum, on examination will be found to represent a cost of less than £50 an acre. Contrasting this figure with the sums paid for some of the other metropolitan commons, it appears that while on the one hand Wimbledon Common was preserved for just half the amount, Hampstead Heath cost considerably over £200 an acre; and in nearly every case in which the Metropolitan Board of Works has purchased the soil of any common, the expense per acre has far exceeded the sum which it has cost the Corporation of the City to secure the public right to Epping Forest. The metropolis has certainly to be congratulated on the possession of an open space of great beauty and extent, which has thus been preserved from the persistent encroachments of enterprising builders, to the great sanitary advantage of the overcrowded population of the East-end of London.

A few weeks ago we noticed the particulars of some inquests held by Mr. Payne on newly-born children who had been attended at birth by students from Guy's Hospital. The certificates of death in these cases had appeared so unsatisfactory that, at the request of the jury, Mr. Payne undertook to place himself in communication with the Registrar-General on the subject. That functionary's reply has since been received, and the Registrar-General states that, however regrettable the system may be considered which obtains at the medical schools and hospitals in this respect, the medical officer signing the certificates had committed no illegal act. The Registrar-General has no power to compel people to employ only qualified medical practitioners; he can only instruct his registrars to bring all cases, in which a proper certificate is not produced, under the notice of the coroner. Mr. Payne considers that this reply is by no means a satisfactory one, as what the jury had desired to see altered was the system of sending students to midwifery cases without sufficient oversight on the part of the qualified members of the staff. The reply from the Registrar-General had been, in effect, anticipated by us in our remarks on this subject in our number of July 22. There is, as a rule, no want of supervision over, or of highly skilled help at hand for, medical students in attendance on midwifery cases, and the poor women in London are probably safer in their hands than in those of the majority of midwives.

The monthly return of the Registrar-General for Scotland for June last shows that during that period there were registered in the eight principal towns of North Britain the births of 3814 children, and the deaths of 2230 persons. Allowing for increase of population, the latter number is 186 under the average for June during the last ten years. A comparison of the deaths registered shows that during this period the annual mortality was at the rate of 19 deaths per 1000 persons in Edinburgh, Dundee, and in Leith, 21 in Aberdeen, 24 in Glasgow and in Paisley, and 25 in Greenock and in Perth. Of the 2230 deaths, 916, or 41 per cent., were those of children under five years of age. The miasmatic order of the zymotic class of diseases caused 350 deaths, and constituted 15·7 per cent. of the whole mortality; this rate was, however, exceeded in Edinburgh, Aberdeen, Greenock, and Perth. Whooping-cough was the most fatal epidemic, having caused 87 deaths, or 3·9 per cent. of the whole. The rate from this disease was 4·7 in Glasgow, and 6·2 in Edinburgh. Fever caused 44 deaths, of which number 10 were tabulated as typhus, 33 as enteric, and one as relapsing fever; 1·43 per cent. of the deaths in Perth resulted from fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 420, or 18·8 per cent. Those from consumption alone numbered 301, or 13·5 per cent. Three males and eight females were aged ninety years and upwards, the eldest of whom was a widow ninety-eight years of age.

Mr. Carttar, Coroner for West Kent, recently held an inquiry as to the death of a young woman, aged twenty, the wife of a medical student, residing at Bexley Heath. On the night of the 27th ult. the deceased retired to bed suffering from toothache, and to relieve the pain her husband rubbed some chloroform on her gums with his finger. He returned the phial containing the chloroform to his dressing-case, which he locked, placing the key in a different spot to that from which he had taken it. He then retired to rest himself, and was not disturbed during the night, but when called next morning he found his wife lying dead by his side, with a silk handkerchief in one hand, and the empty chloroform phial, which had been two-thirds full overnight, in the other hand. She had been dead four or five hours. A candle had been left burning in the room all night. A medical man deposed that he had made a post-mortem examination of the body, and found the organs generally healthy, though the heart was flabby, showing, he thought, that the deceased was not a good subject for the administration of chloroform. The appearances were quite consistent with the history of the case as given in evidence. The jury returned a verdict that deceased died from misadventure, through inhaling an overdose of chloroform in attempting to gain relief from toothache.

A report of the accidents which occurred last year on the railways of the United Kingdom has just been issued, from

which it appears that the number of persons killed in 1881 was 1096, and the number injured 4564. Of these there were engaged in the service of the companies 521 (killed) and 2445 (injured). Trespassers, suicides, and others, neither servants nor passengers, numbered 467 (killed) and 265 (injured). Of passengers killed the number was 108, and injured 1854. The proportion of passengers killed and injured during the year from all causes was, in round numbers, 1 in 5,760,740 killed, and 1 in 335,577 injured.

DISTRIBUTION OF THE HOSPITAL SUNDAY FUND.

THE Council of the Hospital Sunday Fund held a meeting at the Mansion House on Wednesday, the 3rd inst., when the Committee of Distribution submitted their report of the several awards they recommended for payment this year. The number of institutions thus benefited this year is 145, an increase of five since last year. The report was received and adopted. The sum available for distribution, after setting aside £1380 for surgical appliances, and allowing for liabilities and expenses, was £32,415 13s. 9d. Of this amount, the sum of £28,446 15s. was awarded to ninety-three hospitals, "including four institutions which may be classed as hospitals"; and £2588 18s. 9d. distributed among the fifty-two dispensaries. We give below the sums awarded to the eighteen general hospitals; but want of space compels us to defer notice of the rest of the awards. General hospitals—Charing-cross, £675; French, £241 17s. 6d.; German, £675; Great Northern, £202 10s.; King's College, £1575; London, £2812 10s.; Metropolitan Free, £281 5s.; Poplar, £315; Royal Free, £562 10s.; St. George's, £1575; St. John and Elizabeth, £112 10s.; St. Mary's, £1012 10s.; Seamen's, Greenwich, £787 10s.; Middlesex, £1462 10s.; Tottenham Training Hospital, £281 5s.; University College, £1012 10s.; West London, £309 7s. 6d.; Westminster, £787 10s.

THE ARMY MEDICAL SCHOOL.

THE forty-fourth session of the Army Medical School was brought to a close on Monday, the 31st ult., when the results of the examinations were announced in the Lecture Theatre by Surgeon-General Longmore, C.B., Professor of Military Surgery. Fifteen surgeons for the Army Medical Department, and eight for the Indian Medical Services, were declared fit to receive commissions. The Herbert Prize (for the highest marks gained at Netley) was won by Mr. H. H. R. Charles, of the Indian Medical Service, who also gained the Parkes Memorial Bronze Medal for hygiene, and the second Montefiore Prize for military surgery; Mr. Westcott, of the Army Medical Department, gained the Martin Memorial Gold Medal for military medicine; Mr. Whitehead, of the Army Medical Department, gained the Montefiore Medal and Prize as best in military surgery; Mr. G. Duncan, of the Indian Medical Department, gained a special prize for pathology, presented by Surgeon-General Sir Joseph Fayrer, M.D., F.R.S., K.C.S.I. The Montefiore Prizes for military surgery have been founded by Mr. Nathaniel Montefiore, F.R.C.S., of Cold East, Hants, and consist of—first, a bronze medal and twenty guineas in money; and second, a prize of books. The prizes were presented (in the absence of Sir Ralph Thompson, K.C.B., Permanent Under-Secretary of State for War, who was detained in London on account of pressure of public business) by Dr. Crawford, Director-General of the Army Medical Department, who expressed the pleasure it gave him to go down to Netley to perform so agreeable a duty for the first time since his appointment to the Director-Generalship. He congratulated all the surgeons on probation on having passed successfully through their examinations, and especially complimented those who had carried off the prizes. He spoke of the great value of the instruction given at the School, and contrasted the favourable circumstances of the young medical officers of the present day with those which obtained at the time when he himself entered the Service. He hoped they would be able to apply their knowledge hereafter to the elucidation of the causes of disease and death from which soldiers still suffer, and which are still in considerable obscurity. Above all, he warned them to be strict in the performance of their professional duty, and never to delegate any part of it to incompetent hands, and always to take care to see that what they did delegate was properly done. Sir Joseph Fayrer afterwards addressed a few words to the young medical officers, and the company then adjourned to lunch at the officers' mess. There were present, besides those already mentioned, Dr. Jones, of the Indian Medical Board; Mr. Meredith, of the Samaritan Hospital; Sir Charles Pearson, C.B., K.C.M.G.; Surgeon-General Holloway, C.B., Principal Medical Officer, Netley; the Professors and Assistant Professors of the Army Medical School; and the other officers of the staff of the Royal Victoria Hospital.

THE ARMY MEDICAL DEPARTMENT.—ARMY MEDICAL SCHOOL, NETLEY.

THE following is a list of Surgeons on probation in the Medical Department of the British Army who were successful at both the London and Netley examinations (July, 1882). The final positions of these gentlemen are not affected by the marks gained at Netley; the marks here given are those gained at the London examination:—

	Marks.		Marks.
1. S. Westcott . . .	2295	8. A. C. A. Alexander	2095
2. H. R. Whitehead .	2280	9. H. S. McGill . .	2065
3. B. M. Skinner . .	2200	10. A. A. Pechell . .	2060
4. C. R. Bartlett . .	2195	11. C. R. Tyrrell . .	2050
5. J. D. T. Reckitt .	2175	12. J. Hickman. . .	1980
6. T. A. P. Marsh . .	2150	13. W. B. Thomson. .	1975
7. R. Kirkpatrick . .	2140	14. H. E. Deane . .	1945
15. S. O. Stuart . . .	1940 marks.		

The first-named gentleman gained the Martin Memorial Gold Medal; the second gained the Montefiore Medal.

THE INDIAN MEDICAL SERVICE.

APPENDED is a list of Surgeons on probation in Her Majesty's Indian Medical Service who were successful at both the London and Netley Examinations (July, 1882). The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—

	Marks.		Marks.
1. H. H. R. Charles .	5455	5. J. P. Barry . . .	4852
2. G. Duncan . . .	5025	6. A. V. Anderson. .	4480
3. W. A. Sykes . . .	4875	7. E. W. Reilly . . .	4445
4. R. W. S. Lyons . .	4860	8. J. Scott	4150

The first-named gentleman gained the Herbert Prize and the Parkes Memorial Bronze Medal, and also the Montefiore Second Prize; the second gained the prize in pathology.

CITY OF DUBLIN HOSPITAL.

THE directors held a special meeting in the Board-room of the Hospital on Friday, July 28, to elect a successor to Dr. John Magee Finny, Physician to the Hospital, who has been appointed King's Professor of Practice of Medicine in the School of Physic in Ireland, and Clinical Physician to Sir Patrick Dun's Hospital. Dr. George Frederick Duffey, Fellow of the King and Queen's College of Physicians, was elected Physician in Dr. Finny's place. Dr. Duffey has been for some years one of the clinical Physicians to Mercer's Hospital, Dublin, a position he filled with much ability and zeal.

THE PARIS WEEKLY RETURN.

The number of deaths for the twenty-ninth week of 1882, terminating July 20, was 986 (549 males and 437 females), and among these there were from typhoid fever 37, small-pox 15, measles 16, scarlatina 8, pertussis 2, diphtheria and croup 28, dysentery 1, erysipelas 1, and puerperal infections 6. There were also 51 deaths from tubercular and acute meningitis, 177 from phthisis, 18 from acute bronchitis, 59 from pneumonia, 94 from infantile athrepsia (21 of the infants having been wholly or partially suckled), and 50 violent deaths (40 males and 10 females). The number of deaths returned this week is less than the mean number of the four preceding weeks. There have been 15 deaths from small-pox in place of 11 last week, and 37 from typhoid fever instead of 44; but the most decided difference is in diphtheria, the deaths from which sank from 41 to 28—this being the lowest number registered for a twelvemonth. The number of deaths from erysipelas has increased from 3 to 11. The excess of 100 deaths this week as compared with the last is principally due to diseases of the respiratory organs. The number of deaths from athrepsia has slightly diminished, at least as regards infants who are suckled, for in those brought up by hand the number of deaths has increased—as would be expected at this season, when milk undergoes so much alteration. The births for the week amounted to 1214, viz., 602 males (464 legitimate and 138 illegitimate) and 612 females (447 legitimate and 165 illegitimate); 95 infants were either born dead or died within twenty-four hours, viz., 47 males (33 legitimate and 14 illegitimate) and 48 females (29 legitimate and 19 illegitimate).

PROSECUTION UNDER THE REGISTRATION OF DEATHS ACT, 1874.

On July 11 a new and important decision was given by Mr. Chance, at the Lambeth Police-court, in the case of a prosecution under the Registration of Deaths Act. Mr. C. F. Groom, M.R.C.S., was summoned, at the instance of the Medical Alliance Association, for wilfully making a false certificate, under or for the purposes of the Births and Deaths Registration Act, 1874, concerning the death of a child named Mary Louise Sparks, on June 28 last. Mr. C. J. Pridham, solicitor to the Association, appeared for the prosecution, and Mr. Mayo for the defence. Evidence was given that the defendant had seen the child once, and had sent a bottle of medicine for her. Mr. Chance held that one solitary attendance did not amount to that degree of investigation of the patient's case and of attendance that would justify the defendant in giving, as he had done, the usual form of death-certificate under or for the purposes of the Act. He therefore convicted defendant of the offence charged, and fined him £2, and £2 2s. costs. This appears to be the first judicial definition of what amounts to such an "attendance" as will justify the medical attendant in giving the usual certificate under or for the purposes of the Registration of Deaths Act.

CENTRAL CRIMINAL LUNATIC ASYLUM, DUNDRUM, CO. DUBLIN.

Dr. Christopher J. Nixon, Fellow of the King and Queen's College of Physicians, and Physician to the Mater Misericordiæ Hospital, Dublin, has been appointed by His Excellency Lord Spencer, Lord-Lieutenant of Ireland, Consulting and Visiting Physician to the above institution, in room of the late Dr. John Hughes. Dr. Nixon is one of the Physicians to the Lord-Lieutenant, but, independently of this, his high professional standing and the reputation he has already won fully justify his appointment, upon which all concerned are to be congratulated.

THE BRITISH MEDICAL ASSOCIATION.

This Association will hold its fiftieth annual meeting next week, commencing on Tuesday, the 8th inst., at Worcester (the city of its birth), under the presidency of Dr. William Strange, Senior Physician to the Worcester Infirmary. The Association was originally founded in 1832, mainly through the exertions of Sir Charles Hastings. It commenced with a little band of 300, which has now swelled to the large number of 9563, with an organisation of branches throughout the United Kingdom, and even reaching to the colonies. The Association has done much for the advancement of medical science during the fifty years of its existence, and has had many pleasant annual meetings. Owing to the circumstances of its being the jubilee year, and Worcester the birthplace, the meeting next week promises to be more than ordinarily interesting. Among other events, a bust of Sir Charles Hastings will be presented to the city by the Association, to be placed in a public building. The oratorio of the *Creation* will be performed at the Cathedral by the Philharmonic Society, assisted by the Worcester, Gloucester, and Hereford Choirs, conducted by the organist, Mr. Done. The public dinner of the Association will be held on Thursday evening. On Friday a garden-party will be given at Madresfield Court by the Lord-Lieutenant, Earl Beauchamp, and the Countess Beauchamp. The meeting will close on Friday evening with a *soirée* given by the President, Dr. Strange, and Mr. G. W. Hastings, M.P., son of the founder. The scientific programme of the meeting was given by us last week.

THE MEDICAL ARRANGEMENTS FOR THE CAMPAIGN IN EGYPT.

There is little additional news to record respecting the medical arrangements of the expeditionary force proceeding from this country to Egypt. We last week gave the names of those medical officers who had been selected for administrative duties, and it may now be mentioned that the officers of the Army Medical Department proceeding in charge of the eight field-hospitals organised for active service at the front are Brigade-Surgeons E. McGrath, Oliver Barnett, H. R. L. Veale, E. F. O'Leary, and E. G. McDowell; Surgeons-Major W. Tanner, J. Warren, and J. Beath. The transport *Carthage*, which is fitting in the Albert Docks to act as a hospital-ship, will be stationed somewhere near the base of operations to receive sick and wounded men, who will be conveyed to the base hospitals to be established on the hills at Cyprus and at Gozo, a small island close to Malta, where a hospital was established during the Crimean war. Surgeon-Major Hume Spry, M.D., of the 2nd Life Guards, has been selected to take medical charge of the brigade of household cavalry, composed of detachments from each of the three regiments of household cavalry, and it is satisfactory to note that the dress of the troopers has been entirely altered to suit the requirements of a campaign in a hot climate. According to the arrangements at present made public, the whole of the force intended for service in the East will have embarked by the 13th of the present month. It is only right to add that, so far as the medical arrangements for the expedition are concerned, everything has been provided to secure the greatest amount of care and comfort for the sick and wounded.

LIGATURE OF THE INNOMINATE.

The case in which Mr. William Thompson, of Dublin, ligatured the innominate artery on June 9, terminated fatally on July 20. There had been no recurrence of hæmorrhage after the thirty-ninth day, when copious hæmorrhage took place, but was controlled by shot-bags. At the post-mortem

examination the sinus was found to terminate in an ulcer that involved the anterior wall of the junction of the innominate, carotid, and subclavian arteries. The innominate and the carotid were filled with clot; and the subclavian contained a clot that occluded it to the extent of half an inch. The ulcer was seated on the distal side of the ligature. The hæmorrhage had apparently taken place from the innominate, as a recent blood-stain was noticed on the cardiac side of the clot. None of the vessels concerned were pervious to water forced in with a syringe. The aorta was atheromatous. Consolidation in the tumour was proceeding satisfactorily.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At an ordinary meeting of the Council of the Royal College of Surgeons, held on the 3rd inst., reports were received from the Court of Examiners, the Committee for General Purposes, and some other committees. A report, dated July 22, was received from the Nomination Committee on the subject of the proposed limitation of attendance by students to one winter course of lectures on anatomy, instead of two courses. It will be remembered that on June 8 the Council of the College resolved—"That in future all candidates for the primary or anatomical and physiological examination, whether for the diploma of Member or of Fellow of the College, be only required to attend one winter course of lectures on anatomy, instead of two courses of such lectures." But at the meeting of the Council on July 13, a memorial, which will be found in another page of our present issue, was received from the teachers of anatomy, objecting to the above-quoted resolution: and, after some discussion, the confirmation of the portion of the minutes of the previous meeting of the Council that related to the resolution was deferred for a further report from the Nomination Committee, to which the memorial from the teachers was referred. The new report from the Committee stated that they had reconsidered the proposal adopted by the Council on June 8, and had also considered the memorial from the metropolitan and provincial teachers of anatomy, setting forth their reasons for objecting to the proposed reduction of the lectures on anatomy from two courses to one course; and that the Committee had agreed to the following recommendation to the Council, viz.:—"That the resolution of the Council approving and adopting the recommendation of the Committee, that the lectures on anatomy be reduced from two courses to one course, be not confirmed in the form in which it is entered on the minutes, but that the following resolution be substituted for it, viz.:—'That in future it shall be at the option of candidates, whether for the diploma of Member or of Fellow of the College, either to attend two courses of lectures on anatomy, in accordance with the requirements of the existing regulations, or to attend, in lieu of the second course of such lectures, at any time during the curriculum of professional education, a course of lectures or demonstrations on surgical anatomy.'" After some discussion, the consideration of the matter was deferred to March, 1883, as it would be inconvenient now to alter the existing arrangements.

The Joint Committee on the proposed examination in Elementary Anatomy and Physiology reported that, in pursuance of a resolution of the Council, an invitation was sent to the teachers of anatomy and physiology in the several recognised medical schools in England to attend a meeting at the College on June 26, to confer with the Committee on the advisability and practicability of carrying out the proposed examination in elementary anatomy and physiology; that twenty-nine of the teachers attended the meeting, and letters were read from several others unable to be present; that the subject was fully discussed; that resolutions were carried by a large majority of the teachers, in favour of the institution of the examination in question; and that the Joint Committee, having met on July 22 to consider the result of the Conference, recommend the following resolutions for adoption by the Council, viz.:—"That all candidates commencing their professional studies on or after October 1, 1882, and pursuing those studies in recognised medical schools in England, be required, before presenting themselves for the primary or anatomical and physiological examination for the diploma of member of the College, to produce certificates of having passed an examination in elementary anatomy and physiology, such examination to be conducted by their teachers at the several medical schools." "That the periods at which the examination shall be held be determined by the teachers at the several medical schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the examination and the date of their presenting themselves for the primary examination at the College." "And that it be left to the teachers at the several medical schools to determine the nature and extent of the examination in elementary anatomy and physiology." The report was approved, adopted, and ordered to be entered on the minutes. The resolutions are to be acted on immediately, without waiting for the confirmation of the minutes.

A report from the President and Vice-President of the College on the matter of the retirement of Mr. Thomas M. Stone was received. The report recommended that in consideration of the long and faithful services of Mr. Stone, he be granted a pension of £300 a year. The report was unanimously adopted.

Mr. William Joseph Lunn, M.D., of Kingston-upon-Hull, who became a Member of the College on May 14, 1838, was elected to the Fellowship.

Mr. John Birkett resigned his office on the Court of Examiners. His resignation was accepted; and the vacancy thus created is to be filled up in October.

HOW INFECTIOUS DISEASES ARE SPREAD.

A few days ago, a girl ill of scarlet fever was conveyed in an ordinary hackney cab from an industrial school in a village four miles from Dublin to the Mater Misericordiæ Hospital in that city. As she could not be accommodated there, she was removed—very properly—in the Cork-street (Fever) Hospital cab to that institution, where she remains under treatment. A schoolfellow shortly afterwards fell ill of the same disease, and was sent to Cork-street Hospital, Dublin. She travelled to town by rail, and then drove from one end of the city to another in a public conveyance—a hackney cab—which deposited her at a short distance from the hospital gate: a fact which proves that either the cabman or the child's attendant knew she was ill of a suspicious disease, and dreaded the consequences of breaking the law were the number of the cab taken at the hospital-gate. It is appalling to reflect what disastrous results may follow this reckless exposure of two individuals affected with so deadly a disease as scarlet fever.

DISSOLUTION OF A BOARD OF GUARDIANS IN IRELAND.

The Board of Guardians of the Poor-Law Union of Carrick-on-Suir, co. Tipperary, has been dissolved by sealed order of the Local Government Board for Ireland "for persisting to neglect their legitimate duties." It appears that the majority of the members of the Board are Land-Leaguers, and as such were anxious to pass a political resolution, which the chairman declined to put to a meeting of the Board on July 1. Accordingly, the recalcitrant majority moved the adjournment of the Board, which motion was carried not only on

the day named, but also on three subsequent occasions, thus leaving the whole business of the Union neglected for three weeks. Under these circumstances the Local Government Board point out that they have felt it necessary, in the exercise of their powers under Section 18 of the Act 10 Vict., cap. 31, to dissolve the Board of Guardians, and to appoint paid officers to carry into effect the provisions of the Act in question with the Union. Meanwhile the Guardians have adopted a resolution to take steps to bring "the arbitrary conduct of the Local Government Board" under the notice of the House of Commons, through Mr. John Dillon, M.P., one of the county members, and other Irish representatives. As Mr. Trevelyan, Chief Secretary to the Lord Lieutenant, is also President of the Local Government Board for Ireland, we are likely to have a lively episode in the House of Commons one of these days.

JUBILEE FESTIVAL OF DURHAM UNIVERSITY.

THE jubilee of the University of Durham was celebrated at Durham in the last week of June most successfully in various ways. A beautiful heraldic window has been erected in the hall of University College, by members of the University and the College; the new University buildings on Palace-green came into use in the early part of this year, and on June 27, at Convocation, a large number of honorary degrees were conferred on noblemen connected with the North of England, and men distinguished in the sciences and arts. Amongst those who received the honorary D.C.L. were George Yeoman Heath, M.D. Durh., the President of the College of Medicine, and G. H. Philipson, M.D. Durh., L.R.C.P., the Professor of Medicine. On June 29 services were held in the Cathedral, and in the evening a dinner in the Great Hall of University College, when the Very Rev. Dr. W. C. Lake, Dean of Durham and Warden of the University, announced that the Bishop of Durham, Visitor of the University, would that day place in the possession of the University £1000 for the purpose of founding a scholarship in memory of his predecessor, the great promoter of literature, Richard de Bury. The number of students in the University, in this the fiftieth year of its foundation, is as follows:—(1) University College, 111; (2) Bishop Hatfield's Hall, 110; (3) the College of Medicine, 127; (4) the College of Physical Science, 82; unattached students, 72. The total number of the members of the University is 2118.

PROFESSOR VON LANGENBECK'S SUCCESSOR.

WE learn from our contemporary, the *Berliner Klinische Wochenschrift* (July 31), that Professor von Bergmann, of Wurzburg (Bavaria), has been selected to fill the post recently vacated by Professor von Langenbeck. The position is one of difficulty, and the newly appointed Professor will need all his well-earned reputation and well-known ability to fill it with satisfaction. For Von Langenbeck is still regarded throughout Germany as the Nestor of surgery. Not only on account of his special talents as a surgeon and a teacher in both civil and military practice, but also on account of his charming manners, has he won for himself, during his thirty-five years' tenure of office, a position which is quite unique even in the German universities, many of the foremost men of which are proud to call themselves his pupils. Von Bergmann is already known as a scientific surgeon, and as a past master in the technical part of his profession. Among his most important works may be mentioned that on Head Injuries. He was formerly Professor in Dorpat, till in 1875 he was called to Würzburg to succeed the late Dr. von Linhart. Professor von Langenbeck was entertained last week by the students of the Berlin University at a farewell supper, and in replying to the toast of his health, he said—"Thirty-four years ago, in the springtime of 1848, when summoned to Berlin to fill the post left vacant by Dieffenbach, I was disposed to decline it. I was on the battle-field, in a war that had opened to me an entirely new field of surgical activity. However, an armistice occurred, and presently peace—a long peace—was established. So I came to Berlin. But I had no sooner arrived, on the 16th of October, than I began to regret the step I had taken. The prospect was exceedingly warlike; but not an open, honest war: for the last street-fight of the 15th and 16th October still raged, and there were many wounded. Nevertheless, quiet times commenced quickly, and I was able to commence University teaching, which from then till now has continued to afford me an uninterrupted activity. If therefore I withdraw myself from this work, there must be strong grounds for my doing so. Intercourse with the young men of a University is so enticing and rejuvenating that one hardly notices the inroads of old age. But academical teaching has its responsibilities as well as its pleasures; and the teacher must ever be on a level with his science, and in full possession of his intellectual as well as physical powers; for the increasing experience which age gives can never replace the loss of physical power. It is the loss of physical power which induces me to take this step—the giving up of my much-loved office." We will hope that the venerable Professor may continue to enjoy good health for many years to come.

MEDICAL PARLIAMENTARY AFFAIRS.

Ventilation of the House of Commons.—In consequence of complaints as to the ventilation of the House, Mr. Shaw-Lefevre read, last week, the following report from Dr. Percy:—"During the seventeen years I have had charge of the ventilation of the Houses of Parliament, complaint has occasionally been made by members of the House of Commons of unpleasant smells within the House, and in every case it has been found that they were caused by contamination of the air outside, and sometimes at considerable distance from the House. As the House is supplied by air from the Common Court, the Star Court, and the river front, it is not possible to prevent such smells when the air is impregnated with odorous matters. A short time ago an unpleasant smell in the House was temporarily caused by an exceptionally high wind blowing down smoke into one of the courts above mentioned from a smoke-shaft. The smell of tarry matter which had occasionally been perceived in the House was caused by the wood pavement in the Star Court, which, in order to preserve the wood, has been set with asphalte. No sewer-gas can by any possibility escape from the drains connected with the House, as the gas is effectually exhausted from those drains by a furnace at the bottom of the clock-tower, and ascends to the top of the tower, where it passes into the atmosphere." The Chairman of Committee, himself a scientific man, and exceptionally sensitive to smells, had stated that he thought, on the whole, the ventilation of the House had been particularly well maintained during the past few months.

Vaccination.—On Friday, in the House of Commons, Mr. Dodson, in reply to Mr. P. A. Taylor, said that he had not received the report of the inspector appointed to inquire into the alleged vaccination fatality at Norwich, and, therefore, could not answer the inquiries relative to the quality of the lymph used.

Cattle Disease.—Mr. Mundella, in reply to Mr. J. Howard, said that early in the present year the Privy Council adopted the plan, which had proved generally successful, of declaring an infected area around every infected place. Norfolk had been entirely free from foot-and-mouth disease for some months. Swine fever has continued to increase, and an order prohibiting the sale of swine in diseased districts has now been put in force. Pleuro-pneumonia is steadily decreasing. There is very little foot-and-mouth disease in the country. Ireland and Scotland are entirely free.

Cultivation of Opium.—The Marquis of Hartington, in

reply to Mr. Pease, said he could not promise to lay on the table the minutes of meetings of Council upon a matter respecting which no final decision had been arrived at.

Navy Estimates.—On Tuesday, on the vote of £69,375 for medicines and medical stores, Mr. Thomasson moved to reduce the vote by the sum of £7900, as a protest against the application of public money for the purpose of carrying out the Contagious Diseases Act. Mr. Campbell-Bannerman reminded the House that a Select Committee had been for four years inquiring into this subject, and were about to send in their report. On a division the vote was carried with only seven dissentients.

We learn that Messrs. Longman's "Dictionary of Medicine," which has been for some five or six years in preparation, is now actually completed, and that it will be published at the beginning of the medical winter session, in October. The work will form a volume of over 1880 pages octavo, and the contributors to it, over two hundred in number, are amongst the most eminent members of the profession both in this country and abroad. Notwithstanding the length of time that has elapsed since the work was commenced, the facilities afforded by the stereotyping of the proofs, and other arrangements, have enabled the editor to revise the work throughout the progress of it, so as to bring the information, in even the earliest sheets, down to the very latest date.

The death of Eliza Anna, the widow of the late Sir John Rose Cormack, occurred in Paris on July 19. Lady Cormack had suffered much during the sieges of Paris in 1870, when she remained with her husband in the city, and had never fully recovered health and strength. Lady Cormack survived her husband but little more than two months.

The Bradshawe Lecture of the Royal College of Physicians of London will be delivered at the College this year on Friday, the 18th inst., at four o'clock, by Dr. Long Fox. The subject of the lecture will be "The Influence of the Sympathetic System on Disease."

The very large number of 284 candidates have presented themselves at the First Examination for the Licence of the Royal College of Physicians, this week. The examination began on Monday, July 31, and is still going on.

London Sanitary Protection Association.—We are glad to hear that this Association is progressing in the most satisfactory manner. When we noticed its first annual meeting in March last it had only 192 members, while it now numbers nearly 500, has been obliged to move into larger offices, and employs permanently two inspecting engineers instead of one. Its finances, also, have improved, of course, in a like degree; and the Association is prepared to extend its operations to any degree that may be called for.

Fracture of the Astragalus.—At a meeting of the Medico-Chirurgical Society of Montreal, Dr. Shepherd, Demonstrator of Anatomy at McGill College, read a paper on a hitherto undescribed fracture of this bone, and exhibited three specimens from dissecting-room subjects. The portion fractured was the process external to the groove of the flexor longus pollicis muscle, to which the posterior fasciculus of the external lateral ligament of the ankle-joint is attached. Dr. Shepherd thought that it was produced by extreme flexion of the ankle with a twist of the foot outwards, and was probably one of the lesions which occurred in severe sprain. He suggested that it might account for some of the cases of severe sprain which recovered with impaired movement of the joint. The union was fibrinous. He had not been able to produce the fracture experimentally. At a subsequent meeting, Dr. Shepherd showed a fourth specimen in which there was bony union. There was no history to any of these cases.—*Phil. Med. News*, June 10.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At an ordinary meeting of the Fellows of the Royal College of Physicians, held on Thursday, July 27, Dr. J. A. Grant, of Ottawa, and Dr. Henry Blanc, of Bombay, were admitted as Fellows; and eight gentlemen, who had been approved of by the Board of Censors, were admitted to the Membership. The Examiners for the College reported that out of fifty-one candidates who presented themselves for the final examination for the licence of the College on July 17, forty-three were approved; and licences were granted to these gentlemen. On the proposition of the President of the College, authority was given for the appointment of an Assistant-Registrar. A communication was received from the Secretary of State for the Colonies, forwarding a report on the yellow fever at Barbadoes. The Senior Censor (Dr. Sieveking) moved, in accordance with the notice of motion given at the last previous meeting of the College, "That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians." The resolution excited considerable discussion, and various amendments to it were, we understand, suggested; but in the end Dr. Sieveking's resolution was carried, though with the very important omission of the words "in non-medical journals," and with the insertion of "or of medical or surgical appliances" after the words "and other preparations."

A report from the Council was received, in which, among other things, the Council referred to the fact that at present the examinations in Anatomy and Physiology at the College are conducted by the same examiners, and stated that, in the opinion of the Council, the time had arrived when anatomy should be treated as a separate subject from physiology, and that examiners should be appointed with reference to their fitness to examine on these subjects respectively. The Council would, if authorised, submit to a future meeting of the College the names of such additional examiners as may be required to carry this suggestion into effect. The report was adopted.

The annual reports of the Library Committee and Curators of the Museum were also received and adopted. The Library Committee reported that within the last year a larger number of books had been added to the library than, with one exception—that of the year 1877, when Dr. Arthur Farre had presented his medical library to the College,—had happened in any one year since the opening of the present building in 1825. From Dr. A. W. Barclay the College had received the very handsome present of 510 volumes, being the principal part of his library. A special vote of thanks was given to Dr. Barclay. The College had bought, for a small sum, a large and valuable collection of works on insanity, lunatic asylums, etc., 118 works in all, made by Dr. Arlidge, of Newcastle-under-Lyme. The executrix of another Fellow of the College, the late Dr. Jenks, of Bath, had presented to the College a complete copy of *Notes and Queries*, from its commencement to the present time, forming sixty-seven quarto volumes. Votes of thanks were awarded to Dr. Arlidge and the executrix of Dr. Jenks. Many other books, journals, and pamphlets had been added to the library by gift or by purchase. The Committee also reported that a marked increase had taken place in the number of Fellows, Members, and Licentiates who had made use of the reading-room of the College during the year.

The report from the Committee on the Sale of Poisons was received and taken into consideration. The following sections of the report (A.) and (B.), with regard to which the Committee was unanimous, were adopted by the College:

"(A.) *The Wholesale Sale of Poisons.*—According to the present provisions of the law, any retail dealer in poisons, or any medical man, is able to obtain unlimited quantities of the most dangerous drugs, without any means existing to secure the registration of such transactions. Your Committee is therefore of opinion that it should be made impossible for medical men or others to obtain wholesale or

dangerous quantities of strychnine or other poisonous vegetable principles without the registration of the transaction in such a way that it can be traced. With this view, your Committee recommends that some of the existing restrictions on the retail sale of these dangerous poisons be extended to their wholesale sale, and that the law be so altered as to make it obligatory on the wholesale vendor not to sell any such poison to a person unknown to him, except on the introduction of some person known to the seller. Your Committee is of opinion that this provision should apply to sales to medical men as well as to other persons.

"(B.) *The Sale of Patent Medicines containing Poisons.*—Your Committee recommends that the sale of patent medicines containing poisons should be placed under the same restrictions as the sale of other poisons in Schedule (A) of 'The Pharmacy Act, 1868,' and that the proportion of any poison contained in such medicine should be stated on the label."

The consideration of the rest of the report was deferred to a future occasion.

The following officers of the College were elected:—*Censors:* Drs. Munk, Andrew Clark, Lionel Beale, and F. W. Pavy. *Treasurer:* Dr. Frederic Farre. *Registrar:* Dr. Pitman. *Harveian Librarian:* Dr. Munk. *Curators of the Museum:* Drs. W. Wegg, Lionel Beale, Reginald Southey, and John Curnow. The Examiners also were elected. The remaining business before the College was deferred.

THE PROPOSED REDUCTION OF COMPULSORY ATTENDANCE ON LECTURES ON ANATOMY.

The following memorial was received by the Council of the Royal College of Surgeons at their meeting on July 13:—

"At a meeting of the metropolitan and provincial lecturers on anatomy, called especially to consider the proposed reduction of compulsory attendance on lectures on anatomy to a single course, it was unanimously resolved—'That, in the opinion of this meeting, it is advisable that the attendance on anatomical lectures should extend over the first and second years as heretofore.'

"At this meeting the following lecturers were present:—Mr. J. Langton and Mr. H. Marsh, of St. Bartholomew's Hospital; Mr. F. R. Cross, of the Bristol Medical School; Mr. W. H. Bennett, of St. George's Hospital; Mr. H. G. Howse and Mr. J. N. C. Davies-Colley, of Guy's Hospital; Professor Curnow, of King's College; Mr. W. Rivington, of the London Hospital; Mr. A. Hensman, of the Middlesex Hospital; Dr. R. W. Reid, of St. Thomas's Hospital; Professor Thane, of University College; Mr. A. P. Gould, of the Westminster Hospital.

"Letters expressing disapproval of the proposed reduction were received from the following lecturers, who were unable to be present:—Professor Thomas, of the Queen's College, Birmingham; Mr. E. Bellamy, of Charing-cross Hospital; Mr. A. F. McGill, of the Leeds School of Medicine; Mr. E. Skinner, of the Sheffield School of Medicine; Dr. W. P. Mears, of the Newcastle School of Medicine; Mr. W. Anderson, of St. Thomas's Hospital.

"In support of the foregoing resolution, the undersigned would beg to submit the following reasons for the consideration of the Council of the Royal College of Surgeons:—

"1. Attendance upon lectures is a valuable discipline for students, many of whom come up at a very early age, and cannot safely be left without systematic guidance and instruction.

"2. Anatomy is the most important subject in the first half of the student's curriculum, and is the foundation upon which physiology, pathology, medicine, and surgery are built.

"3. Anatomy differs from the other subjects of the medical curriculum in consisting of a mass of facts, in many cases isolated, which can only be impressed upon the memory by frequency and variety of repetition.

"4. Considering the importance of the subject, the time now devoted to the study of anatomy is no more than is necessary; and, in our opinion, under present arrangements, this time is distributed between lectures, demonstrations, and dissections in the proportion which is most advantageous to the student.

"5. As a complete course of lectures on anatomy cannot be given in a single session, it is now the universal practice to distribute the subject over two years.

"6. The Council of the Royal College of Surgeons have not stated whether the proposed single course of lectures is to be made compulsory upon students of the first or second year. The lecturers on anatomy find it impossible to supply this omission, for the objections to either of these alternatives appear to be equally strong. If the course is to be delivered to first year's students only, it will speedily degenerate into a very bald and elementary exercise; if to second year's students only, the first year's man will lose a valuable and comprehensive introduction to the study of anatomy, and will, moreover, in many cases, be entirely deprived of the personal guidance of the most experienced of his teachers in that subject.

"7. The proposed change will only operate in favour of the less industrious students. At present, the more diligent students do attend, in many cases, two courses of lectures, when only one is compulsory—*e.g.*, in the classes of physiology, materia medica, medicine, surgery, and midwifery,—and without doubt will continue to do so in the case of anatomy, even if the regulations are altered. The sole effect of the change would consequently be to encourage those students for whom alone compulsion is necessary, to content themselves with attendance upon a single course, which must necessarily be imperfect and insufficient.

"John Langton.	"G. D. Thane.
Howard Marsh.	A. Pearce Gould.
E. Bellamy.	Edmund Robinson.
W. H. Bennett.	F. R. Cross.
H. G. Howse.	W. Mitchell Banks.
J. N. C. Davies-Colley.	S. Snell.
John Curnow.	E. Skinner.
A. Hensman.	H. Thomas.
W. Rivington.	A. F. McGill.."
R. W. Reid.	

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Blaxall on Enteric Fever at Sherbourne.

Enteric fever having made its appearance in the town of Sherbourne, the Local Government Board were solicited to institute an investigation, and Dr. Blaxall was despatched there in April last for that purpose. Dr. Blaxall was specially selected for this service on account of his having previously inspected Sherbourne in the year 1873, in connexion with a severe and fatal outbreak of enteric fever. Upon the present occasion, however, the outbreak was fortunately a very limited one, only ten cases having been reported, and these generally of a mild form, none of them proving fatal. Before Dr. Blaxall's arrival upon the spot, the Medical Officer of Health had had reason to suspect the water-supply of the houses visited by the fever. This water was obtained from a spring outside the town. He accordingly advised that its use should be discontinued, and the town water laid on in its place. This was at once done, and no case was reported after. The facts arrived at in the course of the inquiry induced Dr. Blaxall to come to the conclusion that although the spring-water referred to (known as the "Kennel Barton" water) had ample opportunities of becoming polluted at its source, it was not until it reached the town that it became dangerous, through becoming infected by sewer-air before being used for drinking. In each of the four houses invaded by the fever the pipes conveying the drinking-water were in direct relation with the closet pans, and these were stated to be the only ones in the town in which such dangerous connexion existed between the water-closets and the drinking-water. Moreover, the evidence of the local practitioners established the fact that antecedent cases of enteric fever had existed in the town, affording opportunity for specific pollution of the contents of the sewer. In 1873 the epidemic was traced by Mr. Blaxall to the direct communication then existing

between water-closets and water-mains, and the present outbreak, he thinks, afforded a second illustration of similar evils appearing to result from the selfsame cause. On this occasion the outbreak was, the report says, of very small dimensions—a fact both instructive and satisfactory, as evidencing that in recent years the Sanitary Authority has taken much pains to give effect to the recommendations which were the outcome of the former inspection, especially with reference to providing service cisterns for flushing closets, and to ventilating the sewers. The operations of the Authority have, indeed, resulted in marked improvement in the public health; for whereas formerly mortality from enteric fever was of annual occurrence, during the last eight years, since the carrying out of the measures recommended by Dr. Blaxall, deaths are recorded from it in one year only; and this immunity is confirmed by the testimony of the local medical men. At an informal meeting of the Sanitary Authority, before leaving the town, Dr. Blaxall advised that the sewers should be thoroughly disinfected, the ventilation of them improved, and better provision made for flushing; also that means should be provided for filtering the Board of Health water before delivery, and that every precaution should be taken to protect drinking-water from pollution by sewer-air or otherwise; and he further urged that the drinking of water from sources so liable to contamination as the Kennel Barton spring should be discontinued.

FROM ABROAD.

Dr. Jules Simon on the Convulsions of Children.

The following is an abstract of a lecture delivered on this subject at the Hopital des Enfants Malades, and published in Nos. 54 and 55 of the *Gazette des Hopitaux* :—

The child is frequently the subject of nervous phenomena, whether these may occur transiently as the consequence of an indigestion, form the prelude of an eruptive fever, or be symptomatic of a microcephalia. So, too, infantile paralysis may commence by convulsions; and among the outpatients or in private practice we meet with little girls full of affectation, intelligent, and of coquettish manners, presenting a different order of the affection (young subjects of hysteria in its budding state), who from time to time suffer from these first spasmodic convulsions. In other children the convulsive condition depends upon the existence of some cerebral lesion. Convulsions, in fact, may be classed in three groups. The first of these comprises eclamptic idiopathic convulsions by reflex action, supervening, for example, as a consequence of burns or during the progress of pneumonia; in the second group are placed those which are due to epilepsy, an affection the anatomico-pathological lesion of which is as yet unknown to us; and in the third group we may range the convulsions termed epileptiform, identical with those of the preceding group, but dependent upon a lesion of the central nervous system.

The eclamptic convulsions, or simply eclampsia, of the first group may be either external or internal. As an example of the first of these, we may have a child, during the course of an indigestion, seized with sudden loss of consciousness, and a kind of general rigidity, and then return to itself. In internal convulsions there may be a sudden spasm of the glottis, with arrest of the functions of all the organs which participate in respiration. These may also be termed bulbar convulsions, because of the participation of nerves which spring from the region of the bulb. It is to such convulsions as these that children are seen succumbing after two or three recurrences. These, in this lecture, will be passed over, to give exclusive attention to the external convulsions, or eclampsia, properly so called, no appreciable lesion causing which is recognisable at the autopsy, and which is really of reflex origin. In the majority of these cases the cause resides in some disturbance of digestion, whether this be in the form of infantile dyspepsia, actual indigestion with all its accompaniments, serous diarrhœa coming on suddenly, the lientery of warm weather, or an attack of enteritis. Thus, then, any perturbation of the functions of the stomach or intestines, without organic lesion, may induce convulsions. The fact is of frequent occurrence in children less than two or three years of age. Certain conditions of the skin may also induce convulsions, such as a generalised eczema, or vesication from too large a blister. They may also arise from a rapid impression of cold or even of great heat occurring in the child's room, as also from an extensive burn, especially on the abdomen or other sensitive region, or the prick of a pin placed in the napkin. Among the causes of eclampsia of children, dentition must be mentioned, not that it acts in this case directly, for it is rarely sufficiently painful to do this, but rather indirectly, and as a consequence of the disturbance of the digestive organs to which the dental evolution gives rise. Retention of urine, or cystitis of the neck of the bladder, a foreign body in the ear, the compression of an undescended testis, an umbilical hernia, and the presence of worms in the intestinal canal, may all give rise to this eclampsia. Sometimes it appears at the commencement of an eruptive fever, or of an attack of pneumonia or erysipelas, forming part of the prodromes of the disease itself. Sudden hæmorrhages, intermittent fever or marsh-poisoning, the condition of asphyxia produced by pertussis or capillary bronchitis, etc., may give rise to convulsive phenomena; and sometimes in very impressionable children a moral emotion suffices to induce them. There are also, besides the causes enumerated, certain predispositions. Thus, the age at which convulsions occur, extends from birth to two or three years, and they are more frequent in children whose parents have themselves suffered from some nervous affection, in debilitated children, and in those who live in the midst of an alcoholic medium—that is, children whose parents, taking them with them to the pot-houses, give them portions of their drink, coffee, etc., to keep them awake or prevent their crying, or only because they are taking them themselves, and thus engender a predisposition to nervous accidents.

How are these eclamptic convulsions to be recognised? and first it is to be remembered that they entirely resemble epileptiform attacks, and like these may be divided into severe and mild attacks, with the three periods of tonicity, clonicity, and coma.

Supposing that we have to do with a severe (*grande*) attack. The child is suddenly seized, after some prodromes, in which in turns it becomes pale and flushed, and exhibits its nervous condition in the tendency to convulsive twitchings at the slightest impression. It then loses consciousness and exhibits tetanic rigidity, the face becoming suddenly pale, contracted, and motionless, the eye rolling slowly in the orbit, and the respiration arrested. Such is the first period of the attack, which only lasts for some seconds. Then the face becomes swollen, with contracted and grimacing features, the trunk and limbs being, as well as the jaw, agitated by clonic movements; the tongue is forced out of the mouth, the saliva flows away, consciousness and sensibility are lost, and the pupil, which in the first stage was narrow and contracted, is now dilated. Finally comes the stage characterised by stertor and coma—the whole attack with its three stages not lasting altogether more than half a minute, or a minute at the outside. Those who state that they have witnessed attacks lasting ten or fifteen minutes, confound a series of attacks following each other. During these convulsive movements the child *secretes no urine*, only voiding the small quantity there may be in the bladder; and this fact is of great importance to bear in mind, for the attacks, following each other rapidly, may induce a paroxysm that lasts for hours or even all day; and we can never be certain that it has passed away until the child has voided urine abundantly, which is always the case when the attack has completely terminated. While these convulsions are mostly general, yet one side of the body is usually more affected than the other—the right more so than the left; but we must be careful not to conclude from this that there is a cerebral lesion, the phenomenon being solely due to the fact that congestion of the brain almost always predominates a little more in one of the hemispheres. Besides these *grandes attaques*, there may be *petites attaques* or partial convulsions, which occur at one point or region. Thus the child on waking is seized with sudden fear, and its head falls down again; or the attack is represented by a single phenomenon, such as a convergent strabismus with a fixed stare, and absence of intelligence—this lasting for a few seconds, after which the child comes to itself again. On other occasions there is temporary rigidity of a limb, a certain degree of agitation, or some strange act performed as if

under the influence of passing insanity. These small, partial attacks are of importance to be known, for they may put us on a way of treatment which will enable us to prevent the *grandes attaques*. As to congestion of the brain in eclampsia, we have proof of it at the autopsies of children who have succumbed to a repetition of the convulsions. A true congestion is then found, as also serous effusion, and sometimes a miliary apoplexy, explaining the persistence of strabismus, paralysis of a limb, or idiocy.

As to the prognosis, it may be said that the *grandes attaques* are far more alarming by the picture which they represent than they are in reality; and children who are the subject of them are not more disposed to idiocy than others. Nevertheless, there are convulsive attacks which may be very serious, and they should be distinguished: these are the terminal convulsions of another disease, as pertussis, asphyxia, capillary bronchitis, albuminuria, etc. —convulsions which end in death. Exception, however, exists as regards attacks which supervene in the course of uræmia, and which, usually transitory, are less grave than those which are consecutive to asphyxia. As a rule, then, initial eclamptic convulsions are generally not dangerous, while those which are terminal to another disease are attended with considerable danger. The gravity, moreover, of eclamptic convulsions is also proportionate to their number and repetition.

In reference to diagnosis, the convulsions of infancy should be classed into three groups corresponding to three pathological conditions, which are perfectly distinct in spite of the resemblance which they may present—viz., eclampsia, epileptic convulsions, and epilepsy. The *eclamptic child*—that is to say, one who is subject to purely nervous disturbances —is ordinarily very young, approaching to the second or third year; that is to say, an age in which the nervous system, itself very young also, is easily shaken. To this characteristic may be added another, derived from the attack itself, namely, its sudden appearance after almost insignificant prodromes, and under the influence of an appreciable accidental cause. Moreover, these attacks are very irregular in their appearance, and last longer than those of the other groups; and they do not return without some new accidental cause. Although idiopathic, they may become localised, so that we not unfrequently see convulsions affecting this or that point of the body, or one side only. Generalisation of the convulsions is, therefore, not a diagnostic sign of eclampsia.

Epileptiform attacks symptomatic of a lesion may affect young and old alike, the accidents persisting as long as the lesion. These attacks are more persistent, appearing frequently several times a day, and they present themselves under the two forms of *grandes* and *petites* attacks, while eclampsia never appears except in the form of *grande attaque*. In epileptiform convulsions the attacks become mingled together, and when they terminate, the patient may remain contracted, idiotic, paralysed, depressed, or over-excited, in consequence of the lesion itself. As to *epilepsy*, it is a neurosis which is scarcely met with before the ages of four or five, so that the age of an individual the prey to convulsions is already an important distinctive element in diagnosis. Epileptics are nervous individuals in whom the fits often return every three weeks or month, the convulsions in them taking on the form of both the *grandes* and *petites attaques*. What distinguishes these from epileptiform convulsions is that they do not lead, as the latter do, to paralysis, contractions, or intellectual disturbances at the outset of the malady. The epileptic child may remain reserved and fond of isolation, but it is not idiotic. The epileptic also differs from the eclamptic child in the fact that the latter, the attack over, resumes its ordinary life.

As to the treatment of eclampsia, the statement contained in most books is very discouraging, as the utility of intervention is generally denied. Not only Trousseau advises us to do nothing, but he also declares that any application made to the skin, for example, only aggravates the convulsions. This is entirely erroneous, for the child during these attacks feels absolutely nothing, and the mustard bath cannot therefore be painfully felt. So far from following the advice of Trousseau, we should interfere actively, for fear, for example, of the production of miliary apoplexy. Interference is justifiable, not that we may seem to be doing something, but because it is useful, important, and necessary; and from the moment the child is in full convulsion and feels nothing, we need be under no fear of arousing its sensibility.

Preventive Treatment.—A child which hitherto has been as others at its age, becomes odd or original in its manner, sleeps badly, being in its sleep agitated by nervous twitchings; and its parents are also often of a nervous disposition. It is in the presence of such a state of things as this, which may be termed prodromic, that active intervention becomes necessary in order to prevent an explosion of convulsions. Such a child should be brought up away from the family, which need not prevent its mother superintending it with all her solicitude. It should be kept in a kind of isolation, in the quietude of a room apart from the general family. The state of its digestive organs should be carefully watched, and a little bromide administered in order to allay any nervous excitability. It should not be kept in too high a temperature, nor covered up either too much or too little. These, it may be said, are but rules of ordinary hygiene, but here they are of an importance not always appreciated by nurses or mothers. The bromide may be administered in syrup in the proportion of one gramme to fifteen, of which a teaspoonful may be given in a little water before a very light evening meal. From time to time a little magnesia and small enemata may be employed; and great care must be taken to interdict sea-bathing, saline or sulphurous baths, as also tea, coffee, and, above all, alcoholic liquids.

Treatment of the Attack.—Called to a child in a fit, even before making any inquiries, the practitioner should *himself* at once administer an enema composed of a glass and a half of tepid water and a dessert-spoonful of salt, or three or four spoonfuls of salad oil, or glycerine, or honey—all things usually at hand. It is necessary for the practitioner to do this himself, as mothers and nurses usually lose their heads. Some fæces and urine are passed, and the attack is relieved, but the teeth remain still closed. If, however, the mouth can be moderately opened, an attempt should be made to tickle the uvula with a feather or pencil, in order to induce vomiting; and if the mouth can be sufficiently opened an emetic should be given so as to clear out the stomach of undigested aliments—the most frequent cause of convulsions. But if the convulsions continue, some ether or chloroform (the latter in preference) should be poured on a handkerchief, and the child caused to inspire it freely, in order to calm the nervous system. If the convulsions reappear, this should be resorted to again. When the paroxysms which had been calmed by these means are repeated, a mustard-bath should be prepared, and the child plunged into it by the practitioner without any fear of Trousseau's dictum of the danger of aggravating the convulsion. When the child comes to itself it should be rapidly and carefully dried and put to bed, having recourse to the chloroform again if the convulsions recur. Chloroform also often induces vomiting. Supposing the convulsions return after a short calm, the child should then be placed again in the mustard-bath, and afterwards the parents should be directed to give the following mixture [doses not stated] until the child has passed a sufficient quantity of urine:—R. Lime-leaves water, 100 grammes; bromide of potassium, 1 gr.; musk, 5 to 10 centigr.; syrup of codein, 5 gr.; syrup of orange-flowers, 30 gr. The composition of this mixture may be criticised, and it may be supposed that the codein will induce congestion of the brain. But this is pure theory; and its employment has been found very beneficial. Calmness is restored, and the termination of the attack is announced by the abundance of urine which is passed. The child may remain, however, for some days nervous, impressionable, and irritable; and here, contrary again to the advice of Trousseau, intervention directs the employment of a blister to the nape, four centimetres in length and three in breadth—but this on the condition of leaving it on for only three hours, and following it for another hour with a starch cataplasm. If blisters induce convulsions, it is only when they are employed of too large a size and left on too long. Otherwise there need be no anxiety about them, and great advantage may be derived from their employment.

PRURITUS.—Prof. Duhring states that he frequently employs the following lotion for the purpose of allaying the itching in pruritus, applying it thrice daily:—Carbolic acid ʒiss., glycerine fl. ʒiv., alcohol fl.ʒj.; water to make Oj.—*Philadelphia Med. Reporter*, July 1.

REPORT ON THE USE OF BOLIVIAN COCA AS A MEANS OF ASSUAGING THIRST.

We are indebted to the courtesy of Sir Joseph Fayrer for the opportunity of laying before the profession the following very interesting report on the use of coca as a means of assuaging thirst when troops are marching through a tract of country with a deficient or bad water-supply. The paper, which is by Surgeon-Major T. Edmonston Charles, M.D., of H.M. Indian Army, Honorary Surgeon to the Viceroy, was addressed to Sir Joseph Fayrer, as Physician to the Secretary of State for India.

"Having taken refuge here from a blinding snowstorm, the associations of this place of nearly 2000 years, connected with difficult marching, prompt me to bring to your notice a very valuable property possessed by the leaves of the *Erythroxylon coca* of relieving thirst. The very remarkable effects that I have both myself experienced and have observed while experimenting on others have led me to believe that a small ration of this leaf, if served out to bodies of troops marching through a country badly supplied with water, would prove of inestimable comfort to the men, and might even on occasion enable a General to carry an army across a country otherwise impracticable.

"News of the bombardment of Alexandria has not yet reached me, but the rapid march of events places the probability of the despatch of Indian troops to Egypt as an eventuality so near at hand as to justify me in urging the Government to purchase the entire stock of coca-leaf available both in the London and Paris markets, with the view of supplying it to the troops from India. The use of it will not only help the men to do a long day's march where no water is to be had, but save them from the diseases caused by drinking bad water while moving past places with a doubtful supply. Independently of the gain thus immediately within our grasp, I hope the opportunity may not be allowed to slip of making the occasion available for studying the limits within which the leaf may be serviceable to an army in the field, and that the great importance of the question may be urged on both general and medical officers, with the view of encouraging them to make exact observations by means of comparative experiments of different bodies of men under similar circumstances as regards deprivation from water, etc., the one set supplied with coca, and the other marching without. Had our troops been provided with this leaf in Afghanistan, instead of the disaster after Maiwand, our military historians would have had to chronicle a strategic movement to the rear on Candahar. Had the Russian detachment possessed this leaf they would have reached Khiva over the route they were sent to cross, instead of having been forced to relinquish the attempt and retire demoralised, with their ranks thinned by death, in consequence of want of water.

"I lately took one guide and three porters with me to the top of Mont Blanc, and supplied each man with five grammes of coca-leaf—that is, nearly eighty grains apothecary's weight. They spent about ten hours on the mountain without a drop of water, and with only a very limited supply of wine. Besides the wine, they drank no tea or coffee or other liquid, neither did they use ice or snow. The evidence of these four men is most explicit and unanimous as to the great relief they experienced in chewing this leaf, and how much easier it rendered the great exertion required of them by assuaging a tormenting thirst. Every climber knows that going up Mont Blanc without water is no new achievement, as wine is the usual drink carried with them on the ascent. The thirst to be endured, however, is ill assuaged by wine, and if the wine is indulged in as often as the promptings of thirst suggest, very undesirable effects on the brain and nervous system follow. Hence the use of coca is hailed as a real help by these men, who have to gain a livelihood by undergoing the sufferings connected with Alpine climbing. I should perhaps mention that besides the thirst caused by cold and altitude, as the latter part of the descent was made under a burning sun, some hours of thirst caused by heat—during which no wine was drunk—afforded me an opportunity of seeing how coca acted, under circumstances not very dissimilar from those under which troops may have to march in Egypt.

"I judge it advisable to inform you that I believe the observation as to the thirst-assuaging powers of the Bolivian plant to be an original one on my part. I do so not to make any claim as to priority of having recognised this property in the plant, or to insist on my having been the first to urge its practical application to relieve the necessities of an army in the field, but simply to guard you, should you think it necessary to consult the literature of the subject, from the danger of believing that I overrate the powers of this agent as a thirst-assuager owing to other observers having overlooked the valuable property that I bring to your notice. I may possibly be mistaken in this allusion as to priority, and neither is my reading so extensive nor my memory so retentive as to make me wish to insist on it further than may be necessary to secure for myself a careful hearing on a subject that I consider one of considerable importance to a military surgeon, and one that merits the careful consideration of a military nation. To enable you to make a trial of the leaves without delay, I enclose a small supply. In five minutes the sialagogue effects of the leaves while being chewed will manifest themselves to you, and serve to convince you that you have a drug to experiment with that has few rivals to fear in this direction. By abstaining from fluids during a meal, and having resort to the constant chewing of the leaf for some hours after, you will be able to obtain for yourself personal proof that the craving for water is materially lessened. As the fibre of the leaf becomes disintegrated by the act of mastication, the impalpable powder produced becomes mixed up with the saliva, and is involuntarily swallowed little by little till the entire mass placed in the mouth has disappeared. A few hours' walk on the sunny side of Pall-mall while chewing the leaf will also be a good test to inspire you with immediate confidence in the quality of the drug to which I beg to solicit your attention.

"I have purposely abstained from commenting on the power claimed for this plant of possessing sustaining properties under prolonged exertion. I have not been able to satisfy myself on this point, and, in fact, believe that recorded observations place such effects in an exaggerated light. I consider that we have other agents at our disposal, not only equal, but superior to coca in insuring such results. Although I have accumulated during past years a large personal experience of the effects of coca in enabling women in labour to undergo days of continuous travail without apparent loss of nerve-power, I do not think this a fitting occasion to dwell on this property of coca. For a similar reason I only refer to my having watched its effects given in infusion in relieving the intense headaches of nervous exhaustion, to my having used the drug with good effects to ward off the failure of nerve-power during prolonged fevers, and to enable patients to struggle through the effects of other exhausting diseases. Should you desire information on these points, with the view of employing the drug under other circumstances of military medicine than for the one object for which I transmit to you the present communication, there are, doubtless, many physicians of light and leading both in London and Paris who would be glad to supply you with the necessary information and observations, and to make up for my silence on the points casually alluded to. At the time that the late Sir Robert Christison published an account of his ascent of Ben Nevis while chewing the coca-leaf (*Edinburgh Medical Journal*, about ten years ago), the Professor of Botany in Calcutta—Dr. King, if I am not mistaken—was unable to furnish me with a supply of the leaf to experiment with in the Medical College Hospital, as there were no bushes of this plant in the Calcutta Botanical Gardens. He, however, informed me that the shrub grew in the Botanical Gardens in Ceylon. I had no occasion to write to Ceylon for it, however, as it came to my knowledge that the active caterers for the Calcutta drug market had received advices of supplies having left England, and being so near that time would not be gained by writing to Ceylon. I mention this, that should you desire it, a telegram may be sent to Ceylon to strip their bushes for the use of the Indian contingent, that they may have a small supply to land in Egypt with.

"As soon as I made up my mind to do some Alpine climbing, I telegraphed from Chamounix to Paris for some coca to experiment with. The firm I selected was that of 'C. Collas, 8, Rue Dauphine,' and they supplied the sample enclosed. Every large drug firm either has or can procure the leaf both in London and Paris. It is

and back. This was followed by temporary cessation of the symptoms. During the succeeding winters many remedies extensively used for the manufacture of coca wine, and also in that of the elixir of coca, with which the wine carte of every well-furnished hotel is supplied, as well as in the composition of many tonic and nerve-invigorating popular remedies. It is the leaf alone that is a thirst-assuager, and no preparation of the drug should therefore be purchased to supplement the leaves. For other medicinal uses the wine may be secured if thought desirable, but the elixir and other preparations in the market are nearly inert, and some of them contain noxious elements."

REVIEWS.

Dello Emoglobinuria da Freddo. Lezioni di AUGUSTO MURRI, Professore di Clinica Medica nella R. Università di Bologna. Bologna: Tipografia Fava e Garagnani. 1880.
Hæmoglobinuria from Cold. Lectures by Professor AUGUSTO MURRI. Pp. 242.

In the clinical lectures before us the accomplished and eloquent Professor Murri, of Bologna, gives us a very important addition to our knowledge of the rare disease, known by various names, such as paroxysmal or intermittent hæmaturia, winter hæmaturia, etc., but which is likely to be known for the future by the name that Professor Murri has adopted. In these lectures the Professor gives us a series of typical cases, minutely observed, with at least one case of cure, and another wound up with a post-mortem examination. He gives a consistent theory of the nature of the malady, and a mode of treatment founded thereon, which will, no doubt, be largely tried in future in cases in which it is likely to be useful.

The *fons et origo mali* is believed to be some dyscrasia, and the Professor names two—the syphilitic, which he believes to be common; and the malarious, of which he speaks doubtingly.

On this point, let us observe, there can be no doubt of the coexistence of syphilis with hæmoglobinuria in some of Professor Murri's cases, which were largely benefited, or cured, by mercurial treatment; but we have abundant evidence before our eyes showing that the disease can be traced to a malarious origin, that it shows the agueish habit of periodicity, and is largely relieved, though not permanently removed, by quinine.

Anyhow, this presumed dyscrasia—aided, probably, by some visceral disorder, of which enlargement of the spleen is the commonest—leads to a degenerate and deformed state of the blood-globules, which are imperfect, easily running together, and breaking down. The Professor presents us with numerous drawings of deformed blood-globules.

In the next place come the characteristic symptoms of the disease, which we may call local cyanosis and psychrosis. Or, if English may be preferred to Greek, the blood-globules collect in the fingers, feet, ears, and nose, and form purple patches, attended with intense coldness of the parts so discoloured. Then the main characteristic of the disease follows, namely, the elimination of the stagnant blood-globules in a broken-down form by the kidneys. Such elimination constitutes the leading feature of the disease, but there are others. For instance, the serum of the blood seems to become tinged with the broken-down colouring matter, and thus the surface of the body and eyes acquire a yellow tint, which may be called "jaundice," but it is a jaundice compatible with a perfectly healthy liver, and does not depend on the deficient elimination of bile. On the contrary, attacks of bilious diarrhœa are amongst the common phenomena of the disease. The exciting cause of the attack is usually external cold—so commonly, in fact, that the Professor incorporates the cause with the name of the disease; but he supposes that some disorder of the vasculo-motor nervous system, which on the stimulus of cold shuts off circulation from the patches of cyanosed skin, exists. The united effect of cold and of carbonic acid is believed to cause the breaking-down of the blood-globules. Besides cold we think that some peculiar state of nervous exhaustion, over-fatigue, or worry may bring on the attack in the person subject to it, even in warm weather, and that paroxysms may occur, attended with all the local symptoms, and, in addition, with a peculiar numbness, in the height of summer.

We must draw our remarks to a close. "Who can tell us," says Professor Murri, "the life-history of a blood-globule?" The Professor's cases will assist us to comprehend their dissolution and elimination in this singular disease, which may last for years without killing the patient, although it renders him helpless and miserable. We will conclude by noting in an exceedingly abbreviated form one case which shows the good results of mercurial treatment, and the post-mortem examination of another patient, who had the hæmoglobinuria, but died of something else.

Case 1 (page 4).—Angelo B., aged fifty-eight, carman; past history good, save for several feverish attacks of an agueish character, brought on by the exercise of his calling, which exposed him much to the weather. Present illness began in November, 1872, with jaundice, which appeared from time to time until 1876, when he entered the hospital. He used to feel very cold about the lower extremities, and the urine passed at the time was of a deep red colour; he also suffered from thirst and headache, but there was no perspiration, nor any elevation of temperature.

Present Condition.—He is a sparely built man; very anæmic; skin flabby and yellowish-white. There is some enlargement of the liver and spleen, and some valvular disease and hypertrophy of the heart. The blood is pale, and through the microscope the red globules appear pale and of various sizes, with one or two white ones in the field. Examination of the urine, repeated every day, and many times each day, fully confirmed what had been said by Bertozzi: it was normal as to colour, quantity, and specific gravity and composition, as long as the patient remained in bed, but became uniformly red or black when he rose; then chemical analysis showed that albumen and the colouring matter of the blood were present, in quantity sometimes scarcely perceptible, at times medium, at times considerable. Microscopical examination of the sediment showed the presence of hyaline and granular cylinders in variable abundance, but no red globules, except very few and variable, in the form of a ring, as described by Francke. On the other hand, there were seen epithelial cellules from the renal tubules, coloured brown, and crowded with brownish molecular detritus. The reaction of the urine was always acid.

After being unsuccessfully treated for several years with tonics, douches, etc., the patient was finally treated on anti-syphilitic principles. In 1877 he was ordered to rub in blue mercurial ointment, and take internally large doses of iodide of potassium. This treatment was successful, and the patient has since passed three winters in perfect health.

Case 2 (page 8).—Isaiah G., aged forty, coffee-house keeper. At the age of thirty he had syphilis. He entered the Hospital for Skin Diseases. Gummous syphilide was diagnosed, for which he was treated and cured. His present illness began eight years ago, the symptoms appearing only in the winter. He then observed a painful coldness and numbness of legs. The feet, hands, tip of the nose, and skin of the ear at the same time assumed a bluish colour, contrasting with the rest of his skin, which was frequently jaundiced. When he became warm the skin resumed its proper colour. The skin of his ears, at the beginning of his illness, became covered with a crust, which remained during the winter, and fell off in the summer, leaving the greater part of his ears corroded on both sides. In 1873, being the fourth year of his illness, he first observed that each time he suffered from this sensation of cold his urine became dark and frothy, "like Malaga wine." As the limbs became warm, this dark colour gradually disappeared. This symptom returned with renewed force every winter for the next three years, but the end of each cold season invariably found him "cured." Exposure to cold immediately brought back the jaundice and the dark colour of the urine.

Physical examination revealed nothing important. The urine, as long as the patient remained in bed, was perfectly healthy; about 1200 cubic centimetres in twenty-four hours, specific gravity 1015, acid, salts in normal proportion, urea 20 to 23 per 1000; no deposit, no abnormal element. Immediately the patient exposed himself to cold, albumen and hæmoglobin appeared. Examination of the blood showed that the red corpuscles were of the regular form and size, rather pale; white corpuscles two to five in a field. There were many white granular cells, both free and in masses.

Treatment.—In the first year of his illness he was treated with nux vomica internally, and cold douches on the head

were tried, but without success, especially quinine and the preparations of iron. He was also allowed a liberal diet, with wine. In March, 1877, he took iodide of potassium, combined with mercurial inunction, which was persevered with for about two months. This treatment was successful in relieving certain pains in the bones. He died on September 26, 1877, the last appearance of his urinary symptoms being in the preceding February.

A post-mortem examination was made twenty-six hours after death. The brain and the thoracic and abdominal viscera show signs of general tuberculosis, the lungs and liver especially being studded with miliary tubercles. The lymphatic glands are enlarged throughout. In the abdomen they displace the aorta to the left side. Of the kidneys, the left is normal in size and position; the right is much lower, and extends two finger's breadth across the iliac bone; its shape is round, with the anterior surface flattened; the ureter arises from the inferior portion. From the aorta arise three renal arteries, the superior supplying the left kidney in the usual way, the middle and inferior being distributed to the right kidney. Upon section, the right kidney appears hyperæmic, and the cortical substance increased. The left kidney is normal save for a few tubercular granules. Upon microscopical examination, the kidneys were seen to be disseminated with tubercles. The tubules were separated by increased interstitial tissue. The epithelium lining the tubes was in some sections normal, but in others swollen and detached. In the straight tubules it was generally normal. Large collections of pigment were seen in tubes of the cortical substance—some yellow, some black.

Our readers will agree with Professor Murri in the statement that the post-mortem examination of this patient, and of another which is given in these lectures, throws no light on the nature of the disease, all that is known of it being derived from clinical observation and physiological induction.

This work speaks well for the philosophical and practical teaching in the University of Bologna.

The Surgery of the Rectum. Comprising the Lettsomian Lectures on Surgery delivered before the Medical Society of London, 1865. By HENRY SMITH, F.R.C.S., Professor of Surgery in King's College; Surgeon to King's College Hospital; late President of the Medical Society of London. Fifth Edition. London: J. and A. Churchill. 1882. Pp. 185.

THE fifth edition of a work so well known as this is, requires no special comment from us. It will be enough to say that the method of treatment of hæmorrhoids by the clamp and cautery, which Mr. Henry Smith introduced to the profession, he still employs; and the larger experience which he has had since the publication of the edition which preceded the present, has increased his preference for it. Except that it incorporates the result of more extended experience, the book is but little altered.

John Howard's Winter's Journey. By WILLIAM A. GUY, M.B. Cantab., F.R.C.P., F.R.S., etc. London: Thomas De la Rue and Co. 1882. Pp. 78.

WE notice this work, primarily, because it is the production of a distinguished member of our profession. But although its subject matter does not strictly pertain to medical science, yet we may claim Howard as one whose work resembled in object and in motive that of most medical practitioners in his day and in ours. Dr. Guy claims for Howard the first place among philanthropists. He was the first and the greatest of those who have voluntarily laboured for the good of others in the way which is denoted by the term "philanthropist," as narrowed in its meaning by the colloquial usage of the present day. We may note one mark of difference between Howard and many of the officious, though well-meaning, individuals who nowadays so constantly obtrude themselves and the claims of their self-appointed missions upon the public attention, viz., that Howard's great work was begun in the simple performance of his routine duty. He did not look for a philanthropic work to do, or make one for himself. He did the duty that came to him; and it was nothing but his desire to do this duty thoroughly that led him into the path of prison investigation and reform, which became so fruitful in results.

Dr. Guy's work is very interesting, and being not specially intended for medical men, is free from technicalities.

GENERAL CORRESPONDENCE.

THE LATE MOULAVIE TAMUZ KHAN—KHAN BAHADOOR.

LETTER FROM SIR JOSEPH FAYRER.

[To the Editor of the Medical Times and Gazette.]

SIR,—The enclosed extract from the *Hindoo Patriot* relates to a very distinguished Mahommedan physician who has recently passed away, to the deep regret of many friends, European and native, throughout India, and, I may say, the United Kingdom; for few medical officers who have retired from the Bengal Service but were acquainted with the merits, learning, or great services to medical education rendered by Moulavie Tamuz Khan—Khan Bahadoor.

His death will cause great sorrow, for he was much beloved and respected. I knew him so well, had seen so much of him, and had so many opportunities of knowing how upright, high-minded, and honourable he was in all his proceedings; how excellent as a teacher, how learned and skilled as physician and anatomist, how loyal a colleague and friend, how faithful a servant of the British Government; and with what tact and judgment he managed his classes or reconciled differences among students or others of different creeds and races; whilst at the same time he was just and true to all,—that I cannot but feel the school in Calcutta has sustained an irreparable loss; whilst I and many other of his old friends and colleagues among the former Professors of the Medical College in Calcutta grieve for the death of a much-valued friend.

I hope you will insert this brief tribute to the memory of as true a gentleman and upright a medical officer as ever served the British Government. His death occurred before a special pension—such as was recently accorded to his distinguished colleague, Rai Ram Narain Dass, Bahadoor—could be granted. I am, &c., J. FAYRER.

"After a distinguished and successful career, extending over more than one-third of a century, Moulavi Tahmiz Khan, Khan Bahadur, Assistant-Surgeon, Teacher of Medicine, Campbell Medical School, has sent in his application to Government for retirement on pension. He was one of the first and best fruits of the Calcutta Medical College. He had seen service in various parts of the country, and everywhere he served with distinction. As he himself says, 'it was his lot to work as one of the earliest Indian labourers in the field of European medicine in this country, without the sympathy of even his co-religionists, as the race to which he belongs has been unfortunately backward in receiving European enlightenment.' And the services he has rendered would do honour to any man. He has served under a succession of men, some of whom have passed into history, and every one of them speaks in the highest terms of his talents, abilities, and services. The Government has also recognised his services by conferring upon him the title of Khan Bahadur. He now prays that the Government will be pleased to grant him a special pension equivalent to his present pay."—*Hindoo Patriot*, May 23, 1881.

INFANT MORTALITY.

LETTER FROM DR. W. DOMETT-STONE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Not a great while since a poor woman was indicted for the manslaughter of her child, and was very properly, I think, acquitted. From the evidence adduced I learn that on a post-mortem examination being made it was ascertained that the death was due to exhaustion and debility resulting from the want of proper and adequate nourishment. One witness for the defence stated that the mother gave the infant "corn-flour" with a little milk every day! That the child was starved to death there is not the shadow of a doubt, but probably through ignorance from the attempt of the parent to feed it on so-called "corn-flour," which, as I have more than once pointed out, is pure starch, prepared by washing out the nutritive portion of the grain with alkalies; and therefore it is unable to supply the necessary nutriment to young children. On this point we have overwhelming evidence, as may be gathered from a paper I drew up

some time since on this very subject, containing the opinions of our leading physicians, physiologists, and analytical chemists. I will not ask you to publish all, or even extracts from them all. I may, however, take the first that comes to hand; it happens to be from the late Dr. Alfred Swaine Taylor, F.R.S., who writes as follows:—"You are quite right in your statement; 'corn-flour' is, according to my experiments, pure starch. . . . It contains no flesh-forming principles. I have just tried a sample of . . . . and find in it no gluten and no albumen. Its nutritious properties, to use a Hibernicism, depend on the milk and other nitrogenous matters associated with it. People are deceived by its forming a good jelly, but this is simply starch jelly."

After the above it is needless to encroach on your space by giving the opinions of other writers, *e.g.*, Professors Frankland, Bernays, Michael Foster, Huxley, Voelcker, Noad, and Drs. Sieveking, Farre, Priestley, King-Chambers, Edward Smith, Lankester, etc. But I may state that the late Dr. Hardwicke, Coroner for Central Middlesex, wrote:—"If you do make a report on the subject (which ought to be done), I shall have frequent opportunities of alluding to it at my inquests; for the cases of infants half-starved by being fed on 'corn-flour' are very common indeed."

In conclusion, perhaps you will allow me to observe that if mothers, instead of attempting to feed their infants on so-called "corn-flour," would give (during and after dentition), of course in addition to milk, a small quantity of one of the malted farinaceous foods now before the public—such as Savory and Moore's, Allen and Hanbury's, or Lloyd's Universal Food,—there would, I have no hesitation in stating, be a considerable diminution in our infant mortality, a point on which all authorities are agreed.

The publication of reports of such cases as the above cannot fail to teach mothers and nurses caution. Hence with truth may it be said—

> "There is some soul of goodness in things evil,
> Would men observingly distil it out."

I am, &c.,
W. Domett-Stone.

Oxford-terrace, Hyde-park, W.

The Royal University of Ireland.—Notice has been given that all applications from candidates who desire to present themselves for examination in this University during the present year must be lodged with the Secretaries, Dr. James Creed Meredith and Dr. D. B. Dunne, at the offices of the University, 25, Upper Merrion-street, Dublin, on or before August 20.

M. Pasteur's Inoculations Questioned.—M. Duclaux, Professor at the Agronomic Institute, and charged with the delivery of a course on Chemical Biology, at the Sorbonne, has devoted a chapter of his work, "Ferments et Maladies," to the consideration of M. Pasteur's inoculations. We know that M. Pasteur takes a virus, cultivates it under determinate conditions which are still kept secret, and professes to transform it into a "vaccine" virus, which, when inoculated, preserves an animal from a disease caused by this same virus when not attenuated. We are of opinion that he does nothing else than the practitioners of former times did when they inoculated small-pox, and which those of our contemporaries have so unfortunately done in inoculating syphilis, with the object of preserving from diseases that can only be taken once. Three circumstances may occur—1. The animal inoculated is not favourably disposed for the infection, the virus does not take, and there is no result; 2. The virus takes, and a slight form of the disease is produced, which preserves from an ulterior attack; 3. The virus communicates a dangerous form of the disease, and the animal dies. This last case occurs pretty often after the vaccination by the Pasteurian procedure, and perhaps not a week passes in which carcases are not received at Alfort that have had no other cause of death. There is no analogy whatever between the Jennerian vaccine virus employed for prevention against the small-pox and the *virus-vaccin* used by M. Pasteur. Never has vaccination given rise to the production of variola; and variola and vaccinia have been observed in a state of simultaneous evolution in the same individual. Never has vaccination caused death, except when the virus has been mixed with virulent pus; while this *virus-vaccin* has already killed a number of animals. What number? This should be stated in a matter of such importance.—*Revue Méd.*, July 8.

MEDICAL NEWS.

University of London.—Appended is a classified list of the successful candidates at the recent Preliminary Scientific (M.B.) Examination:—

First Division.—Charles Edward Adams, University College; Charles Frederick Manning Aithorp, private study; Wilfred Balgarnie, Yorkshire College; Jagadish Chunder Basu, B.A. Calcutta, a) Christ's College, Cambridge; Leonard Arthur Bidwell, (b) St. Thomas's Hospital; Henry John Blackler, Guy's Hospital; Charles Reginald Blakiston, King's College; Joseph Richard Brennan, c) Owens College; Ernest Henry Brock, Guy's Hospital; William Henry Brecht Brook, St. Bartholomew's Hospital; Arthur Edward Brown, a private tuition and University College; Robert Watson Cameron, B.A., Owens College; Henry Edward Leigh Canney, (c) University College; Douglas John Carnegie, a) Epsom College; Jagadish Chunder Basu, B.A. Calcutta, a) Christ's College, Cambridge; Leonard Arthur Bidwell, (b) St. Thomas's Hospital; Henry John Blackler, Guy's Hospital; Charles Reginald Blakiston, King's College; Joseph Richard Brennan, c) Owens College; Ernest Henry Brock, Guy's Hospital; William Henry Brecht Brook, St. Bartholomew's Hospital; Arthur Edward Brown, a private tuition and University College; Robert Watson Cameron, B.A., Owens College; Henry Edward Leigh Canney, (c) University College; Douglas John Carnegie, a) Epsom College; James Jackson Clarke, St. Bartholomew's Hospital; William Frederick Clarke, Guy's Hospital; Samuel Bird Cook, St. Thomas's Hospital; Alfred Edward Cox, a) St. Thomas's Hospital; Herbert Evelyn Crook, Guy's Hospital; Ernest Reuter Davies, Guy's Hospital; John Henry Dewhurst, Owens College; Frederick Edge, a) Owens College; William Henry Wilson Elliot, Guy's Hospital; Isabel Clare Evans, Mason College, Birmingham; Thomas Caspar Gilchrist, Owens College; William Norton Harper, Hoddesdon School; Hugh Paul Helsham, St. Thomas's Hospital; Cyril William Jecks, University College; Ste Antoine Maurice Joly, d. University College; Alfred William Lance, King's College; Walter Littlewood Legg, a) Yorkshire and Clifton Colleges; Isabella Macdonald Macdonald, University College and private tuition; Henry John Macevoy, a) St. Joseph's College, Clapham; William Page May, University College; Trayton Charles Pagden, St. Bartholomew's Hospital; William Permewan, University College; John Joseph Redfern, Queen's College, Belfast; Harold Kennaway Roper, Guy's Hospital; Harry Arthur Sansom, University College and St. Thomas's Hospital; Charles Frederick Seville, (a) Owens College; Edward Dickinson Shirtliff, St. Thomas's Hospital; Charles Shackleton Simpson, Guy's Hospital; Alexander Rochfort Smith, St. Bartholomew's Hospital and private study; Hugh Smith, Guy's Hospital; Ernest Solly, St. Thomas's Hospital; John Herbert Stary, (d) University of Edinburgh and University College, London; Richard John Stephens, d) King's College; James Erwin Thompson, Owens College; William Henry Tomlinson, Owens College; Frederick Sherman Toogood, Hartley Institution and University College; John Ogle Tunstall, University College; Samuel Walton Wheaton, St. Thomas's Hospital; James Atkin Wheeler, University College; Percy John Wilkinson, a) Owens College; Richard Spalding Wray, a) Yorkshire and Elmfield Colleges.

Second Division.—William Charles Anstie, University College; Henry Talbot Sidney Aveline, (d) University College, Bristol, and private study; George Henry Barker, a) University College, Bristol; Edward Henry Biddlecombe, St. Bartholomew's Hospital; Lawrence Bidwell, Guy's Hospital; Arthur Thomas Brown, Guy's Hospital; Frédéric François Burchard, Guy's Hospital; James Burns, Owens College; Arthur William Burrell, London Hospital; Weldon Cragg Carter, Owens College; Charles Hamilton Conolly, St. Bartholomew's Hospital; Henry Edward Craig, Alfred William Coryn, Charing-cross Hospital; Henry Edward Craig, Guy's Hospital; Charles Percival Croucher, St. Bartholomew's Hospital; Harold Davidson, St. Bartholomew's Hospital; Arthur Holdsworth Davis, St. Bartholomew's Hospital; Henry Percy Dean, a) University College; Leonard Richardson Talbot Dobson, St. Bartholomew's Hospital; Charles Herbert Duncan, a) Epsom College; William Bartrop Featherstone, Queen's and Mason's Colleges, Birmingham; Theodore Fisher, Guy's Hospital; Ernest Carrick Freeman, St. Thomas's Hospital; Bryan Furnivall, St. Bartholomew's Hospital; Albert Edward Godfrey, St. Thomas's Hospital; Thomas Halliwell, St. Peter's School, York, and Yorkshire College; Percy Herbert Vickers Hammersley, St. Bartholomew's Hospital; Alfred Charles Haring, (a) Owens College; Frances Harris, University College and London School of Medicine for Women; Arthur Egerton Hensley, King's College; Samuel Frederick Holloway, (d) Guy's Hospital; Arthur Hill Joseph, University College, Bristol; Alfredo Antunes Kanthack, University College, Liverpool; Edmund Delacourt Kell, b) London International College; William Henry Kelson, London Hospital; Edward Claude Kingsford, Guy's Hospital; Arthur Joseph Lang, Epsom College; Cyrus Legg, (c) Guy's Hospital; Albert Lindow, King's College; Henry Grabham Lys, private tuition; Charles Frederic Marshall, Owens College; Robert Lee Moore, Queen's College, Belfast; George Hartley O'Reilly, private study; Mary Elizabeth Pailthorpe, (a) London School of Medicine for Women; Rowland Neville Umfreville Pickering, private tuition; Samuel Esmond Prall, Guy's Hospital; John Williamson Pratt, University College of Wales and London Hospital; Ernest Bicknell Randall, University College; William Newt Risdon, Guy's Hospital; David Foulkes Roberts, c) Owens College; Arnold Scott, Guy's Hospital; David Foulkes Roberts, c) Owens College; Arnold Scott, Guy's Hospital; Bertrand Shadwell, St. Bartholomew's Hospital; Edmond Hospital; Henry Ernest Hill Smith, Fauriel Smith, a) St. Bartholomew's Hospital; St. Bartholomew's Hospital; King's College; John Anderson Smith, St. Bartholomew's Hospital; Robert Gillies Smith, a) University of Aberdeen and St. Bartholomew's Hospital; Frank Arthur Spreat, (d) St. Bartholomew's Hospital; Frederick Osmund Steedman, Charing cross Hospital; William Percy Stocks, Owens College; Frederick William Stokes, b) Mason College, Birmingham; Walter Carless Swayne, Bristol Medical School; William K. Walls, Owens College; Frank Joseph Wethered, Bristol Medical School; William Sandford Whitcombe, Epsom College; Frederic Newton Williams, St. Thomas's Hospital; Andrew Ellis Wynter, St. Bartholomew's Hospital.

University of Glasgow.—List of degrees conferred by the University during the summer session, 1882:—

Doctors of Medicine (M.D.).

Thomas Bate Adam, M.B., Scotland (recommended for thesis); Thomas Orr Guthrie, M.B., Scotland; George Halket, M.B., Scotland; Alexander

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(a) These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.
(b) These candidates have postponed their examination in Zoology.
(c) These candidates have postponed their examination in Botany.
(d) These candidates have postponed their examination in Physics.

Brodie Seton Orr, M.B., Scotland; Charles Frederick Pollock, M.B., Scotland; Guthrie Rankin, M.B., Scotland (commended for thesis); David Taylor, M.B., Scotland.

DOCTOR OF MEDICINE AND MASTER IN SURGERY (M.D. AND C.M.).
Frederick Augustus A. Smith, England.

BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B. AND C.M.).
Robert Beith, Scotland; Andrew L. Bell, Scotland; John Brown, Scotland; John Buchanan, Scotland; Dugald Campbell, Scotland; Joseph Carroll, Scotland; John Carruthers, Scotland; Fergus Carswell, Scotland; Norman M'L. Clerk, Scotland; Robt. Crawford, Scotland; David Donald, Scotland; Wm. T. Dougal, Scotland; John Dunlop, Scotland; Thomas Dunlop, Scotland; Thomas C. Dunlop, Scotland; Thomas S. Dunn, Scotland; John Fotheringham, Scotland; Alex. Galbraith, Scotland; Chas. Pinel Gallie, Jersey; David Gardner, Scotland; James Gardner, Scotland; Robt. J. Geddes, M.A., Scotland; Hugh C. Gillies, Scotland; John Goff, Scotland; Thos. J. Grime, England; George Haddow, Scotland; Fred. G. Haworth, England; John C. Henderson, Ireland; J. H. Henderson, Scotland; Isaac C. Hodgson, England; Alex. Jarvie Hood, Scotland; Robert Horn, Scotland; Wm. Howells, Wales; James Jardine, Scotland; John Johnston, Scotland; James King, England; Wm. J. Laurie, Scotland; Duncan Love, Scotland; Alex. Lowe, Scotland; John N. Marshall, Scotland; Matthew Martin, Scotland; Alexander Meiglan, Scotland; James Miller, Scotland; John M. Miller, Scotland; Richard More, Scotland; Alex. Y. Morton, Scotland; J. D. Macdonald, Scotland; Thomas F. Macdonald, Scotland; John Macintyre, Scotland; John Y. MacKay, Scotland; Peter M'Lean, Scotland; Norman M. MacLehose, Scotland; Herbert A. Macleod, India; John Macmillan, Scotland; James M'Nish, Scotland; John F. M'Phun, Scotland; James Oastler, Scotland; Wm. Patullo, Scotland; Andrew M. Ramsay, Scotland; James S. Rennie, Scotland; Wm. T. Robinson, England; Anundo L. Sandel, India; Andrew Semple, Scotland; John P. Simpson, Scotland; Dugald Sinclair, Scotland; John Sinclair, Scotland; Patrick A. Smith, Scotland; Joseph T. Teunent, Scotland; R. S. Thomson, B.Sc., England; Andrew D. Turner, Samoa; Wm. Waddell, Scotland; Henry P. Webb, England; James L. Wilson, Scotland; William M. Wilson, Scotland; John Wylie, Scotland.

The following gentlemen were named as entitled to honours, to high commendation, and to commendation, on account of distinguished merit at the various examinations for the degrees of M.B. and C.M.:—

Honours.—Robert Beith. Mr. Beith gained the Brunton Memorial Prize, awarded to the most distinguished graduate in Medicine of the year (1882).

High Commendation.—Duncan Love and Robert S. Thomson, B.Sc.

Commendation.—Andrew L. Bell, Fergus Carswell, Wm. T. Dougal, Robert J. Geddes, M.A., John N. Marshall, John Macintyre, John Y. Mackay, John MacMillan, James Oastler, William Pattullo, Andrew M. Ramsay, Henry P. Webb.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on July 27:—

Grabham, George Wallington, M.D. Lond., Earlswood.
Herringham, Wilmot P., M.B. Oxon., St. Bartholomew's Hospital, E.C.
Jessop, Charles Moore, 17, Whitehall-place, S.W.
Jones, Arthur Henry, M.D. Lond., Northampton.
Maclagan, Thomas John, M.D. Edin., 9, Cadogan-place, S.W.
Richardson, Gilbert, M.D. Dub., 10, Roland-gardens, S.W.
South, Arnand Jules McConnel, M.B. Lond., 8, Upper Montagu-street, W.
Shaw, John, M.D. Lond., Willoughby-road, N.W.

The following gentlemen were admitted Fellows on the same day:—

Blanc, Henry, M.D. Montpellier, Bombay.
Grant, James Alexander, M.D. Montreal, Ottawa.

The following gentlemen were admitted Licentiates also on the same day:—

Alpin, William George Patrick, 81, Commercial-street, E.
Bamford, Charles Robert, Uttoxeter.
Banatvala, Hormasjee Edaljee, 28, Endsleigh-gardens, N.W.
Bass, Frederick, 20, Union-road, N.
Bertram, Benjamin, 25, Montague-street, W.C.
Blatherwick, Henry, Rochester.
Buckell, William Robert, Romsey.
Cameron, John, Bilston.
Challinor, Cedric, 28, Reedworth-street, S.E.
Chown, Henry Havelock, M.D., Kingston, 19, Great Coram street, W.C.
Collyns, Robert John, Middle Mall, W.
Cooper, Walter, South Hill, Park-road, Croydon.
Cox, Roland Frederic, 21, Ryder-terrace, Twickenham.
Day, John Roberson, 121, Camden-road, N.W.
Dendy, Walter Chester, Guy's Hospital, S.E.
Downing, Charles, Falmouth.
Durant, Robert James Anderson, St. Thomas's Hospital, S.E.
Evans, Thomas Jones, 18, Edward-street, N.W.
Frost, George, 53, Bedford-square, W.C.
Greaves, Thomas, M.D. New York, 21, Regent-square, W.C.
Hoskyn, Donald Templeton, Isleworth.
McMillan, John Furse, Middlesex Hospital, W.
Marston, Francis Ernest, Ludlow.
Pocock, Alfred George Clarke, 337, Brixton-road, S.W.
Pritchard, Samuel Evan, Tower Hamlets Dispensary, Stepney, E.
Reynolds, James Jones, Stoke-by-Clare.
Robinson, Wilford Vidal, Saffron Walden.
Strachan, William Henry Williams, Guy's Hospital, S.E.
Tait, Henry Brewer, 54, Highbury-park, N.
Thornton, Hastwell William M.D. Metill, 4, Nicholas-street, E.
Todd, Charles Edward, 8, Sussex-gardens, W.
Toller, Charles William Edward, St. Bartholomew's Hospital, E.C.
Viney, Josiah Ernest, M.B. Cantab., Fernwood, Highgate, N.
Wightwick, Fallon Perey, Folkestone.
Williams, Evan, 27, St. Paul's-crescent, N.W.
Zimmermann, Benjamin Frazier, Ealing, W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 27th ult., viz.:—

Dawson, George H., Moor Allerton.
Dixon, Henry C., Putney.
Downman, Charles F., Castle-hill, W.
Dutton, William H., M.B. Edin., Edinburgh.
Fiaume, Charles E., L.S.A., Guernsey.
Hilbert, Henry, Sevenoaks.
Lynam, Robert G., L.S.A., Stoke-on-Trent.
Northcott, Arthur, L.S.A., Fulham.
Perez, George V., L.S.A., Teneriffe.
Williams, John A., M.B. Aberd., Enfield.
Wise, Charles H., L.S.A., Launceston.

Three candidates were approved in Surgery, and eleven were rejected. The following gentlemen passed on the 28th ult., viz.:—

Beattie, Robert, M.D., Queen's Univ. Ire., Ballymena.
Berry, John B., L.S.A., Barna, Galway.
Bostock, John, L.S.A., Osgathorpe, Leicester.
Harris, Walter T., L.S.A., Ipplepen, Devon.
Hosland, Stanley S., L.S.A., Rotherham.
Leadbeater, Thomas E., L.S.A., Bromley-by-Bow.
Morse, Thomas R., L.S.A., Cheltenham.
Pollard, George S., South Walsham.
Rogers, Thomas E., L.S.A., Bickerton, Devon.
Salmon, Arthur G., L.S.A., Truro.

Six gentlemen passed in Surgery, and eight candidates were rejected. The following gentlemen passed on the 31st ult., viz.:—

Beevor, Hugh R., L.S.A., Hingham, Norfolk.
Bott, Joseph, L.S.A., Dunmow, Essex.
Cox, R. Frederic, L.R.C.P. Lond., Twickenham.
Durant, Robert J. A., L.R.C.P. Lond., Benzal.
Howard, Robert J. B., M.D. McGill, Montreal.
Hudson, Ernest, L.S.A., Harleston, Norfolk.
Lovegrove, Thos. E., L.S.A., Wollaton, Nottingham.
Roe, Arthur D., B.A. and M.B. Cantab., Eccles.
Tate, Alan E., L.S.A., Trent, Somerset.
Voss, Francis H. V., L.S.A., Clapton-square.
Williams, Evan, L.R.C.P. Lond., Bala.

Seven gentlemen passed in Surgery, and nine were rejected. The following gentlemen passed on the 1st inst., viz.:—

Finch, Thomas, M.B. Cantab., Torquay, of St. Bartholomew's Hospital.
Jones, Owen C., L.S.A., Philpot-street, E.
Thomas, John H., L.S.A., Tenby, of the London Hospital.

Out of the 280 candidates examined, 118 failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their professional studies for six months; and thirty-eight gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 27:—

Grigg, William Henry, Torrington, Devon.
Hulesberg, John Wild, Gipsy-hill, Upper Norwood.
Power, Charles Frederick, Bexhill, Hastings.
Roberts, Thomas Pritchard, Twyford, near Winchester.
Watson, Robert Walker, 22, Highbury New-park.
Watson, William, High-street, Rochester.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Carrington, William Henry, Guy's Hospital.
Maddison, Charles John, Middlesex Hospital.
Pauli, William Kirman, Charing-cross Hospital.

BIRTHS.

BADCOCK.—On July 25, at 38, Buckingham-place, Brighton, the wife of Lewis Carter Badcock, M.D., of a son.

EUSTACE.—On July 30, at Lowestoft, the wife of Surgeon-Major Edward Eustace, Army Medical Department, of a daughter.

GEYZEL.—On June 24, at Bangalore, India, the wife of Surgeon J. L. Van Geyzel, Indian Medical Department, of a daughter.

INGLEDEW.—On July 30, at 17, New-road, Woolwich, the wife of George Ingledew, M.R.C.S., of a son.

LAST-SMITH.—On July 27, at Mayfield, Torquay, the wife of Edward Last-Smith, L.R.C.P., L.R.C.S., of a daughter.

NICHOLLS.—On July 9, at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a son.

MARRIAGES.

BESSINGSALE—SMITH.—On July 26, at Lancaster-gate, Daniel Loftus Bessingsale, M.D., of Sydney House, Bedford Park, Chiswick, second son of J. E. Bessingsale, F.R.C.S., J.P., to Amy Florence, adopted daughter of the late George Smith, Esq., of Belmouth House, Ryde.

COLEMAN—MITCHELL.—On July 27, at Birmbury New-park, Charles Alfred Coleman, M.D., of Hill View, Streatham Common, to Jessie Mitchell, daughter of the late Thomas Mitchell, Esq., of Halifax, Nova Scotia.

GARDNER—RYDING.—On July 27, at Neath, Alfred Sidney, youngest son of Sankey Gardner, Esq., of The Hajod, Aberavenny, to Emily Mary, eldest daughter of George Ryding, M.D.

GREEN—BLAKISTON.—On July 29, at Rugby, George Richard Green, M.R.C.S., L.R.C.P., of Inkberrow, near Redditch, to Maude Douglas, daughter of J. R. Blakiston, M.A., H.M. Inspector of Schools.

PEEBLES—RYDING.—On July 27, at Neath, Henry Alder, third son of the late Rev. Henry Peebles, formerly rector of Sunderland and Hon. Canon of Durham, solicitor, of Berwick-on-Tweed, to Hester Barfoot, second daughter of George Ryding, M.D., of Neath.

DEATHS.

ELLIOTT, CHARLES, M.R.C.S., of Denmark Villa, Weston-super-Mare, at Wylde Green, Erdington, near Birmingham, on July 21, aged 78.

HOPKINS, ALFRED BOYD, M.R.C.S., at 88, Highbury New-park, N., on August 1, aged 48.

HUNT, WILLIAM, M.R.C.S., at 1, St. Mary's-square, Kennington, on July 23, aged 56.

MALE, HENRY D., M.D., L.R.C.P., of 2, Victoria-park-square, London, at Peel House, Yeovil, on July 28, aged 34.

PAYNE, EDITH, wife of H. P. Payne, L.R.C.P., M.R.C.S., J.P., at Southend-on-Sea, on July 18, in her 36th year.

PEPLOW, JOSEPH, M.D., L.R.C.P., at Lower Tooting, Surrey, on July 27 aged 76.

SMITH, WILLIAM, M.R.C.S., at the Paddington Provident Dispensary, 104, Star-street, Edgware-road, on July 31, aged 71.

WOODWARD, EDWIN, L.R.C.P., at King's Lynn, on July 25, in his 48th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer and Dispenser. Salary £120 per annum. Candidates must be duly qualified. Applications, stating age, whether single or married, together with recent testimonials, to be sent to the Secretary, D. J. Sloane, 80, Arcadia-street, Manningham, Bradford, Yorks, on or before August 10.

DUDLEY DISPENSARY.—Resident Medical Officer. *(For particulars see Advertisement.*

EARLSWOOD ASYLUM FOR IDIOTS, REDHILL, SURREY.—Medical Superintendent. *(For particulars see Advertisement.)*

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. *(For particulars see Advertisement.)*

LEEK PROVIDENT DISPENSARY SOCIETY.—Medical Practitioner. *(For particulars see Advertisement.)*

NATIONAL DENTAL HOSPITAL, GREAT PORTLAND-STREET, W.—Assistant Dental Surgeon. Candidates must possess the degree of Licentiate of Dental Surgery. Applications to be sent to the Secretary on or before August 22.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-UPON-TRENT.—House-Physician. *(For particulars see Advertisement.)*

ROYAL ISLE OF WIGHT INFIRMARY, RYDE.—House-Surgeon and Secretary. Salary £50 per annum, with board, lodging, and washing. Candidates must be registered according to the Medical Act, possess a surgical diploma, and be unmarried. Applications, with testimonials, to be sent in before August 8.

TUNBRIDGE WELLS DISPENSARY AND INFIRMARY.—Resident House-Surgeon. Salary £100 per annum, with board, furnished apartments in the Infirmary, and attendance. Candidates must be Members of the Royal College of Surgeons, London, Edinburgh, or Dublin, and Licentiates of the Royal College of Physicians, London, or of the London Company of Apothecaries, or graduates in medicine of a British or Irish University; they will be prohibited from engaging in private practice, and they must be unmarried. Applications, with proof of qualifications, to be sent to the Secretary at the Infirmary, on or before August 9. The election will take place on August 16.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. *(For particulars see Advertisement.)*

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary £100 per annum, with furnished rooms, coal, gas, and attendance (without board). Candidates must at least possess one qualification. They will be required to enter into the usual bond not to practise. Applications, enclosing testimonials, etc., to be addressed to the Secretary on or before August 8.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Hayfield Union.—The First District is vacant by the death of Dr. T. Moffat; area 13,110; population 9779; salary £45 per annum.

Pickering Union.—Mr. Francis William Smailes has resigned the Pickering District and the Workhouse; area unknown; population 6221; salary £40. Salary for Workhouse £20 per annum.

Whitehaven Union.—Dr. Samuel Drew has resigned the First District and the Workhouse; area 14,882; population 18,294; salary £35 per annum. Salary for Workhouse £30 per annum.

APPOINTMENTS.

Frome Union.—Frederick Edward Pearse, M.D. St. And., M.R.C.P. Edin., M.R.C.S. Lond., to the First District.

Hackney Union.—John Cornelius Gartland, L.R.C.P., L.R.C.S., and L.M. Edin., L.S.A., to the Infirmary.

Scarborough Union.—Hugh Orr, L.A.H.D., L.R.C.P.E., L.R.C.S.E., to the Filey District.

Settle Union.—John Anthony, L.R.C.P. Edin., L.F.P.& S. Glasg., to the Arncliffe District.

Stoke Damerel Parish.—John Bestarick Rolston, M.R.C.S. Eng., L.R.C.P. and L.M. Edin., to the Morice and St. Aubyn District.

MEDICAL CHARITIES.—At the last meeting for the present session of the Court of Common Council of the City of London, the Right Hon. the Lord Mayor in the chair, it was resolved, on the recommendation of the Finance Committee, to present 100 guineas to the British Home for Incurables, a like sum to Miss Mary Wardell's Scarlet Fever Convalescent Hospital, and 50 guineas to the Tower Hamlets Dispensary.

CHELSEA HOSPITAL FOR WOMEN.—Dr. Robert Barnes has been elected one of the Honorary Consulting Physicians to the Chelsea Hospital for Women, which will be removed to the new building in the Fulham-road in the early part of next year.

THE APOTHECARIES' HALL OF IRELAND.—At the annual meeting of the General Council of the Apothecaries' Hall of Ireland, convened by authority of the statute of incorporation on Tuesday, August 1, the following members were elected office-bearers for the ensuing year:—*Governor:* Thomas Collins, Esq. *Deputy Governor:* Robert Montgomery, Esq. *Court of Directors and Examiners:* Edward H. Bolland, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Richard G. O'Flaherty, Edward J. O'Neill, Sir George B. Owens, John Ryan, James Shaw, George Wyse, Esqs. *Representative on the General Medical Council:* Thomas Collins, Esq.

HYPODERMIC INJECTIONS IN SYPHILIS.—Dr. Shoemaker, of Philadelphia, read a paper on this subject at the American Medical Association (*Boston Med. Journal*, June 29), in which he stated that he selected in preference a good glass syringe, as he had found this to be the one best adapted. To this he had affixed especially long needles, and if these are driven down to the cellular tissue no ill effects will follow their use—the shorter ones, by not penetrating deeply enough, endangering abscess. He also used different needles in different cases to prevent contagion. After using all kinds of combinations, he had come to the conclusion that the best injection was formed by the sublimate and water. He begins in weak patients with one-eighth grain doses (ten minims), and continues the same daily until the patient experiences relief or shows the constitutional effects of the drug. He prefers the infra-scapular and sacral regions, which are the least sensitive, and are supplied with a large quantity of subcutaneous cellular tissue. He fills the syringe, and with the needle pointed, open, and well oiled, picking up a fold of integument, he drives the needle (having previously everted the syringe, rapping it slightly, and forcing out the air) down deep into the tissue, while gently pressing the piston to force out the contents. The skin surrounding the puncture becomes a little red and swollen in a short time, this disappearing at longer or shorter intervals—at most in a few days' time; but in some cases it remains for a time, forming hard spots, which eventually disappear by degrees, leaving no bad results. In Dr. Shoemaker's 113 cases there were neither inflammation nor abscesses. He believes this to be the most certain and speedy way of eradicating syphilis, and preventing at the same time a loss of flesh and vigour of the body which follows giving mercury and iodide of potassium internally. He believes that when the hypodermic method fails, it does so entirely from the carelessness of the operator.

EXPEDITING LABOUR.—Dr. Jervis, writing to the *New York Medical Record*, June 24, states that he has left off administering ergot in delayed labour from insufficient uterine action, on account of the frequency with which it induces nausea and vomiting. He has since found that uterine action may be very effectually induced in imitating the pressure produced by the child's head, by introducing at least a part of the hand during a pain, distending the vagina, and making firm pressure outwards against the perineum. This seldom fails not only to increase the contractions of the uterus, but will bring on a strong expulsive effort. In the delivery of the placenta, too, where it does not come down sufficiently to be grasped by the hand, it may also be hastened by gently distending the vagina. In moderate hæmorrhage, contractions might probably be brought on by the same means.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 29, 1882.

BIRTHS.

Births of Boys, 1357; Girls, 1220; Total, 2577.
Corrected weekly average in the 10 years 1872-81, 2598·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	716	683	1399
Weekly average of the ten years 1872-81, corrected to increased population ...	941·8	854·1	1795·9
Deaths of people aged 80 and upwards			33

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	7	3	...	9	...	...	1	10
North ...	905947	1	1	11	4	20	...	1	...	21
Central ...	928238	...	5	3	...	1	1	2	...	11
East	692738	...	10	16	1	12	...	2	...	20
South	1265927	1	17	14	4	21	...	11	1	46
Total	3816483	2	40	47	9	63	1	16	2	108

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ... 29·909 in.
Mean temperature ... ... 60·2°
Highest point of thermometer ... ... 78·2°
Lowest point of thermometer ... ... 48·0°
Mean dew-point temperature ... ... 52·8°
General direction of wind ... ... S.W.
Whole amount of rain in the week ... ... 0·37 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, July 29, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending July 29.	Deaths Registered during the week ending July 29.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2577	1398	18·8	78·2	48·0	60·2	15·67	0·37	0·94
Brighton	106595	57	39	15·6	73·6	50·4	60·0	15·56	0·57	1·45
Portsmouth	129916	79	33	13·3	...	...	...	...	...	...
Norwich	88821	57	31	18·2	...	...	...	...	...	...
Plymouth	74449	48	19	13·3	71·0	46·3	57·7	14·28	0·74	1·88
Bristol	210134	106	65	16·1	72·4	45·5	57·2	14·00	0·43	1·09
Wolverhampton ...	76756	61	23	15·6	73·8	46·8	56·9	13·83	0·68	1·73
Birmingham ...	408532	261	136	17·4	...	...	...	...	...	...
Leicester	126275	89	61	25·2	72·0	47·0	58·2	14·55	0·40	1·02
Nottingham ...	193573	152	84	22·6	75·8	44·6	58·8	14·89	0·46	1·17
Derby	83587	55	27	16·9	...	...	...	...	...	...
Birkenhead ...	86582	59	36	21·7	...	...	...	...	...	...
Liverpool	560377	395	255	23·7	66·9	48·9	56·5	13·61	1·08	2·74
Bolton	106767	73	40	19·6	70·6	45·9	54·8	12·67	1·28	3·25
Manchester ...	342211	222	118	18·1	...	...	...	...	...	...
Salford	184604	148	70	19·3	...	...	...	...	...	...
Oldham	115572	67	42	19·0	...	...	...	...	...	...
Blackburn	106460	75	48	23·6	...	...	...	...	...	...
Preston	97656	66	45	24·0	...	...	...	...	...	...
Huddersfield ...	83418	44	41	25·6	...	...	...	...	...	...
Halifax	74713	44	28	19·6	...	...	...	...	...	...
Bradford	200158	118	58	15·1	71·3	46·0	56·5	13·61	0·95	2·41
Leeds	315998	216	134	22·1	72·0	45·2	57·1	13·95	0·63	1·60
Sheffield	291546	204	120	21·6	72·0	45·0	57·3	14·06	0·49	1·24
Hull	155814	99	67	22·0	76·0	38·0	55·5	14·72	0·55	1·40
Sunderland ...	119065	103	66	28·9	76·0	48·0	58·4	14·66	0·79	2·01
Newcastle	147626	112	69	24·4	...	...	...	...	...	...
Cardiff	88724	68	22	13·2	...	...	...	...	...	...
For 28 towns ...	8469571	5652	3176	19·6	78·2	38·0	57·7	14·28	0·67	1·70
Edinburgh	232440	148	77	17·3	64·7	48·4	56·2	13·44	0·68	1·73
Glasgow	514048	372	245	24·9	67·0	44·5	57·0	13·83	1·46	3·71
Dublin	348293	172	139	20·8	68·6	43·1	57·3	14·06	1·04	2·64

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·91 in. The lowest reading was 29·43 in. at noon on Sunday, and the highest 30·28 in. on Thursday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

F. A. C., Sussex.—1. Yes. 2. Until the end of 1874 it was optional with medical practitioners to furnish a certificate of the cause of death of a patient in order that its contents might be inserted in the death register; but the Births and Deaths Registration Act of 1874, which came into operation on January 1, 1875, made it compulsory upon registered practitioners to furnish such certificate.

The Heat and Mortality in New York.—Advices report that intense heat pervades this city, and the deaths average one thousand weekly, the greatest mortality recorded, being especially high among children.

Infringement of the Factory Act by a Town Councillor.—A manufacturer and town councillor, working the North Moor Mill at Oldham, has been fined £19 7s. for a breach of the Factory Act. The factory inspector told the police magistrate that the law had been systematically violated by the defendant's mill for six months, which led workpeople at other mills to declare it was not fair to have a mill working in this way while others were stopped. The practice, he added, was prevalent, and he was determined to put it down.

Sanitary Works and Improvements.—An inquiry at Rugby has been held by a Local Government Board Inspector, for sanction to borrow £5720 for surface drainage works, street improvements, sewerage, and water-supply. There was no opposition to the scheme.——The Town Council of Halifax are about to erect abattoirs in the Bowling Green-square and Market-street.——The "Bushell" testimonial fountain at Neston, Cheshire, has been inaugurated.——The Corporation of Gloucester have ordered plans to be prepared for obtaining an increased supply of water at the Witcomb reservoirs.——The Town Council of Wolverhampton have decided to erect a sanitary depôt in Fox's-lane.——A floating swimming-bath is in course of completion at Kingston-on-Thames, built for the Corporation of Kingston. It is placed opposite the "Anglers," and on the Surrey side of the river. The cost is about £1000.——The Local Board of Warminster are considering competitive plans for the supply of water to the town.——The Town Council of Helston have before them a scheme for the drainage of the town, which is at present very imperfect. The estimated cost is £2500.——The Town Commissioners of Hove are about to carry out a scheme for flushing the sewers of the district, at an expenditure of about £900. It is also proposed to provide a contagious diseases hospital at Hangleton Bush, at an outlay of £6000.——A convalescent home for the West of England has just been opened at Weston-super-Mare. It contains one hundred beds, and has cost upwards of £11,000.

Longevity.—It is just announced in a local paper that Miss Sarah Hadley, of Walsall, died last week at the great age of 103 years.

The Qualification of Female Guardians.—The question as to whether marriage disqualifies a woman after her election from continuing to act as a guardian has been submitted by the Islington Board of Guardians to the Local Government Board; and the law officers of the Crown, to whom the matter was referred by the Board, are of opinion that the husband, and not the wife, is to be regarded as the rateable occupier of the premises they occupy, and that as his wife is not rated to the poor-rate she is not qualified to fill the office of guardian. The question who is the occupier of the house—the occupier being the person to be rated—they consider to be quite distinct from the question of ownership, and they think that where a husband and wife are living together, though in a house which is the separate property of the wife, the husband is in point of law the occupier.

S. E. W.—The Port of London Sanitary Committee, in accordance with the wish of the Treasury and Custom House authorities, now supervise all shipping from shore to shore—the Essex and Kent sides—below Gravesend, which has hitherto been the limit of their riparian authority.

A Good Suggestion.—The Works and Sanitary Committee of Kensington recommend—a recommendation which the Vestry has confirmed—that the water companies should be requested, if they were not required by law, to give the Vestry notice in every case when they have cut off the supply of water from inhabited premises, from whatever cause.

A Sanitary Parochial Experiment.—The Works Committee of the Clerkenwell Vestry report on the work and results of their staff performing the scavenging, watering, etc., of the parish during the past year. The total cost was £5460 16s. 10d., the receipts £1294 1s. 5d., reducing that amount to £4165 9s. 5d., the net expenditure for the year, which was £220 only above the average of the previous six years. But the Committee remark that this small increased expenditure was more than compensated by the much greater efficiency with which the work was done.

Midwifery Cases in the City of London Union.—The Board of Guardians have decided that for the future all midwifery cases shall be attended to by the medical officers, at a fee to be arranged by the Clerk and reported to the Board. It was stated that in the course of a year the midwives only attended sixteen or twenty cases.

Whitby.—Dr. Taylorson, Medical Officer of Health for the Whitby District Local Board, reports that the deaths during the last quarter were sixty-two. By a singular coincidence the number is precisely the same as that of the corresponding quarter of last year. The death-rate was 17·4. There had been only one case of zymotic disease, and that was a child three years old.

Temperance Items.—On opening waterworks at Kilcreggan, Argyllshire, the Duke of Argyll said that gentlemen had rented land from him, and built splendid mansions thereon, on the understanding that there were to be no whisky shops. Although he could get any amount for land for whisky shops, he would keep faith with those who had rented land from him on condition that they were to be freed from the annoyance of whisky shops in their midst.——At Iowa, by a majority of 20,000, the inhabitants have ratified a constitutional amendment, declaring that no person shall manufacture for sale, sell, or keep for sale as a beverage any intoxicating liquors whatever.——The Commissioners of Customs report that the continued falling-off in the consumption of wine and spirits is becoming a question of grave importance in reference to the future prospects of the revenue.

Patients and Doctors.—Brown says that patients do more for doctors than doctors can do for patients. The patients enable the doctors to live.

Pyrotechnic Displays and their Dangers.—The evidence adduced at an inquest held on the body of a gentleman, of The Avenue, Tottenham, demonstrates a new source of public danger. The deceased went to see a display of fireworks at the Alexandra Palace, Muswell-hill, and during the pyrotechnic exhibition was suddenly struck on the head by a piece of iron, and his skull seriously fractured. The piece of iron weighed eleven pounds, and was, it seems, part of the base of a mortar which had been fired with an ordinary charge. It is now supposed there must have been a flaw in the mortar of which nothing was known, as no examination of it had been made previous to the discharge.

Vacant Coronership.—Mr. Charles C. Lewis, the Coroner for South Essex, died on the 26th ult. at his residence at Brentwood, at the age of seventy-four years. He had held the office for nearly fifty years.

Coffee, its Increased Growth and Consumption.—Upon this question the following figures are very striking:—Twenty-five years ago the quantity of coffee grown was estimated at 338,000 tons, but in 1873 the total quantity was 540,000 tons; the increase from 1878 to 1879 alone having been over 126,000 tons. The consumption is greatest in the United States, the mean average, which for the twenty years ending 1876 was 105,000 tons, having risen for the last two years to 180,000 tons.

Opposing the Local Government Board.—A lively discussion took place at the last meeting of the St. Asaph Guardians with reference to the Local Government Board's proposal to appoint a medical officer for a large united district, at a salary of £600 to £900 a year, to take the place of the local medical officer. No fault had been found with the present medical officer. Mr. Murray Brown, Local Government Board Inspector, attended, and argued in favour of the proposal. The Vice-Chairman moved a negative motion, which was supported; the argument being that an engineer was required, and not a doctor, and that "people's noses in the country were as capable of detecting nuisances as anyone sent from London." The principal opposition to the scheme was the extra expense which would be incurred. Mr. M Brown eventually said he had done his duty in bringing the subject forward again, and should an epidemic break out the burden would not rest on his shoulders, so far as the benefits of this scheme might have prevented it. The proposal was consequently negatived.

Alcohol and Yellow Fever.—A physician says, Alcohol has killed more people than yellow fever. Well, doctor, more people have taken it!

Military Sanitary Primer.—The Indian Government's offer of a prize of £100 for the best manual of hygiene for soldiers did not produce any work that was regarded as suitable, and the prize was therefore not awarded. Thirty-seven manuals were submitted for examination by the committee appointed to adjudicate the prize, and the committee report that no one of them is in all respects suitable for the purpose for which a manual is required, as prescribed in the notification offering the prize.

Early Closing of Shops.—The efforts to shorten the hours of work of persons employed in shops are deservedly commendable, and it is satisfactory to observe that quite recently a great increase has taken place in the number of these establishments which now close one evening in each week at five o'clock. Nearly the whole of the East-end drapers have adopted this arrangement, and the Early Closing Association is actively engaged in promoting its extension amongst various trades in the Eastern, South-Western, and Northern districts of London.

Death caused by a Grain of Indian Corn.—Mr. Price, the Manchester District Coroner, held an inquest at the Children's Hospital, Pendlebury, on the body of a girl four years and three months old. The deceased swallowed a grain of Indian corn, which stuck in her throat, and produced symptoms of suffocation. Medical advice was obtained, and ultimately the child was taken to the Children's Hospital, where it died. A post-mortem examination revealed the fact that a grain of corn about half an inch long was sticking in the larynx—verdict, "Accidental death."

Breweries at a Discount.—At Bradford, a brewery, which ten years ago was valued at £135,000, was a few days since sold for £40,000. It is reported that brewers in that town have had in some cases to put tenants in their licensed houses just to sell what they can, without any stipulation as to rent.

COMMUNICATIONS have been received from—

Mr. J. S. Wood, London; Dr. Money, London; The Registrar of the Royal College of Physicians, London; The Registrar of the Apothecaries' Hall, London; Sir J. Fayrer, London; Mr. F. H. Bartlett, Birmingham; The Sub-Librarian of the Obstetrical Society of London; Mr. J. Chatto, London; Mr. T. M. Stone, London; Dr. Alexis Herbert, Brussels; Mr. M. D. Makuna, London; Mr. F. Johnson, St. Leonards-on-Sea; The Registrar-General for Scotland; Professor F. de Chaumont, Netley; Dr. J. W. Moore, Dublin; The Local Government Board, London; Dr. Norman Chevers, London; Professor M'Kendrick, Glasgow; The Secretary of the Army Medical School, Netley; The Secretary of the Apothecaries' Hall of Ireland, Dublin; The Secretary of the Royal College of Surgeons of Edinburgh.

BOOKS, ETC., RECEIVED—

Quatrième Congrès International d'Hygiène et de Démographie a Genève du 4 au 9 Septembre, 1882—Description d'un Nouvel Appareil Instrumental pour la Cystotomie Périnéale, par le Docteur R. Loreta—Pestilentia in Nummis, von Dr. L. Pfeiffer und C. Ruland—The Origin and Future of Hospital Saturday, by Sampson Gamgee, F.R.S.E.—Report on the Health, etc., of the Borough of Birmingham for the Quarter ending July 1, 1882—Metropolitan Asylums Board Report of the Deptford Hospital for 1881—Therapeutical Remembrancer, by J. Mayne, M.D.—Laws relating to Medical Men, by James Greenwood—Transactions of the Massachusetts Medico-Legal Society—Metropolitan Asylums Board Report of the Fulham Hospital for 1881—History of the Insane in the British Isles, by D. H. Tuke, M.D.—Der Moderne Kaiserschnitt, von Dr. P. Müller—Metropolitan Asylums District Reports of the Stockwell Fever and Small-pox Hospitals for 1881—Annual Report of the Home for Inebriates, Fort Hamilton, N.Y., for 1881—Fat Embolism, by Robert Saundby, M.D., and Gilbert Barling, M.B., F.R.C.S.—Report on the Health, etc., of Kensington from June 18 to July 15, 1882.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazzetta Medicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynäkologie—Le Concours Médical—Gazzetta degli Ospitali—National Board of Health Bulletin, Washington—Centralblatt für die Medicinischen Wissenschaften—Field Naturalist and Scientific Student—Detroit Lancet—Monthly Homœopathic Review—National Anti-Compulsory Vaccination Reporter—Maryland Medical Journal—Philadelphia Medical Times—Ophthalmic Review—Archives Générales de Médecine—Birmingham Medical Review—Medical News—Edinburgh Medical Journal—Veterinarian—Medical Chronicle—Ciencias Medicas—Revue Mensuelle de Laryngologie, etc.—Glasgow Medical Journal.

APPOINTMENTS FOR THE WEEK.

August 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

7. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

8. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

9. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

10. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

11. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

The Library of the Obstetrical Society of London will be closed from August 14 to September 14.

FIFTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,

HELD IN WORCESTER, AUGUST 8, 9, 10, AND 11, 1882.

PRESIDENT'S ADDRESS.

By WILLIAM STRANGE, M.D.,
Senior Physician to the Worcester Infirmary;
Honorary Physician to the City and County Orphan Asylum, and the County Prison;
Honorary Consulting Physician to the Worcester Dispensary;
Medical Officer of Health to the Worcester Rural and Urban Districts.

GENTLEMEN, FELLOW-MEMBERS OF THE BRITISH MEDICAL ASSOCIATION,—My first duty, on assuming the honourable and distinguished position to which the kind favour of my medical friends and neighbours, and the courteous custom of our Association, have called me, is to give you all, in the name and on behalf of every member of the profession in this city and of our local Branch, as well as of numerous other brethren residing in the West Midland district, the most hearty welcome that words can convey. A welcome to Worcester, which we are accustomed to call "*Civitas in bello et in pace semper fidelis.*" And faithful too, I trust, she will always be found to the traditions and the welfare of that great Association which first saw the light within her walls.

Gentlemen, the city in which we are met is but a small one compared with many of those in which you have held meetings in former years. I trust that you will not assume that the welcome you will meet with in Worcester will be commensurate only with its circumscribed limits and somewhat scanty means of accommodation; rather consider it, I pray you, in the light of the relationship which subsists between it and you, which, with scarcely a metaphor, may be called that of parent and child.

The return, after many years, to the place of our birth, or to the scenes of our childhood, must always be a matter of interest; sometimes, indeed, of sad and sorrowful interest. Some of you may, perhaps, be experiencing something of this feeling now. You, the seniors of our Society, who, perhaps, in long past years, have sat in this very room alongside the fathers of our Association, now gone to their rest, you cannot help but feel regret to see their places now filled by others; and especially must you regret that this chair is not now to be taken by him who not only filled the chair, but the whole meeting, with his spirit three-and-thirty years ago.

But there is, surely, sometimes a pleasure in returning to our old home. As, when battered about by the world, and evil entreated of it, it may be, or evil spoken of, we return and find the paternal arms still open to receive us, the maternal board spread ready to welcome us, all our errors and wanderings condoned or forgiven. Something akin to this feeling also may be present to some of your minds to-night.

But whatever our feelings, be they sad at the loss, or joyful at the recovery, of old friends, or simply pleasurable at the prospect of making new acquaintances, let us rejoice in remembering that this is our jubilee; the day when of old, you know, all estrangements and divisions were forgotten, the bond allowed to go free, and when fresh help and a fresh start in life were never denied to the unfortunate or the unsuccessful.

As for us, here in Worcester, to receive this great assemblage within our walls; to witness the full fruition of the efforts made here fifty years ago for the elevation of our profession and the perfecting of its power, by the force of combination—this is our privilege and our glory to-day. May the spirit which animated our forefathers be with us now, and may we be found worthy to follow in their steps.

In the second place, I have to offer you my most heartfelt thanks for the honour you have conferred upon myself in placing me in this chair. A chair, on how many occasions like this occupied by men distinguished by their talents? Men who have left their names engraved on the page of the history of medicine; or, at least, by men who have rendered great and prolonged services to our Association. I do not pretend to match myself with either class of these, my predecessors. You have taken me from my quiet occupation in this provincial city, healing the sick, and rendering, when called upon, what aid I may to my brethren, and solacing an anxious life with that which is so dear to me, as to many, literary relaxation. You have placed me in a position of the utmost difficulty to fulfil with satisfaction. I must therefore bespeak your kind indulgence towards all my negligences and ignorances. In return I can promise you one thing. I will endeavour to emulate my predecessors in this chair in zeal for your welfare, by using my best endeavours to promote your comfort and happiness whilst you are under our roof. And allow me to add that in this endeavour I am cordially joined by every member of our Reception Committee, and by every member of the Worcestershire and Herefordshire Branch.

Gentlemen,—We are met here to-day to celebrate the fiftieth anniversary of the birth of the British Medical Association. What thoughts are they which this event brings before our minds? Looking before and after, what retrospects, what anticipations? And first, how can we, here assembled, do honour to the august occasion? How ought we to acquit ourselves so as to be worthy to stand in the places, to sit in the seats vacated by the fathers, the *patres conscripti*, of our Association?

Our office, as physicians, you know, is to heal the sick, and to remove or assuage the thousand pains and miseries to which all flesh is heir. In doing this, the proper work of our calling at all times, we are to be honest, industrious, gentle, and true; acquitting ourselves, with due regard to the sacred character of our calling, with all honour and honesty before God and the world; whilst towards each other we must always be ready to tender the hand of loyal, helpful friendship and sympathy, which, together, form the very motto and emblem of our Association. How far this ideal, in its double aspect, has marked the character of our profession since the foundation of this Society might very well have engaged a portion of our thoughts to-night. But how we, here assembled, shall act, as we journey onwards in company with the second half-century of our Association's existence, demands an immediate answer; for the eyes of our dead fathers may be said to be upon us, and we may be sure that those of posterity will look back upon our deeds. How we should comport ourselves, then, under these circumstances, let each one determine before he leaves this hall to-night.

In fixing upon a subject wherewith to occupy your attention for the hour which prescriptive custom allows to one who occupies this chair, greater difficulties than those which, I presume, have usually beset the orator of the evening, were present to my mind. The occasion seemed to demand something out of the usual line. The Jubilee must have its *éloge*. Had it been otherwise my task would have been easier. The simple description of the "faithful" city—its history, its curiosities; its interesting manufactures; its grand old, and yet new, Cathedral; the beauties of the surrounding country; the charm of its hills, and dales, and flowing waters;—might well have presented fitting matter for this address, such as would best have suited my moderate powers to portray.

Or with greater fitness to the occasion, perhaps, and instructed by the early records of our Association, I might have told you the story of its birth within this city, and have given you some account of what manner of men they were who laid the firm foundations of the British Medical Association. Or, again, taking my cue from the very initial objects of our existence as a Society, I might have endeavoured to trace the progress which its members have made in the knowledge of their art, and in the exercise of that goodwill and generous help towards each other which are the two polestars of the Association itself. Or, lastly, I might have endeavoured to lay before you a kind of fifty years' book, directing your admiration to the great beacon lights of progress as they passed across the canvas of the panorama, and pointing out, step by step, the progress which has been achieved.

But, gentlemen, there were objections to each of these

courses. The story of our ancient city is well known to most of you. Its curiosities and manufactures, especially that beautiful one of china, will all be open to your inspection during your stay here, and I hope you will make good use of your opportunities of investigating them. Again, the history of our Association, does it not lie open to you, in its earlier records in the pages of the *Provincial Medical Journal and Transactions*, and in its later stages in those of our present *Journal*? Even but as yesterday the *Journal* set forth this history in an admirable manner, and so cut that ground from under my feet. Moreover, to-morrow has been selected for the celebration of our Jubilee, and that day will be the most fitting on which to celebrate the fame of our founders (amongst whom stands *facile priaceps* the name of Charles Hastings), and to take a review of the work which has followed their labours. To open up to you the fifty years' book, and to show you in a detailed manner the progress of medicine as a science and as an art during that time, would be too gigantic a task for me to attempt, even had it been practicable within the time at my command.

I therefore propose to ask your kind attention to some remarks—not upon the progress of medical science strictly so-called, and its relation to the advancement of science in general, a theme which I trust this jubilee has inspired some abler pen than mine to essay,—but upon what I may call the Revival and the Survival of Medicine in these kingdoms. I ask you to accompany me in an endeavour to trace the evolution of the medical mind during the past half-century; viewing that evolution or development in its tripartite aspect —viz., the intellectual, the moral, and the social aspects. After that, if time permit, we may try to make a forecast of what the future, the Survival, is likely to be, taking our material from the history of the past and the survey of the present.

Part I.—The Revival of Medicine.

Turn back with me now, in memory, to the decennium which fell between the years 1830 and 1840. The times were pregnant with mighty changes—political, social, and scientific. To those whose memories are able to carry them still further back, viz., to the period immediately succeeding the close of the great Continental wars, the collapse which followed the exhaustion of the nations by those wars must appear a most noteworthy circumstance. That period lasted from 1815 to the financial crash of 1825. The political collapse appears to have been accompanied by a corresponding mental stagnation. Science, which loves to dwell with peace and gentle intercourse, had, indeed, been quietly working in their absence, unnoticed in the political turmoil, and had made frequent efforts to obtain a hearing, but on one listened. The pipers were, indeed, ready, but no one had the heart to dance.

But when the material armies had exhausted their gigantic efforts to destroy each other, and to reduce the human race to impotence, and when the calm of peace had at length settled down upon the nations, then the pent-up forces of intellect burst forth. The mind of a nation so elastic as that of these kingdoms soon recovers power, and thus the losses and wrecks which political confusion had occasioned were soon effaced, and more than compensated for by the resources which scientific discovery opened out anew to enterprise. For no sooner had a fresh decade (that of 1830-40) opened, than we find the repressed forces of thought and research bursting forth from all restraint in many directions. In our own country, perhaps more quickly than on the Continent, the damage done by the political hurricane of a quarter of a century's duration soon began to be effaced. New enterprises were opening up to develope commerce, and new forces were sought for to accelerate their operation. Following in the earlier steps of Watt, of Boulton, and of Arkwright, Stephenson and Brunel, Wheatstone and Rowland Hill, were transforming at once our commercial and our social intercourse. Political enfranchisement was the *necessary* corollary of the desire for freedom to speak and freedom to act. And then came that new power, the power of combination and association, which, whilst even in its infancy it did more than anything else to reinstate the exhausted nations, appears to be destined, in the end, to obliterate all distinctions, political and civil, and, if anything can, to bring about the social millennium of the world.

Combination, applied to the exercise of thought and to the diffusion of knowledge, resulted in the formation of those great societies of which the "Provincial Medical and Surgical Association" was neither the meanest nor the least valuable. The year preceding the birth of our Society—viz., 1831—has seen the "British Association for the Advancement of Science" launched into existence, our Sir Charles Hastings having been one of the original members. A few years before, the Society of German Naturalists and Physicians had been instituted. And in July, 1832, the foundation-stone of our own Society was laid in this city by its distinguished and ever-to-be-respected founder, Charles Hastings, and his small, but devoted, band of coadjutors.

Gentlemen, time will not allow us to extend our review over any other field than that of medicine, and that in our own country. Let us survey, for a moment, in retrospect, its condition at the time of which we are now speaking.

Inasmuch as there were great men in Greece before Agamemnon, so also there were great names in medicine before 1832. But looking back upon that immediate period, what do we see? Both at home and on the continent of Europe, that decade was distinguished by a galaxy of names, the like of which, at one period of time, the world has rarely, if ever, seen. There were indeed giants in those days. Recall to your minds the names of Wilson Phillip, who once lived here in Worcester; of Lawrence, of Abernethy, and of Cooper, all of whom, however, were already passing away; and then of Copeland, of Latham, of Marshall Hall, of Brodie, and of Watson in England; of Barclay and Gregory, the Munroes and the Thompsons, of Knox, Alison, Bell, and Christison in Scotland; of Graves, and Stokes, and Colles, and many others in Ireland. Nor was the Continent in way behind us. I, myself, had the pleasure and advantage of hearing Louis expound Laennec, and of literally sitting at the feet of Andral, Chomel, Magendie, Roux, and Milne-Edwards; whilst Rokitanski, Skoda, Liebig, and, later, Virchow, were raising the German School of Medical Philosophy from out of its backward, or at least little known, condition towards the pitch of eminence to which it has since attained. And not only was it in medicine proper that this great advance was being made. Biological science generally was reaping in this generation the benefits conferred upon it by the one which preceded it. Bichat and Barchay, Prochaska and Wilson Phillip, were followed by Magendie and Fletcher, by Milne-Edwards and Marshall Hall, by Charles Bell, Brodie, and Hope, and by a host of others second only in fame to those I have named.

Now, if you observe the characteristics of these men, whose honoured names have since become as household words amongst us of a later generation, you will find that they were chiefly distinguished by two qualities; those qualities, however, being the Alpha and Omega of all scientific progress. They are, firstly, patient research and observation of facts, and thorough conscientiousness in the use of them; and, secondly, unswerving courage and truthfulness in announcing those facts to the world. The days of unquestioned dogma were passing away. Authority was voted to be unauthorised; and antiquity was looked upon as antiquated. Some amongst you may have read, as I did some forty years ago, Lawrence's celebrated "Lectures on the Natural History of Man," delivered before the College of Surgeons so long ago as 1817 and 1818. The sensation, as I, then a very young man, read them, almost took away one's breath, whilst the bold, outspoken, fiery thoughts rolled forth in the most magnificent English, withering up as they went the antiquated and prejudiced carpings of Abernethy and others of his school.

And the works of these men, these classics of the early part of the century, what splendid works they were! Not only were they distinguished by a novel treatment of their various subjects—new, that is, in their entire freedom from ancient prejudices, and from servility to antiquated dogmas; and new, also, in the industry with which fresh facts were sought out,—but they were especially distinguished by the method of their research. No deductions drawn from a few meagre facts, warped and manipulated to fit them to a preconceived theory; but the true Baconian system honestly adopted, and no conclusions come to but such as are justified by the data at command.

Then, look at their style! Not only, as I have said, were these men intellectual giants, but they were scholars as well. No doubt their scholarship was owing to the greater attention then paid to training in classical literature in the

education of the physician than is the case now. And if we now believe that Latin and Greek are of less use to a medical man than anatomy and chemistry, we must at least allow that the cultivation of the former is more likely to beget a pure style of writing than that of the latter only. Compare the diction of Lawrence, of Bell, of Latham, of Watson; of Gregory, Alison, and Christison; of Graves and of Stokes, with that of their contemporaries in any other field of literature, and you will not have to blush for the great physicians and surgeons of that day. Of our own Watson, you know, it has been said that he made the Practice of Physic to read like a novel; and, in this respect, I think I may call him the Macaulay of medical literature; whilst the terse and transparent style of Latham and of Bell bears a close resemblance to that of Connop Thirlwall, who, it is said, made but an indifferent bishop, but would have made a first-rate Lord Chancellor or a great physician. I do not like to say anything ill-natured of the style and diction of some of our modern medical authors, but, all the same, I think their time would not be altogether wasted if, before putting pen to paper, they were carefully to peruse, and re-peruse, the works of the older writers to whom I have just referred.

Well, then, gentlemen, these were the minds and these the works whose influence was beginning to pervade our profession, from one end of the land to the other, about the time of the birth of our Association. Two years before Andral had published his magnificent work, the "Clinique Médicale," a work based upon nothing newer or better than the plan of Hippocrates himself—viz., the minute observation of innumerable facts, and the simple, truthful narration of those facts; classified, but not systematised; intended for the reader to digest and assimilate for himself in his own way, not prepared and "peptonised," as I may say, to suit the author's own taste and fancy. In all this, medical research was but following in the wake—or rather, shall I presume to say, keeping in the van—of the progress of the other natural sciences, especially the biological; assimilating and adapting to its own use all that was available or procurable from other fields of knowledge. But such minds as these, brought to bear upon every branch of the healing art, by the focussing power of the various debating societies, could not long refrain from gratifying the intellectual instinct to systematise the art and science of medicine; and thus it was that, just at this time, the "Cyclopædia of Practical Medicine," edited by Forbes, Tweedie, and Conolly, was undertaken. This work was a giant for the period at which it appeared. It was to carry on this record, in face of the progressive and continuous development of scientific medicine, that two of the editors of the "Cyclopædia," but chiefly Forbes, started the *British and Foreign Medical Review*; and well was their purpose fulfilled for a period of over forty years.

At this time Graves and Bell, and Latham and Billing, and Williams, with their foreign allies, were revolutionising the theory as well as the practice of medicine. Nor must the names of their Scotch and Irish contemporaries be omitted. The Munroes, second and third, Alison, Thompson, Christison, and others in Scotland, and Graves, Stokes, and Corrigan, in Ireland, are too renowned to be forgotten. The medical societies in London were, as a consequence, enlivened and vivified by new facts and free discussions to a degree they had never known before. No wonder, then, that to a mind like that of Hastings, fresh from the warm atmosphere of the Medical Society of Edinburgh, the cold stagnation of a small provincial city was unbearable. He read papers, started journals and societies on a small scale, but it was not until 1832 that he received sufficient encouragement to ventnre upon that step which, he proposed, should result in placing the provincial practitioner in almost as good a position as his metropolitan brother.

And what was the condition of the provincial practitioner at this time? With the exception of a few local physicians of the older stamp, solemn, scholarly, and formal; and here and there an apothecary of more than ordinary acuteness of observation, there existed one dead level of mediocrity—men without the ambition to compete with their metropolitan brethren because the means of doing so were denied them. No sparks of genius emanated from their brains because there was no mental friction to produce them. No doubt, it was the inferior education of the general practitioner that made literature distasteful to him, and scientific attainments rare; whilst the desire for improvement, which might casually arise, found no field for action. So he settled down into the mere copier of other men's prescriptions, and the collector of current nostrums for certain symptoms. Bundles of prescriptions were handed down from one practitioner to another along with the practice. Having no other idea but that disease was an entity, he set to work to drive it out of the system by the popular means of bleeding, purging, and sweating.

If this were the intellectual status of the provincial practitioner half a century ago, were his morals and social status of a higher grade? I am not one of those *detractores temporis acti* who delight in recalling the caricatures—for they were caricatures, even then—of Fielding and Smollett, and, afterwards, of Dickens. Whilst the squire and the parson of the parish did not disdain to take their recreation in the parlour of the village ale-house, what wonder that the village doctor made that same ale-house his club also! But this, and his over-addiction to field sports, sometimes in company with his betters, but more often with his inferiors, drove away all desire for study, even if the means had been at hand, which, generally, they were not. So the top-boots and the red coat did duty for the stethoscope and the test-tube; whilst the lancet was thrust into the arm of the too-willing patient as recklessly and ruthlessly as the spur and the whip had been applied to the sides of the animal which brought doctor and patient together.

These were the palmy days of the provincial physician. Many times has he been figured, as, with solemn step and well-poised cane, he descended from his lumbering post-chaise at the door of some opulent patient. The arrival of this great man in some country town was quite an event, and the signal for all the blind and halt and lame to turn out, literally for a touch of the great man's hand. Those who could pay pulled out their guineas; those who could not might, perhaps, count upon getting a glance and a word from the "Great Doctor," as he was called, as he passed through the admiring crowd to his carriage in the courtyard of the inn. His grand and pompous manner denoted that he felt himself a head and shoulders taller than the poor apothecary who stood by, meekly trying to catch at the incontrovertible dicta as they fell from the mouth of the medical oracle.

Well, both species are now extinct, or extant only as *fossils* in some remote locality. Let us now inquire by what agency they have become so.

Turning for a moment to the working of our own Association, it must, I think, be admitted that the aim of its founders was a true and noble one, fitted for all time. That aim was, that knowledge should be freely and generously communicated by the free and generous intercourse between hitherto separated and scattered individuals. That this aim has fructified so as to justify its conception is, I venture to think, proved by what we see here to-night; by the vast numbers who now call the British Medical Association their professional parent; by our large and frequent gatherings for the promotion of social and scientific interests; by our current literature, and by the way in which it has forwarded those interests; and by the valuable and increasing efforts of research which the Association more and more supports and fosters.

Yet it must be confessed that, being what it was, the provincial profession in 1832 was scarcely ready for it. For some years but little way was made. The meetings were small; and the communications, with some signal exceptions, were only second-rate; whilst the *Journal* which contained them was as frequently uncut and unread as not. Like many other undertakings, it was a little before its time. That time, however, was soon to arrive; and we shall presently find that, like any venture founded upon truth and justice and the true wants of the community, it made way against all obstacles, and the result is what we see here to-day.

But another event, almost coeval with the founding of our Association, came to the rescue, and helped to make the decade 1830-40 for ever memorable in the annals of British medical literature. This event was the establishment of the *Lancet* as the leading medical journal. The *Lancet*, indeed, dates back some eight years before this time, but it was a puny thing in the first years of its life. It might have been compared at that time to a wasp, buzzing about the ears of the drones of the medical hive; but when remodelled and

enlarged in 1831, it began a fresh era. We may now liken it to a weasel, or to a still more unsavoury animal, the polecat, biting, scratching, driving out of their holes, with venomous scurrility, the "Bats," as it called the hospital surgeons and councillors of the Royal College, and hanging them up, like vermin on a barn-door, to general obloquy.

This was, for several years after its commencement, the function of the *Lancet*, varied only by the publication of a few lectures and hospital cases, obtained amidst all kinds of difficulty and opposition. But the services which this remarkable journal, after it had conquered its own independence, rendered to free medicine in the earlier days of its existence, amidst all its faults, failings, and even vices, were simply incalculable. Monopolies destroyed; hole-and-corner meetings and doings of the corporations for the benefit of the few to the detriment and exclusion of the many, exposed; pompous ignorance and overbearing imbecility held up to scorn; the oppressed and obscure, but honest and industrious seeker after truth, brought to the front. After a time, feeling its growing strength, this brave journal attacked the Legislature itself. And it was time. Its apathy towards all that concerned the interests of our profession, displayed in its tolerance of the most abominable abuses and monopolies in high places; its utter neglect of the public health; the farce of the coroners' courts; its winking at the atrocious adulterations of the people's food; its inhuman neglect of the sick poor; and its disregard of all decency in respect of the burial of the dead;—these abuses were one by one attacked, and their authors and abettors lashed with a pitiless and unsparing hand, until redress and reform were grudgingly conceded. The man who, whatever his faults—and they were many,—spent the best part of his life in compelling the Legislature to listen to his exposure and his complaints of these gigantic evils, and to redress them, was at length listened to, admitted into the Legislature itself, became a politician, and was spoiled. None the less does the memory of Thomas Wakley deserve this testimony from us who now possess an organ of our own, quite capable of maintaining those rights and privileges for which, in the early days of our Association, we had no weapon wherewith to do battle.

The work of the celebrated *Review*, which was commenced soon after the establishment of the *Lancet*, was of a very different character to that of its weekly contemporary. The arms which it used were not those of the satirist. There was none of the withering mockery of the *Lancet*. It contained no offensive personalities, and made no capital out of mere personal failings or defects. Its characteristic excellence was fair play to all. To make a candid and intelligent analysis of the work under review, clearly setting forth what was new and interesting in the book, whilst errors or failings were pointed out with kindness and sincerity—this was its constant aim. At the same time, it industriously gathered together all that was of value in the current foreign literature, and laid it, almost for the first time, before English readers. It fostered the diffident efforts of youthful but original genius, and, by giving them an opening into the medical press, procured that attention to the works of little-known authors, which, we know, is so difficult to be obtained. I was pursuing my own studies in Edinburgh when the first number of this *Review* was published. I was a constant reader of its varied and valued contents for upwards of the forty years of its existence, and, in common with all others who valued the best literature of our day, I grieved when, a few years ago, the neglect of a faster, but possibly shallower age, caused it to die of inanition.

But everything is not due to the great names of 1830-40. Those musty old tomes, reposing so peacefully on the back shelves of our libraries, what testimony do they not bear to the self-denying spirit displayed by their authors in transcribing and compiling whole systems of medicine, gathered with a labour and amid difficulties unknown to us, from every accessible source, for the benefit of those who should come after them. Contrast *their* labours with those of our modern medical *dilettanti*, whose hasty and sometimes crude lucubrations are carried weekly by a free press into thousands of medical homes, and say if, in this imperfect sketch of the history of a half-century's literature, these older fathers of the *ars medicinæ* should have been altogether passed over and forgotten?

Gentlemen, I fear I have wearied you with these references to an almost forgotten past. But, if it is good for us to look to-day before and after, upon what we *were* and upon what we *are*, in the hope that we may find a true beacon-light to guide us in the course on which we are now entering, viz., our onward journey in company with the second half of the century of the existence of the British Medical Association, I think the reference will not have been altogether out of place; for, if our fathers did greatly with the limited means at their command, we, with our far vaster opportunities, shall be expected at least to equal their deeds. If they laid the foundation of all that is valuable in our modern medical literature; of all that is exact and trustworthy in our scientific precepts; of all that is honest, free, and catholic in our investigation of truth; of all that is liberal, sympathetic, humane, in our intercourse with each other, and with the world; I think that it is due to them that this jubilee—this commemoration of the past and inauguration of the future—should not be allowed to pass away without justice being done to the memory of those whose labours have so greatly contributed to make such a meeting as the present possible.

In this imperfect and necessarily hasty attempt to trace the history of the medical mind during the past half-century, I have made no mention of medical politics. Nor do I intend to do so now. A President's Address, it is said, as it admits of no discussion, so it should contain no disputable matter. But I may briefly remind you that the great corporations which guard the entrance into our profession, and fix the initial requirements from each candidate, were at length roused from their long apathy, and their exclusiveness was finally broken down, by the same active minds of whom I have spoken—those minds who determined that everything connected with medicine should be free. The College of Physicians, before so exclusive, somewhere about 1860 threw open its doors and its honours to all qualified applicants, come from what college or university they might. The College of Surgeons had somewhat earlier given an impetus to enlarged studies by the establishment of its present fellowship examination; and the sister establishments in Scotland and Ireland soon had to follow suit.

Part II.—The Survival of Medicine.

It has been often enough said, but never more to the point than by Dr. Acland in his Address to this Association at Oxford in 1868, that "there are certain landing-places in a man's life where it is desirable that he should pause and think." Let us pause here, in this landing-place of our existence, this point between the fifty past and the fifty coming years, and look about us, and ask ourselves what manner of a profession ours *now* is; what is the condition and tendency of its mind; what are its aims; and what are the means by which it seeks to accomplish these aims? And here it is well to repeat once more, like the beautiful refrain which sometimes runs throughout an elaborate piece of music, the initial note, the *Leitmotiv*, the theme, or motto of our Association, which is this: the advancement and perfecting of medical science and practice, and the increase of helpful fellowship between all its members. Looking, then, upon the evolution of the medical mind as a continuous process, coming from whence we started, and going we know not whither, what are its characteristics at the present time? The first and noblest of them, I opine, is the love of liberty! Freedom to think; freedom to speak; freedom to write; freedom to teach! Fortunately for us, we have no Thirty-nine Articles to subscribe. We have no senate to revise and overrule the decisions of the commonalty of medicine; no courts of appeal, like our friends the lawyers. The great corporations, so long as we do not get convicted of felony, leave us pretty much to our own devices. Neither do they set up any standard of correctness, either of theory or of practice. There is no theory which we may not promulgate; no practice, short of manslaughter, which we may not pursue. An unfettered press and open criticism are the courts before which all claims to new discovery, to improved practice, to advance in knowledge, must be brought. All must stand or fall by their own merits. Still, great names have their weight. The words of a Jenner or a Paget, compared with those of little known authors, are as the discharge of an eighty-ton gun compared with that of a pocket-pistol. Now, the great value of this liberty, and the free organ which it has set up, must be evident to all. Its advantages, in regard of freedom of debate, of teaching, and of writing, are too great for us ever to allow them to be

withdrawn from us under any circumstances whatever. For by it original genius obtains an immediate and impartial hearing; by it the patient and self-denying labourers of industry and talent, who may have passed years in silent research, at length obtain their reward. Let us then never relinquish into the hands of the State the decision as to what shall be the kind and amount of our knowledge on entering our profession; or in what way, and under what restrictions, we shall conduct our experiments and inquiries into the laws of nature for the good of mankind; or in what manner, and for what reward, we shall carry our knowledge to the bedsides of our patients, be they the rich in their mansions or the poor in our hospitals; or, in what way we shall regulate our mutual intercourse. Over the Church, and over the law, for obvious reasons, it may be desirable that the State should hold a check; but over the investigations of science, and over the application to practice of that science, we will have no master other than the moral conscience of our profession itself.

The profession itself, too, must be the judge of what constitutes real progression in the art of medicine, and of what are the best means of aiding and securing that progress; and the profession itself must confer the chief honours and rewards of well-doing. Adventitious honours and State-conferred titles are all very well in their way, just as the riches and honours accumulated by the successful merchant or manufacturer are legitimate and of a certain value. But it must be the verdict of the profession itself which shall say, Well done, thou good and faithful worker, be thou rewarded for thy faithfulness to truth, to nature, to humanity, by the acclamations from the thankful and reverent hearts of thy brethren. This is the true gold; this is the patent of nobility conferred on real merit.

There is, however, unhappily, a foil to all this; for there is no human good without its admixture of intrusive evil. It is a fact that liberty, unrestrained, may degenerate into licence, and freedom from all control generate confusion. I have already said that the spirit of free inquiry long ago voted antiquity to be antiquated, and authority unauthorised. It is this spirit, carried to excess, which forms one of the nuisances of modern medical literature—when many a fresh investigator will treat his subject as if no one had ever done anything in it before; when many a young observer must narrate what he sees as if it had never been seen before, parading as new what may perhaps be found in Hippocrates or Galen, or, at the least, repeating in book and lecture what has been better said a hundred times before. Our current literature swarms with instances of this nuisance—for a nuisance and a real weariness of the flesh it is to all readers who know the literature of their profession.

If, in theory, and in the abstract, licence, which is liberty run mad, tends to these results, what is the outcome when the same licence is applied to practice? Every man fighting for his own hand, and that hand against every man! Every-one more or less unmindful of what is due to the rights and feelings of his neighbour. Self-assertion. Self-laudation. Self-sufficiency! And then the one step further——! Gentlemen, the quackery, the charlatanry, that exists outside the profession will never hurt us. It is the quackery, the charlatanry, the false pretence, the dishonest self-seeking to be found within the profession, which, if unchecked, will bring disgrace upon us. But without dwelling upon this unpleasant theme, and postponing for a time the question of a remedy for this licence, let us continue the contemplation of the better spirit of our profession at the present day.

A second grand characteristic of modern medicine, I take leave to say, is philanthropy. By this term I do not mean to say merely that we are animated by the love of our species at large, by the common readiness to do good to our neighbour when opportunity presents itself; but that our profession is ever seeking out, by toil of body and study of mind, new modes of relieving human pain and misery; that it ignores its own material advantage whenever that is placed in opposition to the good of our patients, or of our neighbours; and that it ever seeks to promulgate, against its own material interests, the doctrine "that prevention is better than cure." I think many words are not needed to prove that this is so. Our sanitary amelioration, and the legislation which promotes it, are they not almost solely the work of our profession; aye, of this Association itself? And do we not almost invariably, when entering a house, inquire into its sanitary condition, and, when discharging a cured patient, endeavour to impart to him the knowledge how to keep out of our hands in future? And with educated and conscientious men it cannot be otherwise. Such men cannot see human pain and misery without an ardent and single-minded desire to relieve them; and they daily go out of their way and give themselves much trouble, which is not really demanded of them, to contribute to the comfort as well as to the cure of their patients. This self-denial and this true philanthropy are, I am happy to think, daily becoming better recognised. The public are beginning to feel that ours is not a mere trade, so much attendance for so much money, which we practise. They are even inclined, some of them, to pat us on the back, and call us noble fellows, and other pleasing epithets of the same kind. But be on your guard! Much of this praise is false pretence, and given with the covert intention of trespassing upon your time and labour in an illegitimate manner. Medical men, they think, are animated by mixed motives. No doubt they are very kind and humane, but they are also ambitious and fond of success. Let us prey upon these feelings, say they, and put the care of all our sick, and poor, and miserable, upon their shoulders; and to keep them well up to the collar, let us call them brutes, and unworthy of their noble calling, if they by any chance neglect a sick panper, or grumble to turn out and ride miles on a cold night to minister to the results of our own excesses. Be on your guard, I repeat, against these illegitimate encroachments, and exactions of all sorts of kind offices which you are not called upon by duty or charity to render. Beware! Remember that fine saying of Tacitus, so terse, so true to human nature: "Nam beneficia eo usque læta sunt, dum videntur exsolvi posse; sed cùm eo multum antevenêre, pro gratiâ, odium redditur." Obligations may reach so great a height that no return is possible. When thanks avail not, there is no relief but through base ingratitude. Be not, therefore, the too trusted friend, carrying in your bosom the dread secrets of the family; or the performer, at a pinch, of some hateful service. The sight of you will continually touch the sore, and the first opportunity will be availed of to get rid of you, and so relieve themselves, after the manner so well described by Tacitus, of an intolerable burden of gratitude. But this by way of parenthesis.

I think I have established our claim to two great Christian virtues—viz., true liberty, and charity or love. I myself refuse to look upon our duties as medical men except by the light of Christianity. That, we know, gave us true liberty, setting us free from the bondage of pagan priestcraft and superstition. That, we know, first instilled into the heart of man true charity; the love of our neighbour as ourselves; "which does good by stealth, and blushes to find it fame."

What then remains to complete the Christian triad? Is it not Truth—truth to nature; truth to ourselves; truth to our brethren, and to the world? Are our studies and researches carried on in the sincere desire to attain the truth, and the truth alone? Is our teaching animated by the same principle, and by nothing else? Are our practice and our intercourse with the world regulated by the all-sufficient motto, "Let truth prevail, though the heavens fall"? If we all could answer these questions by a bold and honest "Yes," I should have no fear but that our profession will, in time, arrive at that high pinnacle of usefulness and exalted public appreciation which two great men have foretold for it. It was no less a man than Descartes who foretold that a great future was in store for us. All science, and almost all knowledge, was to be drawn upon to furnish the physician's mind, and then, he said, "all things would be open to him." No less a man than Lord Beaconsfield uttered nearly the same idea. If, therefore, these far-seeing men presaged such things for us, if the light of truth were consistently followed, what a failure must it be if truth be lost sight of! If this great light that is in us be turned to darkness, how great indeed must that darkness be!

If theories be pushed to an extravagant degree in order to bolster up some preconceived idea; if researches, which should be conducted only under the dry light of truth, be warped and strained to support a trembling reputation, truth must suffer.

The acquisition of knowledge, under any motive whatever, is undoubtedly a clear gain to the world. Nevertheless, it is the motive which actuates that acquisition which gives the entire value to it, so far as the individual is concerned.

And unless knowledge be sought for, at least in the first instance, from the pure love of truth, its reflected advantages may indeed contribute to the material prosperity of its cultivator, but they will add nothing to his character, nor obtain for him the respect of his fellows.

Is it not from losing sight of this canon of intellectual morality, if I may use the term, that so-called discoveries and improvements in practice are so often given to the world in such haste, under the unworthy desire to be the first to promulgate something new, whether true or not, that no well-balanced mind will venture to accept them until they have been examined again and again by trustworthy observers? And this mischief is increased tenfold when the public lay press is made use of to propagate plausible theories, which, to say the least, want the support of long-continued observation and experience. Until that has been gained, publication should be restricted to the professional press.

I have great hopes that this evil—an ever-increasing one—will be counteracted, and that the motives which prompt to too hasty publication of discoveries which are rather hoped for than believed in, will be corrected by that new element in the operations of our Association, the prosecution of knowledge by combined observation, the resuscitation of which we owe to our eminent and honoured ex-President, Professor Humphry. By the co-operation of a number of observers, errors which may have escaped the notice of one will be pointed out and corrected by another. Thus hasty conclusion—and worse, hasty publications—will be checked; and truth, when substantiated by the impartial judgment of many observers, will present itself to the world with an *imprimatur* which must carry conviction to every mind. Priority, instead of being selfishly sought after by each, will thus become the property of all in friendly brotherhood.

And now, coming to the practical application of our knowledge, if I mention one or two black spots, shall I require to apologise? I proposed, at the outset of this second head of my discourse, to inquire into the condition of the medical mind, and to mark its tendency and aims. Why not follow this out? This Association, at all events, should have clean hands. We are no longer young; we are grown men, and as such should not be afraid to look our affairs and our conduct in the face, nor ashamed, if we find ourselves going along the wrong road, or diverging into by-paths, to try to recover our way as speedily as possible.

No doubt, the spirit of our age tends towards a general *laissez faire*; allowing everyone to follow the direction of his own mental bias, or even whim, whether the project be one of theory or practice. But there must be a right and a wrong road, a right and a wrong method, in all intellectual and moral action. It is the province of sound and mature judgment to weigh all methods in the balance of right reason, and if any be found to sin against its canons, to reject them utterly. Truth, being many-sided, cannot be confined within fanciful bounds and narrow specialities. The scientific mind must be perfectly free and open, not enslaved by reverence for a name, or by predetermined dogmas.

Nor can there be any real fellowship between honest truth and consciously pursued error, for, independently of contradiction of belief, the lines they severally work upon diverge until they no longer touch at any point. To agree to differ, therefore, is not enough; there must be utter repudiation the one of the other.

And then, in regard to practice, are not the same faults to be discerned? Are there not in our ranks those who conduct their practice under what I may call an organised hypocrisy—men who assure one class of their patients or dupes of the hope of cure when cure is impossible, and given up by all honest men; who assure another class of the existence of serious maladies which no one else can see, and treat them for months or years for ailments which do not exist, or, existing, are of no importance; whilst guinea after guinea is extracted without mercy, or regard for the means of the patient, or to the real services rendered? By these vile arts the character of a noble profession is dragged in the dust, and fraud, detected in the guise of science, hangs her disgraced head.

So, then, we see that liberty, overstepping its legitimate bounds, degenerates into licence; so, charity and philanthropy, put on to answer a selfish purpose, become that hateful thing hypocrisy; so, truth, departed from or smothered in sophistry, becomes that still more hateful thing, a lie!

But these faults, which we all deplore, and which strict devotion to duty compels me to notice, are not all of home growth, generated within our profession. Some of them owe their origin and progress to the caprices, the follies, and the ignorance of our patients and of the laity in general. We are living in days when, if ever it were true, it is pre-eminently true now, that "a little knowledge is a dangerous thing." The general public have arrived at a little knowledge of things medical, and they like to take them very much into their own hands. They think that they know how to nurse and manage the sick quite as well, if not better than we do—a knowledge sometimes put in practice to their own cost. The public also think that they can manage our hospitals, asylums, etc., better than we can, as is frequently shown by the desire to have as little of the medical element as possible on their managing committees, and by the jealousy of even our legitimate and beneficial share in their counsels. Many of them also believe that they are better judges of the talents and capabilities of various medical men than we are ourselves, as witness their freaks and follies in the matter of consultations, and in the choice of consultees, in which they often prefer the guidance of popular rumour, or even that of the advertising columns of a newspaper, to the advice of their regular and trustworthy attendant. It would be laughable, were it not lamentable, when the issues of life and death are concerned, to hear the reasons which often guide our patients in seeking what they call "further advice." One wretched form which this assumption of independence of judgment takes is the resort to advertising quacks, not only those without, but also those within the profession. Once in the hands of these men, he who has thus exercised his right of private judgment does not come forth thence until ruined health and an empty purse teach him, too late, the folly of judging where the materials for forming a judgment are altogether wanting. And then, as regards consultants, do we not recognise a solemn farce when Mr. A. or Mrs. B. returns from consulting, say, some metropolitan celebrity, and tells us that Dr. C. has laid down all the rules for his future life, and indicated this or that health-resort as essential to recovery, and all in ten minutes' time, and for a fee of one guinea? The issues of life and death, in the case of a stranger never seen before, solved in a ten or fifteen minutes' interview, and all for one guinea! Why, a lawyer would take six weeks to do the same amount of work, and charge a bill of fifty pounds! Such practices on the part of the public must needs tend to relax the morals and to sap the strict integrity of professional men. The reasons for consulting this or that physician are often so grotesque, and the inability to discern between real merit and pretentious ignorance is so great, that the vices to which I have referred are petted and fostered until self-interest carries the day against professional honour and honesty. So true it is that *populus vult decipi, et decipiatur*, which may be translated: the public likes to be bequacked, and bequacked it will be.

If the foregoing observations be founded in truth, I think we may justly conclude that our profession, at the present moment, is still faithful in general to the great and true maxims upon which the British Medical Association was founded. The bounds of science are continually being enlarged; the search after truth never ceases; the application of fresh knowledge to the relief of human suffering is immediate. But there are blemishes—some of them, it must be confessed, of a serious character—which prevent the universal application of our fundamental maxims, and which, if they do not lower our profession in the esteem of the wise and judicious few, at all events prevent it from assuming that high position in public esteem which Descartes and Lord Beaconsfield pointed out as the goal to which we might attain. Therefore, this discourse would be wanting in finish, and my arguments in completeness, were I to conclude them without pointing out some remedy for the blemishes and defalcations to which truth, and not my choice, has compelled me to allude.

These defects appear to result from the fact that we are a republic; a bundle of units; *disjecta membra* of the body medical; without a head, without cohesion, members unattached to any central body. I have already said that the Royal Colleges, which watch over our admission to the profession, take little or no heed of our conduct afterwards. Our great societies also occupy themselves principally with the progress of the science and the details of the practice of our art.

They take no notice, unless it be in the most glaring cases, of our moral and social conduct in the exercise of our intercourse with each other, or with the world. And our own Association appears to be drifting in the same direction. Scientific investigation and research are being daily more esteemed and fostered by us, to the exclusion of ethical principles. We have committees which watch over the proceedings in Parliament, in order to secure us against surprises of a dangerous or harassing character; we have an organisation for procuring such reforms as are needful, from time to time, in our polity; and, what is better than all, we have a committee whose function it is to bring before Parliament and the public the result of our continuous and combined labours in the cause of the public health, and on behalf of the general public weal. In all this, our philanthropic spirit, and our hunger and thirst after truth, are the motor power; our own individual interest and comfort being cast the while into the shade. If, then, we have the means within our Association itself of giving effect to those great aims, surely that other function, the securing united action and honourable fellowship amongst ourselves, and upright conduct towards the public in all cases, might equally be brought into play.

In these days of liberty of action, men are jealous of the control of individual authority. As I have already said, we are a republic; we have no king, either constitutional or despotic. The heads of our Colleges are that, and nothing else. But, although men will not yield to the dictation of individuals, however eminent or high placed, will they not submit to the control of their fellows, jointly? Would not the great principle of association be found equal to the moral guidance of individual members, as it is to securing their political and professional rights? We know how great is the power of example, which induced the scoffer, who entered the church to sneer, to remain to pray. In the way of moral suasion, the power of numbers is, I believe, even greater than in that of political bias. So, to the voice of the profession, adequately expressed, it is fitting, and, I think, feasible, that every member should ultimately bow.

It is not for the purpose of surprising you with a rhetorical climax that I now, at the end of my discourse, return on my steps to the beginning of it, and point once more to the motto and spirit of the British Medical Association as equal to any and all emergencies, if only its mighty energies be well directed. You know that our Association must have future as well as a past history. And its achievements ought, in the future, so far to transcend those of the past, as the present number of its members exceeds that with which it started fifty years ago. Either our Association will become a body nearly co-extensive with the profession itself—a mere name, in other words, for medical men,—with a journal, perhaps, as its organ of speech, and nothing else; or it must become a great, but select Society, every member of which must conform himself to its fundamental rules and motto. It is agreed that the Branches are the strength of the Association; but, unless they be well attached to the head, they will only be like a loose bundle of sticks when the hour of trouble comes. It is of the greatest consequence, in my opinion, for the stability of the great fabric we have raised, that more frequent and more direct intercommunication should take place between the Branches, by their secretaries and their councils, and the governing head, the Committee of Council in London. The representatives of the Branches in that Committee of Council have, by our rules, equal power and similar function with the elected members. It is their duty and their privilege to take a more active part in the proceedings of the governing body than they now do; by so doing, new blood will be continually infused into what I may call the Senate of the Association, without displacing its old and valued members.

When the consultative Council of our Association shall have thus become in fact, as it now is in theory, really and perfectly representative by more intimate communion with the Branches, what is to prevent that Council from becoming a High Court of Equity and Ethics, before which all important questions affecting professional honour and conduct may be brought up for judgment? The knowledge that there was such a court, that *laches* of conduct would be investigated by a body, the adequacy and impartiality of which could not be called in question, would cause those who are tempted to be guilty of the *laches* I have described to shrink from incurring its censure.

But some may think that this court should have a more popular constitution. Well, then, be it so. Let it consist, say, of twelve members, six of whom should be selected by the Committee of Council from its own members, and six others to be chosen annually at the general meetings of the Association by the members assembled, or by the General Council first, and confirmed by the members at large. I am not very fond of universal suffrage; but I should not hesitate to submit myself to the arbitrament of a tribunal so constituted.

Gentlemen,—I have trespassed so long upon your patience and good nature, that I forbear to follow out the idea here thrown out. At a future meeting, should the suggestion meet with support, I will try to elaborate the plan and give it a more practical character. Let me now only record my own individual opinion, founded upon much reflection upon our past and present condition, that the power of combination, which the British Medical Association possesses within itself, has not hitherto been developed to anything like its full and beneficial extent. Its power to elevate the moral and social elements of our character, in the future, appears to me to be as great as that it has already exhibited in enhancing our intellectual status. In point of fact, the second fundamental *raison d'être* of our existence is now only surging below the surface. Great questions are coming on for solution. May they be solved in accordance with the motto of our Association laid down for all time by Charles Hastings and his associates. When that consummation shall have come to pass; when self-interest and self-assertion shall have given place to brotherly co-operation in well-doing, and to Christian charity and courteous deference to one another, then, and only then, will the British Medical Association have fulfilled its mission.

May I venture to conclude this discourse in words far more eloquent than any I have used, or can use,—words which I wish would sink this night deep into the hearts of us all,—words of the late wise and good Bishop to whom I have already referred: "When such a spirit (as that I have endeavoured to depict) shall become the prevailing spirit amongst us, the sick-room will become holy ground—a temple ever ringing with the exhortation, *Sursum corda!* Upward, hearts! Upward, above all paltry, sordid, grovelling aims and desires. Upward, to a level with the dignity of our calling; the privileges and duties of our station; the importance and arduousness of our work. Upward, to a fellowship with the wise and good of all nations. Upward, to the very Father of Lights; the Fountain of all Goodness! Lift up your hearts; and then, from the very depths of thousands of yearning, anxious souls, there will arise the clear response: Yea! we lift them up unto the Lord!"

RAPID ACCUMULATION IN ASCITES.—Dr. Fuller refers to the case (*Phil. Med. News*, July 15) of a married lady, sixty-five years of age, who was tapped in all forty-three times. The first operation relieved her of twenty-two quarts and a half of clear serum, and the last tapping took place one year and nine months after the first, during which time 710 quarts of fluid were removed. The patient died two weeks after the last operation.

THE THERAPEUTICS OF VENESECTION.—Dr. Dunn read, under this title, an interesting paper before the Suffolk Medical Society (reported in the *Boston Med. Journal* for May 11), which he terminated with these conclusions:—1. That although the errors of former days, without doubt, allowed a very great abuse of venesection, it has sufficient merit to demand our earnest consideration. 2. That in febrile attacks a loss of blood will lower the temperature, and this decrease is known to be disproportionate to the amount of blood lost. 3. That by venesection we do not actually diminish the volume of blood, but we cause it to become more watery; the free passage of the blood through the pulmonary circuit seems to be promoted, and the functional labour which the lungs have to perform is diminished by the abstraction of a certain number of the more solid particles. 4. It is fallacious to depend upon the condition of the pulse alone as the criterion of the amount of blood to be removed, or the benefit which the patient derives from venesection. During the discussion which followed, Dr. Bowditch and Dr. Fordyce Barker delivered strong and well-illustrated opinions as to the value of a judicious use of venesection.

ADDRESS IN MEDICINE.

Delivered before the British Medical Association in Worcester.

By WILLOUGHBY F. WADE, B.A., M.B., F.R.C.P.,
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THE circumstances of the hour suggest, almost compel, retrospection. A first impulse might be to attempt a review of what has been done to advance the practice of medicine during the last half-century; but the labourers have been so numerous, and their work so wide-reaching, that a moment's consideration shows the impossibility of compressing such a task within the limits of time which custom allots to us on these occasions. Suppose, then, that we adopt a narrower scheme; that we recall to memory some of the actual facts of medicine as it existed when this Association was founded, and some others which have occurred since. It may be possible from a consideration of them to derive some hints, some lessons useful to ourselves, and perchance to "make the stumbling-block the stepping-stone" to a safer and sounder platform.

At the time from which we date our existence, the weekly medical press, established not many years before, was in full and earnest operation—labouring, as it has ever since laboured, for the enlightenment and protection no less of the general public than of our own profession. In lectures, papers, cases, and hospital reports, we can see our predecessors as they lived and worked—not dressed up for inspection, not posing for posterity, but saying what they thought and relating what they did. There is, indeed, often an old-fashioned and out-of-date colloquialism, that brings their personality so vividly before us, that at times, when absorbed in these records,

> "It seems as though these were the living men,
> And we the coloured shadows on the wall."

Some high authorities tell us that the science and theory of language are to be acquired by the study of dead rather than of living languages. In like manner, we may sometimes learn more from the study of dead than from that of living therapeutics. If we exhume and dissect some of the mistaken practices of fifty years ago, or of a later date, let us do so, not in a spirit of vainglory or disparagement, but with the strict purpose of amending ourselves. The sum total of knowledge increases fast, but the capability of individual intellects slowly, if at all. We are, therefore, each of us liable to fall into errors analogous to, if not identical with, those we reprehend in others. It was not then—it is not now—a question of who makes mistakes and who does not, but of who makes the most and who the fewest, who the most excusable or who the most inexcusable. Looking back at the records of the past, we see that current errors were shared oftentimes by men who were in the front rank of the profession, and who, did they flourish in these days, would be in the front rank now. We may find even yet much to learn from their precepts and their practice. Great as have been the additions to our knowledge, all the wisdom of that day has not been exploded or superseded. It is only a spirit of conceit and ignorance, not of philosophy and knowledge, that would dismiss the doctors and patients of half a century back with,

> ". . . all our yesterdays
> Have lighted fools the way to dusty death."

We may hope that fifty years hence our successors may be celebrating the centenary of this Association as we are this day celebrating its jubilee. It is not indeed unlikely that they may follow our example, and select for that celebration the city of our birth. May we not also venture to hope that not all our knowledge and not all our practice will by then have become obsolete, even though they may be able to see clearly many things which we discern only through a glass darkly or not at all.

No one of the present generation, reading for the first time the clinical memorabilia of 1832, can fail to be struck by one all-pervading method of treatment—viz., bloodletting. Indeed, at first sight, it almost obscures our perception of any other therapeutical means or agents. The difficulty is to name diseases in which it was not used, not those in which it was. Its prevalence may be brought very vividly before us by a quotation from a contemporary author. He says: "Blood-letting is not only the most powerful and important, but the most generally used, of all our remedies. Scarcely a case of acute, or indeed of chronic disease, occurs, in which it does not become necessary to consider the propriety of having recourse to the lancet, or to estimate the effects of blood-letting already instituted." But, to get a full impression of this frequency, you must read, one after another, the records of cases in which—medical, surgical, traumatical, and obstetrical—bleeding from the arm was practised. Indeed, this does not exhaust the category. The chief resource of preventive medicine was to let blood from the arm every spring and fall.

Such was the practice of that day, and such, in large measure, the therapeutical science; for, be it observed, these things were done, not only by obscure apothecaries, but under the direction and auspices of those who constituted the highest court of scientific appeal.

Not many years before 1832, a weekly medical journal, which still maintains its high character, was instituted under the then appropriate name of the *Lancet*. In a few years after this date the title of this periodical had well-nigh become an anachronism.

Within those few years a revolution of opinion had taken place, the like of which the history of medicine wots not of. For, be it remembered, this was not the case of a transient phantasy—of a gourd which, having sprung up in a night, might well wither in a day—but the well-established practice of centuries, which had withstood not only the ravages of time, but repeated volleys from the batteries of wit and satire.

History tells us that, though she may lay her finger upon "ship-money" or "tea-tax" as having directly provoked a great political revolution, yet that there have been in each case many other circumstances which as surely, though less immediately, contributed to the result. The special grievance was but the fuse which fired the shell already charged with the explosives of discontent. Dispassionate survey can, I think, discover that our revolution in this respect resembled those political ones to which I have alluded.

To begin with the most remote predisposition: the medical profession cannot escape the influence of those phases of thought and waves of opinion which from time to time dominate other sections of the body politic. The intellect of that period was coming to distrust, and ultimately to banish, "violence, harshness, the darker shades of repression, from the education of the young, from the treatment of the insane, from the punishment of criminals, and to substitute for those time-honoured but most ineffectual processes a rational moderation." Well-known political reforms were the work of that period, and the outcome of the spirit just mentioned. Reconsideration of ancient dogmas was the order of the day; and that reconsideration in many instances led to their effacement.

Another influence was coming into play. The *vis medicatrix naturæ* has been recognised in medicine from time immemorial; but its efficiency as an antagonist to disease has been at different times very differently estimated. The formula may be the same; but the conceptions it embodies may differ to an extent which is equivalent to a difference in kind. It would seem that formerly Nature was esteemed but a very feeble and humble assistant, whose influence was nothing unless rigidly controlled and directed by a more intelligent, or reinforced by a more potent, agent. This idea was all in favour of robust and strenuous therapeutics, and they were accordingly dominant. It was assumed then that nature could do nothing without assistance. We do not assume, but know as a matter of fact, that in many instance Nature unassisted can do everything. "Expectant medicine" is the term used to designate the line of conduct, or perhaps rather the mental attitude, which this knowledge imposes upon us. This is sometimes derisively described as the art of laboriously doing nothing—of trusting to Providence; and it is supposed to be a lazy, shiftless mode of shirking responsibility. All sound principles are liable to corruption; and this particular principle may—indeed, in the hands of those who do not appreciate its essence, does—lead to a neglect of therapeutical means. But, rightly understood, it is anything but a lazy and shiftless method;

it necessitates a constant, anxious, and laborious study and observance of the tricks and turnings and vagaries of disorder and disease. So far from this system, when intelligently followed, leading to a disbelief in the potentiality of drugs, it seems to me to do exactly the opposite. Having learnt with more accuracy and greater fulness the natural progress of disease, we are the better able to estimate the extent to which the direction of that progress is capable of deflection by the administration of remedies; and it passes my comprehension how any person who has intelligently and dispassionately watched the progress of disease, when subjected and when not subjected to drugs, can refuse to believe that we hold in our hands gigantic forces to oppose to those of an aberrant Nature. Extremes meet; and it may be that, in this and many other cases, incredulity is a token of a credulous nature. I have avoided the term scepticism, which is familiarly used to signify an absence of confidence in drugs as remedies. Scepticism in circumstances where pitfalls abound, where just judgment is difficult from the complexity of the conditions, is not only tolerable, but commendable, and is of the essence of wise therapeutics. Disbelief and scepticism may appear to some minds to be the same in kind. The sun of another system may be the same in kind as our sun; but the difference in their respective distances is equivalent to differences in kind of the most essential character. Various causes, no doubt, co-operated in generating and maturing expectant medicine. One, which we know did at a later period markedly contribute to its development, was even at this period beginning to attract attention. Laymen for the most part do not pretend, and do not seek, to understand the merits of opposing medical theories or schools of thought. It is on this broad ground, and as an historical fact and not a critical opinion, that I say that Hahnemann was commencing to subject, not so much the public mind to his doctrines, as the bodies of the public in this country to his treatment. He had by this time evolved out of his inner consciousness the belief that infinitesimal particles might have what seem to us preternatural powers instilled into them by the divine agency of the pestle and mortar. If it was not the "little-dose" element which made this system attractive to the laity, certain it is that this chiefly fixed the attention of the profession. To say that the trituration doctrine is so absurd that no sane person can possibly believe it, is to ignore a great part of the history of speculative thought in all ages and countries; but it is just to say that the adoption of such a dogma requires an unusual share of that mystical element of which the mind of no one is entirely devoid. This view explains why, to the great bulk of the profession, the doctrine of infinitesimal doses dynamised by trituration was, and remains, incredible. Rightly or wrongly, cures apparently wrought by such medicaments were and are judged to be instances of spontaneous recovery. This interpretation necessarily facilitated the reception of that higher ideal of the powers of nature which was then arising; indeed, from that it is possible that the suggestion proceeded. Such a conception would undoubtedly make more easy the relinquishment of severe and violent modes of treatment, and amongst these blood-letting was conspicuous.

But systems are not swept away without some faults inherent either in themselves or in the individuals who administer them. Persons who, like myself, practise chiefly in consultation with others, have great advantages. We see much to admire, and much also to learn, if we are not too conceited to accept the lesson, in the practice of those with whom we are associated. We ought, from observing the faults of others, to recognise and correct our own, though an opposite result too often arises from the frailty of human nature. Mistakes in practice originate mainly from one of two sources. The first is ignorance of the teachings of science, or inattention in the application of them to the case in hand. To treat this statement otherwise than as a truism would be disrespectful to your intelligence. But you will not think it disrespectful if I say that we are every one of us a little apt in our own cases to blur and smudge this truth in our minds. Without categorically saying so, we contrive to feel that, after all, the mistake is chargeable less to our own account than to that of an inexact science.

The second source of error is a too rigid adherence to the dictates of science. This cannot be treated so peremptorily. That medical science as a whole is imperfect; that the individual sciences of which it is composed are imperfect; that of these the science of therapeutics is the most imperfect; that, above all, we, the agents who have to apply these sciences in our daily life, are imperfect—all this is not only true, but is universally admitted to be so. The doctrine that we must incessantly compare that which does happen with that which we think ought to happen is therefore no new one. Yet those who venture to submit rules and methods which, it is hoped, may minimise these defects, are somehow supposed to disparage, if not to dethrone, science, and to be wishful to replace it by some fanciful hocus-pocus of their own. Nothing can be more unjust, nothing can be more injurious, not to those who use, but to those who reject, precautions and safeguards, and to the science which they honestly desire to exalt. Disguise or dislike it as we may, it is not the less certain that, in the treatment of disease, we have no firmer basis than the doctrine of probabilities. And he who manfully recognises this is the least likely to fall into error, and the earliest to find out when he has done so, and therefore the promptest to retrace his steps. But why should we disguise or dislike this statement? We are not the only class who have to exercise their calling subject to such a law. Rulers and statesmen have to deal with involved and complex problems which their sciences have elucidated, but have not solved. They have to base their actions upon probabilities. They, therefore, though stimulated as we are by the combined forces of duty, benevolence, and self-interest, and with means of information far in excess of ours, find too often that their best considered efforts fail. They find still, as Hippocrates taught us, that "the opportunity is fleeting, experience fallacious, and judgment difficult." Take another instance. The doctrine of probability is invoked by a large and influential section of theologians as itself sufficient, without recourse to higher sanctions, to justify for mankind the hope of a future existence, and a belief in the Divine government of the world; but, in speaking of probability, the truth is that many fail to realise that the highest probability is divided by an imperceptible line from certainty; and we familiarly treat as certainties future occurrences, such as the rising of the sun to-morrow morning, which are but high probabilities. In medicine we have, in an ordinary way, to deal with some things which are highly probable, some fairly probable, some slightly probable, and some improbable, some only just possible, but with nothing absolutely certain and nothing absolutely impossible. This is not a reasonable cause for discouragement, still less for despair, though it is a reasonable cause for reflection, care, and thoughtfulness.

It is scarcely necessary to detail examples of the certainty or uncertainty with which we may anticipate the effects of particular drugs. But I may suggest a consideration of the varying results of aperients in what are apparently similar circumstances in different persons, or in the same person at different times.

There are special occasions in which we are all prone to misuse drugs, sometimes straining: sometimes neglecting, the teachings of science. We have all seen the acute case going wrong, sliding, we know not exactly at what first moment or how, out of our grasp. We see looming in the not remote distance the cliffs which overhang the valley of the shadow of death. We are beset by our professional solicitude, harassed possibly by undeserved reproaches, by passionate tears, or by the still more touching mute appeal of tearless eyes. We see no course which commends itself to our judgment, no clue to the enigma, no indication of what we ought to do.

Is it not true that, thus tried, our composure may become disturbed, our judgment clouded, that our conduct, instead of being controlled by calm consideration, may be misguided by panic? Does it never happen that, not knowing what to do, we resolve to do something? Does this something never take the shape of a potent drug in what is miscalled an heroic dose, administered without a sufficient possibility of being able to predict its effects? No one dissents from the propositions, that meddlesome surgery is bad surgery, that meddlesome midwifery is bad midwifery. Do we at all times adequately realise that there may be a meddlesome medicine which is bad medicine? Standing in the dark on the brink of a precipice, may it not show more wisdom, and require more courage, so to stand, than to take a free step, not knowing whether it may land us in security or precipitate us into the abyss? If, then, at such an adverse moment, keeping our fortitude unimpaired, and our head cool, we restrain

our hand—if we hold on, and wait and watch—that is true heroism, and may be rewarded by a clear, though likely enough a slender, indication of the course we should pursue, and that course may lead us to success. We shall, at any rate, have done that which is best calculated in desperate cases to secure a welcome result.

We have now seen that there is more than one way of misusing remedies. In all these ways our predecessors from time to time, as we may see from the records, misused blood-letting. In this misuse we find the real origin of its abandonment. In 1820 a provincial practitioner, a physician at Nottingham—Marshall Hall—opened the first parallel of the siege which, in my opinion, eventuated in the razing of this stronghold.

In 1829 he brought to bear on the abuses of blood-letting, in a more elaborate criticism, new facts and a more matured opinion. Instances are given where the sagacity of experienced practitioners had intervened to shield patients from the fatal effects of a too servile submission to the accepted teachings of science. Other instances follow in which honest reliance upon these teachings resulted in the patients being bled to death. The cases are on record, and will convince the most unwilling reader that this is not a sensational or rhetorical statement, but the simple, unvarnished, if unpalatable, truth. If all this be so, who can challenge our duty to exercise the right of private judgment? But this exercise, if it is to be salutary rather than misleading, must not be reserved for cases of exceptional complexity and difficulty; it must be habitual, daily, hourly. Trivial cases and familiar drugs should be to us what academy studies and jottings of nature are to the painter, reviews and field-days to the soldier, scales to the vocalist—the means by which we perfect ourselves in the details which have to be happily combined to make the supreme effort successful.

We come now to an episode in the investigation which, beyond its historical interest, has an important bearing on a question which is just now subjected, not to philosophical criticism, but to a vehement, heedless, rhetorical guerilla. After ten years devoted to investigating the effects of loss of blood, having amassed cases and accumulated observations, not ignorant of the strictures of previous writers on the abuse of blood-letting, in possession of a real clue and well advanced on the right track, deeply penetrated with the importance of the inquiry, and profoundly anxious lest, while purposing to benefit humanity by promulgating truth, he might inadvertently injure it by propagating error, in 1830 Marshall Hall undertook some experiments on living animals. But hear from himself his reasons. He says:—

"After paying considerable attention to the effects of loss of blood, as manifested by the human subject under the influence of blood-letting or hæmorrhagy, I still felt that there were so many questions left in obscurity, that the investigation of them in the way of experiment was one, the object of which was at once legitimate and most important.

(1.) "It was highly important to ascertain the effects of loss of blood in circumstances entirely free from the complication of disease or other unusual condition of the system.

(2.) "It was highly important to estimate the difference in the effects of loss of blood in the different ages.

(3.) "It was also highly important to fill up a blank left in my former investigations, by ascertaining more accurately and distinctly than before the various organic changes induced by loss of blood.

(4.) "And as blood-letting constitutes the most powerful of our remedies, and hæmorrhagy one of the most formidable of diseases, it became of the utmost moment to fix the rules and limits of the employment of the former, and to ascertain the most efficacious mode of restoration in the latter."

These words may have been—and, according to some, I presume, were—the specious covering which a cruel and blood-thirsty man, reckless of animal suffering and regardless of all moral duty, used to cloak his inherent savagery. May they not have been the truthful words of a just and righteous philosopher, offering reasons for resorting to proceedings primarily repulsive to his feelings—proceedings which were nevertheless, in his pondered judgment, obligatory for the complete elucidation of an obscure subject of direct and paramount importance to the cure of his fellow-man? Sitting here, the inheritors of this knowledge, which has indirectly changed the whole face of our practice, it may seem to us that the case was overloaded with proof. But it is impossible to decide, after the event, what amount of evidence ought to have been sufficient to fashion and consolidate into a coherent and shapely form the flocculent masses of colloidal truth floating hither and thither in the mind of a discoverer. War against the cherished convictions of the age is not to be undertaken with a light heart, nor with an incomplete armament. At any rate, the other evidence did not seem to Marshall Hall sufficient to overcome the *vis inertiæ* of contemporary opinion. For in 1836 he deemed it necessary to publish, in a more extended and complete form, and reinforced by his vivisection experiences, the views which he had already on several occasions propounded. It is warrantable, in such cases, to consider not only what is needed to convince ourselves, but, further, what is needed to carry that conviction to others.

A notable example of this necessity is furnished by difficulties which Harvey had to encounter in procuring admission for his great discovery into the category of accepted truths. I am not unmindful of the opinion held by some few persons, that the true circulation of the blood had been discovered before Harvey appeared on the scene. My own view of the truth on this question can be conveyed in a homely illustration.

A troop of children might be in possession of the various parts of a dissected map of Europe. One might hold a little piece, another a large piece. The clever ones might have got a knowledge of the names and the relative position of those towns which each bit of territory held. But, none being skilful enough to put the map together, they have no idea of the relative situations of the various countries. They would be the less likely to succeed in putting the map together, if some portions were missing, and if some chanced to have bits of another map which they tried to incorporate. The master-hand of the teacher puts the bits in their right positions, and immediately all places assume their true relations to each other. The pieces of the map of Europe are items of knowledge previously won: the bits of the other map are untruths—such as that the diastole of the heart was synchronous with that of the arteries—previously believed. The master-hand was Harvey's. The whole civilised world, with few exceptions, has long admitted that by Harvey the riddle was solved.

It would much strengthen my present argument, could it be proved that Harvey was a plagiarist and his disciples dupes. A truth which is locked up in the bosom of its discoverer, or remains recognised only by a select few, is rather a dead than a living truth, and might almost as well have remained undiscovered. Up to the time of Harvey, the physiology of the circulation, if it had been discovered, had not been accepted. Having satisfied his own mind, he was desirous of enlightening others. For nine years he expounded his doctrine to his Fellows of the College of Physicians, and illustrated his lectures by dissections of dead, and experiments on living, animals; especially exhibiting the action of the living heart, contemplation of which had mainly suggested to him the doctrine he was labouring to teach. Not till after this protracted education of his fellows did he deem it prudent to publish his essay. Further repetition of his experiments was necessary to convince the new audience thus obtained. It is, indeed, on record that a Professor of the University of Louvain, then an eminent seat of learning, was only brought to accept Harvey's views by repeating his experiments—a business which he had undertaken in the expectation of thereby proving Harvey to be wrong. Looking back at the time and labour expended by Harvey on the propagation of his discovery, it seems not unlikely that, but for the educational employment of vivisection, the office of the heart, and therefore the circulation in its totality, might yet remain to be discovered.

This fragmentary reference to the great Harvey is no doubt a digression. But, being compelled by the exigency of my theme to mention some experiments on living animals, it appeared both timely and fitting to say these few words. Vivisection is a method of questioning nature which has its supporters and its opponents. Behind them and behind us is a jury of our educated countrymen—yes, and of our educated countrywomen. Tenderness is not always irrational. Of the ultimate verdict of that jury, I, for one, am not afraid.

To return now to our proper subject. In the year 1836, Marshall Hall's last word on blood-letting was published. But a very few years elapsed before it had ceased to be practised. It is most curious that the intention and object of his publication was to regulate, not to abolish, bleeding. It is true that he clearly demonstrated that it might be, and had been, so employed as to produce not only injurious, but distinctly fatal effects; but he also taught its utility, authorised and, indeed, recommended its employment, though with limitations not previously laid down. How, then, it may be fairly asked, could such teaching result in its abandonment? The printed records show distinctly that this remedy had come to be used in all sorts of cases, at all sorts of times, as a matter of course; as one that could do no harm at the beginning of an illness to cut it short, in the middle as routine treatment, and when things became desperate as a forlorn hope—as the last, the only, chance. The plain blunt statement that persons had been bled to death *secundem artem*, the simple detail of the facts of individual cases, proving to the most unwilling reader that this statement was true, must have pricked the conscience of many an honest practitioner. Men came to look at bleeding from an exactly opposite point of view to that which they had previously occupied, and began to see that it was not absolutely necessary at the onset of disease, was of doubtful safety as a routine treatment during its height, and at a grand crisis might even be fatal. Can we wonder that, in a few short years, the practice had ceased to exist!

It would be improper, and indeed might be misleading, to leave this subject without adverting to another explanation of this astonishing change in practice. It has been attributed to a change of type in disease. A chief supporter of this view is one of the ablest and worthiest representatives of medicine in our time—worthy, indeed, of any age,—Sir Thomas Watson. What has not been shown, he says, writing in 1857, "is that the human constitution is incapable, from influences to us unknown, of undergoing alterations in respect to the manner in which it is affected by inflammation, and by the reputed remedies of inflammation. For my own part, I am firmly persuaded, by my own observation, and by the records of medicine, that there are waves of time through which the sthenic and asthenic characters of disease prevail in succession, and that we are at present living amid one of its adynamic phases."

It is not necessary to discuss the soundness of the view so succinctly stated. For the purpose of my argument, I could have wished to be able to give it an unequivocal assent. It enforces, with the most eloquent brevity, the supreme and paramount necessity of a constant, even suspicious, watchfulness of our own operations and of the workings of nature. Let us now turn to some further considerations which especially enforce this obligation.

Whilst unreservedly admitting that medicine is imperfect, we all believe that it is not stationary, but progressive. Each year furnishes more exact knowledge as to the structure of the body; the uses of various organs; their *modus operandi* in health; the manner in which their operations are disturbed by disease; the effect of such disturbance upon other organs; the causes of these disturbances; and the extent to which they may be controlled or interrupted by diet, drugs, or other agents.

We are from time to time presented with new instruments, or new means of exact research, with new drugs, and with new facts or theories respecting old ones. But this is by no means all. We are furthermore being, not infrequently, urged to apply this new knowledge, or these new views, to the treatment of disease; to employ a new drug, to discard an old one, or to use it in conditions to which it has heretofore been considered inapplicable, or to use it in doses of much less or of much greater magnitude than we have been wont to administer. Examples will at once occur to your minds of beneficial changes which have of late years been in this way introduced. It is possible that we may have to go much further in some of these directions. As regards the dosage of drugs, I am strongly inclined to think that, both as regards *maxima* and *minima*, we are too closely bound by the fetters of posological tables, or of our habitual prescriptions.

But let us look at the other side of the shield. It is not many years since a provincial surgeon of ability and of local repute began to employ and recommend a new plan of treating delirium tremens. He gave tincture of digitalis in doses which, compared with ordinary ones, were simply enormous. In support of his views he cited cases in which these huge doses appeared to have produced the most beneficial results. One thing appeared certain, that, contrary to anyone's anticipation, these doses had not proved fatal. The facts were puzzling to most. There is always a class of minds who have no difficulty in dealing with such a case: if the inferences appear unavoidable, but inconvenient, they disbelieve the facts. Nothing can be more simple. Some supposed that the drug employed was of inferior quality, and therefore comparatively inert. To others who looked a little deeper, it seemed probable that there were conditions of the body which might bear, and even profit by, doses which, under other circumstances, would be poisonous; that these conditions were present in some, but not necessarily in all, cases of delirium tremens; that, before long, cases of this disease might present themselves in which these particular conditions were not present, and that, if so, we should hear of fatal results from this plan of treatment. This is exactly what happened; and on this the practice, so far as published data show, passed away. It is too probable that the reaction went to the extent of unduly limiting the use of the drug in those cases of delirium tremens where, in moderate quantities, it is most advantageous. It is not in the case of blood-letting only that we see that a remedy, while it has a good name, is used in season and out of season, but, if its name become tarnished, not at all.

Let me quote one other example of the pitfalls being daily dug in our path if, by constant search after improved methods, we justify our claim to the honourable title of practitioners.

It is not so many years ago that there flourished a great clinical teacher, famous alike in the wards of an important metropolitan hospital and by the bedsides of the wealthy. Is it a truism that, to be sound, medicine must be based on physiology? He was an assiduous cultivator and eminent teacher of this science. In the zenith of his fame he sought, as you all know, to establish the plan of treating acute diseases by alcohol in almost unlimited quantity. Is it surprising that his views—earnestly enforced by word of mouth and in fascinating essays, propagated by an enthusiastic and numerous band of disciples, and not without an important substratum of truth,—is it surprising, I say, that his precepts became popular, and that his example was for a time largely followed? What is our position now with regard to alcohol and its administration as a drug in acute diseases? Exactly what it was before this mischievous delusion arose. There is no acute disease in which alcohol is necessarily required. On the other hand, there is no acute disease in which special circumstances may not arise to necessitate its use in small, or in large, and even in very large doses.

The error of Todd mainly arose from that fertile source of medical—we might truly say of human—error, hasty generalisation. He had no doubt seen—as who amongst us has not seen?—the revivifying effects of a dose of brandy opportunely administered. He had, no doubt, as we all have, seen the patient rescued by a few repetitions of this dose from the door of death to which he had been brought by an internal inflammation. The change is nothing less than the transformation of a scene where hope seemed ridiculous into one where anxiety seems absurd. The thought naturally arises, Why not prevent the advent of such an alarming condition by beginning a little sooner to administer so sure an antidote? To the soundness of this suggestion no just exception can be taken, for undoubtedly the experienced eye can discern the storm coming, without waiting till its bursting has announced its existence and destructiveness. So far, then, so good. But having got so far safely, it is easy to go still further, and to get on to dangerous ground. Why not begin at the beginning? Why not give the alcohol as soon as you know—and this is not difficult—that you have to do with an inflammation? The acceptance of this reasoning involves perilous consequences. Few minds are so delicately balanced as to be able to distinguish between such a position and the adoption of alcohol as an anti-inflammatory specific. You will not ask me for a metaphysical analysis or definition of the term "specific." But you will permit a few remarks upon the practical dangers arising from the conception which it embodies.

The medical mind never has ceased, and probably never will, to hanker after specifics. From time to time some

drug is elevated by its undeniably remedial effects into this position, and our hopes are flattered that we possess one. The idea is most grateful. In the first place, what a saving of labour, thought, and trouble! Nor is there anything in that feeling of which we need to be ashamed; for with many specifics to lean on, our lives would be sufficiently arduous. Then again, we all feel, though perhaps we may hide it from ourselves, the uncertainty of medicine. How delightful to know that to the credit of our own reputation, and to the advantage of our patient, we have for at least one disease a remedy that cannot fail!

We see the chemist with his glass vessel full of carbonic acid in one hand, and in the other a lighted taper. He dips the wick in the carbonic acid, and the flame is extinguished. The result is immediate, decisive, and unfailing. Can we be reproached for wishing that we might in like manner take a pneumonia in one hand, and a vessel full of alcohol in the other, and by a similar immersion procure a similarly decisive and unfailing result? We might perhaps with equanimity submit to its being less immediate. Depend upon it that to those who harbour such a wish, and indulge in contemplating the possibility of its fulfilment, the danger is great of erroneously believing that they have achieved the result. The danger is still greater that they will come to look at many drugs in the light of quasi-specifics, and so relax watchfulness over their effects.

It is true, probably, that no one of us believes in the existence of an absolute specific which can never fail; but, on the other hand, we must remember that the conception of a specific and the conception of failure are reciprocally exclusive. A vivid mental picture of the one necessarily implies a very shadowy perception of the other. One reason why this yearning for specifics is so likely to mislead us is that it almost inevitably involves a conception of disease as a unity, instead of a complexity, of processes.

Perhaps I shall be able more readily to explain myself if, leaving abstract propositions, we revert to the specific treatment of pneumonia by alcohol.

A "case" of pneumonia is compounded of two parts. The first of these consists of those local changes which are summed up in the phrase "the inflammatory process." It is true, though we do not need to dwell upon it, that even this phrase suggests multiplicity rather than unity. But there are also, as in all cases of inflammation, not only the local focus, but the influences radiating therefrom, and affecting all the organs and constituents of the body. In no disease is this duality better exemplified than in pneumonia, and hence this disease has been so often in times past a battlefield for therapeutists. In no disease does this duality require to be more explicitly recognised, because in none is death more often distinctly due to these secondary disturbances, and the danger so little in proportion to the cubical area of the original disease. It is true in all acute diseases, though especially so in this one, that the difference between life and death turns oftentimes on the possibility of rectifying some quite secondary functional disorder, as of the kidneys, the liver, the heart, or (in a single pneumonia) of the other lung. If we cannot unload the camel, we may nevertheless succeed in a timely removal of the last straw. It is true of all acute diseases that a proportion will, under the most unfavourable circumstances, recover, that another proportion will, under the most favourable circumstances and the most sagacious treatment, die. But there is a residue in which the issue is in our hands to make or mar. Which we do, depends, in the main, on the soundness or unsoundness of the abstract principles which underlie our actions. And here let me beseech you in your mind to keep every case in this third category till all danger is gone, or till, on the other hand, death, not in your judgment is impending, but has actually commenced. The desire for a specific is an instinct, and will, therefore, be ever lurking in our minds; and it is because I believe it to be a dangerous conception when translated into practice, that I have dwelt on this question with sincere, if tedious, earnestness.

Let me now direct your attention to another idea which has influenced, and does influence, therapeutists. It is a truth which has been long recognised, that enfeeblement of the general powers of the system lowers our corporeal capacity to resist the invasion of disease. Debility is, to use the old phrase—now, it is to be regretted, lapsing into obsolescence—"a predisposing cause of disease." The histories of desolations and famines have, more than once within our own times, exemplified this on a large scale. Individual instances are continually presenting themselves amongst the recipients of medical relief in the club, the parish, and the hospital, where disease has followed close upon an insufficiency of fuel, food, and clothing. In the better classes we see something similar amongst those who are worn out, or battered, or wounded in the battle of life. All this, I say, is as true as it is old, and as old as it is true. But, for some years past, this idea has been very largely developed. The connexion between debility and disease has been advanced by degrees till, in many minds, they appear to have become convertible terms; not perhaps avowedly, not even consciously, but so effectively as often to dominate all other therapeutical conceptions. This position is scarcely tenable, either theoretically or practically. It rests on confusion of two very different conditions. The body enfeebled by insufficient food may yet have its component parts and organs sound, and their functions maintaining their due balance and complementary proportion. It is, on the other hand, of the essence of disease that one of these parts or organs should be so altered as to interfere with its functions, and so to disturb this balance. But disease also arises in those whose vital antecedents have been quite different; and anatomical examination, however searching, fails to find that the local changes in the one case differ from those in the other.

Practically, taking the case of acute disease, we do not find that the difference in the previous vital status necessarily indicates a decisive difference in the treatment. Take, for example, two cases of typhus, the one occurring in a subject previously in full health, the other in a person previously reduced by want; it does not follow that in the latter alcohol will be requisite in larger doses than in the former. As a matter of fact, we know that the very reverse may happen. It seems to me difficult to get away from the theoretical proposition, that the best way to relieve the debility arising from disease is to remove or mitigate the disease. Probably what seems to me a practical slighting of this proposition arose at a time when confidence in the resources of art to combat acute disease had fallen to a low, perhaps its lowest, ebb. Blood-letting had dropped into disrepute. Calomel and opium, a combination both safe and effective for certain purposes when discreetly employed, had also become discredited, mainly in consequence of its administration having been pushed under these circumstances to a pernicious extreme. We cannot wonder that the idea of driving the patient through difficulties, as an engine may be driven through a snowdrift, assumed in some minds an undue magnitude. But the influence of this notion was not limited to the case of acute disease. The progress of medical science has for some time been most marked in the elucidation of the nature and results of organic disease. The hopelessly irremediable character of the changes here found has certainly tended to enforce the idea of "nourishing, supporting, and building up." From this point the same idea has spread to an earlier stage in such cases, the stage of incipient disease, or to an even earlier stage, that of threatening or impending organic changes—a pre-organic stage. May it not happen, has it not happened, does it not happen, that sometimes this truly important consideration is suffered to overshadow other considerations also truly important? Is there not danger that what we will, merely for convenience and brevity, call the physiological basis of treatment, may be insufficiently resorted to; that the diseased organ itself may not be adequately helped, and coaxed, and assisted to do yet a little more work; that its oppressed and labouring neighbours may in like manner be left without due succour? If it is important that we should get a complete mental grasp of the whole of a case, it is mainly so that we may be the better able to disintegrate it into its constituent elements; that, having so resolved it, we may the better see what we can and what we cannot cope with. How it might have altered the past, had the custom been universal for each one to ask himself, before deciding on a plan of treatment, three questions: What do I propose to aim at? Why do I do so? How best may I effect my object? Might not such a method also alter the future?

In planning this address, it seemed to me that it might hold out better prospect of profit to deal with the impersonal past, and not at all with the personal present; but I should feel myself unfaithful to a great trust on a serious occasion, did I not infringe this resolution to the extent of one sen-

tence. Dispassionate survey of present medical practice forces me to the conclusion that, on a very large scale, and in both chronic disorder and organic disease, the physiological basis of treatment is too often unduly subordinated to the restorative basis of treatment.

We have now recalled to our recollection leading examples of various kinds of past error. My desire has been to enforce lessons which are worth the learning, since they are of perpetual applicability. I could well have wished to do so with more power, with more perspicuity, with more persuasiveness. But, I beseech you, let not any clumsiness of method, any dulness of manner, any inaptness of illustration, repel you from the subject. Analyse, each one for yourself, and in your own way, the conceptions and the practices of those who have gone before. Above all, analyse each one for yourself your own conceptions and your own practices. All true wisdom must be endogenous. You may plant cuttings or sow seeds of the tree of knowledge in the brain of another; but, unless they there grow and germinate, he will have no true tree of knowledge of his own. Principles, to be effective, must be bone of our bone, and flesh of our flesh—not foreign bodies, how much soever embedded or encapsulated.

The lessons I have been trying to enforce are no new ones; we can see, by looking back, that the doctrines they embody have underlain the actions of all the great practitioners of the past. I venture to think that they ought to be assimilated by all practitioners in the future. We are told, it is true, that a stage of observation is but the infancy of any science, from which, in its adolescence, it must be emancipated. We are told that observation has done all it can, that medicine has been too long dawdling in this infancy, and that all our efforts should be directed to elevating it from a stage of observation to the higher level of exactness. What if of late years great advances have been made good in this direction? What if the knowledge procured by more precise methods of investigation, by a more refined organic chemistry, by more penetrating microscopy, by a more diversified experimentation, promises in the future to assume proportions undreamt of in the past? Can we suppose—has anything yet been done to justify the hope?—that in any near future we shall be able at once to repeat the experiment of the laboratory in the sick-room, and certainly obtain the same result in the confused and complex conditions under which it has there to be performed? Such hope is idle, and worse, it is hostile to philosophy and fatal to progress. The greater our advances in the sciences of anatomy, physiology, and pathology, the more need that our powers of observation should be sharpened, refined, and sensitised; for in the same proportion will new suggestions arise of modes in which this knowledge may be transmuted into means of influencing the processes of disease. In short, we shall be told more frequently in the future that we are to modify our old usages, or to discard them altogether, and employ new methods. Is the history of medicine from this day to be reversed? Are we in future to be confident that no false prophets will arise; that we shall be safe in believing that all we are told is true? If not, how are we to refuse all the evil and to choose all the good? The authority of the teacher, as we have seen, is no infallible test, for the evil may come from an oracle well calculated to command our assent. We must, to a large extent, depend each one upon himself, his own observation and his own private judgment; employing the best means and devices of science to insure accuracy of observation, and exercising our judgment with caution and modesty. To the few only is it given to extend the landmarks of science, or to reclaim the waste lands of ignorance. But to each one is given the power to cultivate and utilise those which have been reclaimed. To each one it is given to render the practice of medicine more rational, more common-sense, because more truly scientific; to render more rare in the future such dark blots as we have regretfully recognised in the past.

Sanitary Institute of Great Britain.—At the Congress, to be held at Newcastle-upon-Tyne, September 26 to 30, Dr. Richardson, F.R.S., has consented to give a lecture to the working-classes. The exhibition in connexion with the Congress will remain open until October 21.

Compulsory Vaccination in Switzerland.—This has just been rejected by a *plébiscite*.—*Gaz. Hebdomadaire*, August 1.

ORIGINAL COMMUNICATIONS.

SOME OBSERVATIONS ON CONSUMPTION.

By WILLIAM H. PEARSE, M.D. Edin.,
Senior Physician to the Plymouth Public Dispensary.

(*Concluded from page* 151.)

Treatment.—Many years ago, in the wards of the Middlesex Hospital, I saw a man who had extensive and old ulceration in the regions of the groin and scrotum. Under galvanism in a comparatively few days the wounds healed. I had never seen so rapid a healing or return to natural process, except in an experience I once had with natives of India, when I was astonished to see the rapid healing of ulcers of the skin during the last few days of their lives, when sinking from other diseases. During the past two years I have been treating strumous ulceration of the neck with faradic galvanism, and with the most gratifying results. Cases of ten and twelve years' standing have healed in a few months. The patients were not insulated; one pole was placed over the cervical vertebræ, the other made to wander over the surface of all the wounds.

What the intimate molecular processes are when galvanism is so applied, we do not know, but the result is an increase of vital formative energy in the tissues. May we venture the hypothesis of a correlation of force having happened? May we not fairly expect that such instances of restored vital formative power put us near to a method of sustaining and restoring the vital energy where it is deficient, as in the case of the evolution of tubercular cell forms in the lung structure.

I never cease to wonder at these neck cases. How did they get well? Was the faradic "energy" (galvanic "force," so-called) correlated with a different "mode" of energy, yet one in true continuity, viz., the vital? Believing that Matter, the so-called Forces, and the vital rate or energy, are only different modes of one great common Form,(a) it is impossible but that the mind must strive to grasp the actual process and series which has happened in the healed-neck cases, and in the hope to be able to employ a true method—allied correlations of force—to the arrest or cure of phthisis. I have now some early cases of phthisis under faradic treatment.

In the numerous cases of indigestion which presented in the pre-phthisical and early phthisical stages, I have, during several years past, generally prescribed a mixture consisting of muriatic acid, arsenic, and quinine. It is a rare exception for patients not to be greatly benefited by the treatment. They return, not only to say that their indigestion is relieved, but that they feel much better; that is to say, such neuroses as their habitual feeling of weakness, loss of appetite, etc., disappear. No one will suppose that such a combination of drugs acts only within the laws of inorganic chemical action; the far more complex series and conditions of the organic and vital are involved; but the inorganic, the organic, and the vital are in such a case in absolute "continuity." Such indigestions have far deeper involvements than the stomach; they are functional failures, the result of very general conditions in the system; we may fairly, yet hypothetically, say, that they are disturbances or perturbations of "vital energy." What astonishes me very much is, that one sees individuals, who may have had such neuroses for years, relieved of such symptoms, not only temporarily, but for many months or years. What is the actual intimate process or change which is involved? In the present state of our knowledge we can only in part say, hypothetically, that a correlation of force has been effected from the inorganic substances with the vital; the great

(a) From profound and general historic circumstances, acting during 2000 years, the European mind has been ever slow to accept great general truths in science and philosophy; it may comfort many minds to remember what Bacon says in the "Advancement of Learning:—"For certain it is that God worketh nothing in nature but by second causes; and if they would have it otherwise believed it is mere imposture as it were in favour towards God, and nothing else but to offer to the Author of Truth the unclean sacrifice of a lie.' Babbage Ninth Bridgwater Treatise. 1837, page 8? says:—"All analogy leads us to infer, and new discoveries continually direct our expectation to the idea, that the most extensive laws to which we have hitherto attained converge to some few simple and general principles by which the whole of the material universe is sustained, and from which its infinitely varied phenomena emerge as the necessary consequences.'

law of "continuity" is as absolutely involved as when we correlate motion into sound, heat, and light.

A grand improvement in the health—a disappearance of the indigestion and other neuroses—very often follows change of air. Here, again, we are totally unable to state the exact changes which have happened in the system; we can, however, say, hypothetically, that changed external physical existences have become correlated in the system into vital energy.

That which is so astonishing in such facts, as that patients are benefited by galvanism, by certain substances given internally, and by change of air, is the susceptibility of the system to get benefit from such infinitely small changes in composition and environment. Such instances of benefit, in so many cases, excite the keenest expectation for the discovery of yet more powerful co-ordinators of vital energy and growth. I am continually seeing cases of phthisical type, and in early phthisis, who get great good from change of air, especially from a stay on Dartmoor. In the summer months, on Dartmoor, delicate young people can be out of doors all day long, and with great benefit. Referring to knowledge which is got from simple observation, I do not feel more sure of any fact, than that of the long-continued good which patients get from a month or two of out-of-door life on Dartmoor.

But, holding the great doctrine of "continuity" as a necessary *à priori* truth, one longs for a more exact knowledge of the intimate order and process by which the inorganic remedies and environment act so beneficially on the vital function and being.

But these, and other instances of remedies, are, at any rate, an entrance made into that region of phenomena which fills up the vast but unbroken space between what is called the inorganic and the organic.

Having heard many phthisical and delicate people say how much they longed for the smell of seaweed, and how refreshing they found it to be, and as certain seaweeds have been used from time immemorial on the north coast of Cornwall in strumous cases, I had a pill prepared containing the dried and powdered bladder of the *Fucus vesiculosis*, collecting it at that season when the bladders are full of pulp. Three grains of such powder were combined with one-twenty-fourth of a grain of arsenious acid. I often gave a mixture of quinine, muriatic acid, sulphate of manganese, and a little sea-water, along with the pills. The remote hope in giving sea-water and sulphate of manganese arises from the amazing vitality of some forms of fish: *e.g.*, the heart of the shark will contract on irritation an hour after it has been taken from the body. Manganese has been proved by the soundings of the *Challenger* to be in process of segregation into nodules of mineral over very wide areas of the ocean bed; it must therefore be a very diffused and important constituent of sea-water, in its relation of habitat and environment to the animal and vegetable life of the ocean. I know no contrast greater than that of the powerful vitality of some of the early types of fish (*e.g.*, shark) to that of the feeble vitality of a modern human animal tending to phthisis. The analogy is too remote for one to build a therapeutical expectation on, but the astonishing power of natural mineral waters in modifying and curing disease, perhaps justified the trial. For we all know by experience that a vastly smaller amount of mineral constituents in the natural mineral water is more potential than any other or larger artificial combination of the same elements. *Nascent* states, or states of molecular force, exist in natural mineral waters, which our chemistry is too feeble to create. I am not able to form any critical opinion as to the results of my trials with the treatment referred to.

The *slow* evolution of phthisis seems to point that the essential supplies for the co-ordination of composition and energy, which shall result in healthy structure, may be of extreme delicacy of correlation and smallness in amount. In dealing with phenomena where such delicate and complex correlations exist, we cannot be too cautious as to the administration of minerals and drugs. Until the day when exact analysis shall tell us what is the difference in composition between one who passes into phthisis, and one who does not, we can only seek our remedies by analogy and the instincts of patients.

Although the heredity of phthisis teaches us that the tendency to it must be differentiated in the ovum, yet, as certain external physical conditions and certain internal vito-physical conditions can, in the life of the individual, hasten that tendency into disease, so it is as certain that certain corelations and correlations might sustain the evolution of healthy lung-tissue into a longevity consentaneous with the longevity of the other segments of the body.

When I reflect on the great law or form of heredity, and on the corelation of phthisis to the fundamental bone and nerve segments, and to the skin system, etc., I cannot but think that we must look deeper into organic law and force, than to germs, bacteria, etc. It seems likely that research will discover these or allied micro-organisms in many acute fevers and chronic states of disease. Important in biology and pathology as is their discovery, yet it is probable that they are in the main but results, and not causes. View the great facts of the life of an individual up to, say, twenty-one years of age: he has enjoyed perfect health; then he fails, and in a year dies of phthisis. If during this final year he swarm with micro-organisms, such a fact is wholly minor as a cause of his disease, when compared with those losses or changes in physical and vito-physical correlations on whose just co-ordination healthy vital growth or evolution depend. It was, however, on the ground of the gradation of series, between ague and phthisis, and between the acute type of phthisis and the chronic, that for ten years past I have treated phthisis, and those tending to phthisis, with quinine, arsenic, and muriatic acid. On the same analogy I have hypodermically injected quinine.

A conservative vital energy (part of the evolutionary force) or power exists throughout nature in individual being—be that being a grain of wheat or human animal; natural periodic exhaustion or lessening of that power happens, and the wheat crop of a province is destroyed by *rust*, or an epidemic of the class of fevers (varying in exact type in different latitudes and hemispheres) happens to man. It appears to me that we shall be on a wrong method if we seek to prevent phthisis by means based on a poison or germ theory; our aim should rather be to conserve in each individual the just vital energy. Even with our present limited knowledge there is large scope for the judgment and skill of the physician, in best applying that knowledge to the very varying type of cases of phthisis which present. But we look forward in expectation to much more than this. I lost a young woman, aged twenty-four, of phthisis, a few weeks ago. I saw her first in April, 1880; she was then weak, anæmic, and with scant menses. I could detect no change in the physical signs of her lungs; in the end both lungs became much diseased. But since her death I have seen her two younger sisters, aged twenty-one and nineteen. In neither are there physical signs of lung-disease: they have no cough; both are plump and well nourished, but they are failing; their appetites are poor, menses scant, tired easily on exertion; the facial expression of the natural vivacity and energy of their age is gone.

We know that in such cases the further progress into lung-disease is not as inevitable as is the death of the leaf in autumn, because we have often seen such cases regain health, and the varied symptoms disappear; but what one's mind longs for is to know, from the physicist, or chemist, or physiologist, what is the infinitely minute but all-determining potential difference of composition and correlation which permits the evolution of healthy lung cells and tissue up to a certain age, and not after that age.

As vital being is existent, and has evolved and is evolving in the universe, and as this being is in absolute correlation with physical and vito-physical existences, it necessarily follows that the different states or perturbations of that vital being (disease) must have definite and exact corelations in external physical existences and in internal composition.

But until the law or order or rate of the universal form of vital evolution is discovered, we can only use remedies by analogy and experience. It is worth observing that our method of treating phthisis by out-of-door life is in harmony with the evolution theory—for we thus seek to place living being in corelation or correlation with the entirety of physical existences to which it is not only related, but of which it is, indeed, an actual part. In practice, however, we must carefully remember that our patients are human beings, and not heaths. That the heath flourishes in the mountain is—that that genus is evolved, in vast periods, from other forms to its present form, in true corelation with its environment of mountain soil, air, and habitat. If we are to reap the full

good of mountain air, it must be by a gradual co-ordination of system.

Just as the astronomer, since the days of Kepler and Newton, can predicate, from the hypothesis of gravitation, the existence, size, and movements of celestial bodies; or as the chemist can predicate the existence of hitherto unknown elements by deduction through the law of Dalton—so may we expect, in the vastly more complex, but yet orderly, domain of the organic, help in co-ordinating the vital energy and growth against failure, when we have worked out a more full knowledge of the absolute "continuity" and correlations of the inorganic and organic, whose as yet unknown series is expressed by the hypothetical term Evolution.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CASE UNDER THE CARE OF DR. EUSTACE SMITH.

[For these notes we are indebted to Mr. Scott Battams, Resident Medical Officer.]

Incontinence of Urine—Great Emaciation—Diarrhœa, with Prolapse—Suspected General Tuberculosis—Death—Post-mortem—Calculus Vesicæ.

Anna C., aged six years and a half, admitted May 18, 1882, for suspected tubercular disease of the bladder and other organs.

Family History.—Father alive and well, mother also. Very stupid, and unable to give any reliable history. As far as could be made out, there was no family history of phthisis. The patient was one of thirteen children, of which six had died quite young—some of diarrhœa, some with convulsions, one with head symptoms. She was always a delicate child.

Previous History.—The child has been ill and getting worse for the past eight or ten months. Appetite capricious. She is easily tired. She was in hospital some months ago, suffering from incontinence. The urine never contained any blood. Lately she has complained of great pain in the lower part of the abdomen, and on passing water or her motions the rectum has prolapsed. She has been wasting, and her languor has increased. After the attacks of pain she has vomited several times lately. The urine sometimes stops suddenly while being passed. It is thick, and often offensive.

Present Condition.—The child very thin. There is dulness in the right supra-spinous fossa, with increased resistance. Breathing bronchial, with large clicking rhonchi both with inspiration and expiration. Dulness above each clavicle. Respiration high-pitched and bronchial. There is a double friction-sound (? pericardial), limited to the third interspace, just to the left of the sternum. Præcordial dulness reaches to the upper border of the third rib. The impulse is seen in the second and third interspaces. Arteries at root of neck pulsating visibly. Abdomen soft and supple, not distended. She had been sounded for stone at another hospital, as well as here in the out-patient department, and was again sounded after admission by Mr. Parker, but he failed to detect anything. The sounding seemed to pain the child very much, and she struggled violently. The temperature was raised. Hip-baths and a sedative were ordered.

May 23.—She continued in much the same condition until to-day. Her bowels have acted several times, the rectum coming down at one time, and not at another. Motions generally slimy and containing mucus. The abdomen is now sunken and doughy; the skin is inelastic; there is no tenderness. She vomited two or three times a greenish fluid. She died at 10 p.m., somewhat unexpectedly.

Post-mortem by Mr. Sanderson, B.A., thirty-six hours after Death.—Rigor mortis well marked. On opening the chest position of viscera normal. The right lung was bound by tough adhesions to the diaphragm and the lower two-thirds of the chest-wall; anterior edge of both lungs emphysematous. There was some difficulty in removing the right lung, owing to the adhesions. Lungs were crepitant all over on section; no tubercle; no consolidation anywhere in either of them. Bronchial glands enlarged and pigmented, but not caseous. Heart: On opening pericardium about one drachm of fluid was found; pericardium not thickened, smooth and shiny; no signs of pericarditis. There was an ante-mortem clot in the right auricle, and also in left ventricle, which latter extended into the aorta. Liver normal. Spleen healthy. Intestines healthy. Kidneys: On exposing right kidney, it was seen to be very small and boggy, and its ureter dilated and hypertrophied. On cutting into it, it was found to consist only of a dilated pelvis; its secreting substance had quite disappeared; its ureter was one inch in diameter. Left kidney was large, and not unhealthy in appearance; its pelvis and ureter were rather dilated. Bladder: Its walls were greatly thickened; its mucous coat also thickened, but not ulcerated. It contained a calculus as large as a large hazel-nut (uric acid with slight phosphatic coating).

Remarks by Mr. Parker.—Although the symptoms called prominent attention to the bladder, and induced us to examine that organ with a sound, the presence of the calculus was not detected. This is the more remarkable as the sounding was done by two members of the staff independently of each other. As regards my own attempt, I must own that the examination seemed to cause a great deal of pain, and as the child struggled I did not prolong the attempt beyond what seemed absolutely necessary. Tubercular disease of the bladder was not decided on until the absence of a calculus was thought to have been demonstrated. It is well known that a similar train of symptoms is produced by tubercular disease as by calculus. In the present case nearly all the symptoms of stone had presented themselves at one time or another. I remarked before sounding that had there been an eczematous eruption about the vulva (from urinary irritation) the symptoms might have almost been considered pathognomonic of calculus. The occurrence of persistent prolapse with bladder symptoms, intermitting or otherwise, is the most reliable sign in a female child, and ought always to lead to a careful examination of the bladder. The condition of the right kidney, as well as the hypertrophied state of the left one, suggests that the irritation of the calculus had existed a long time. It is probable that it first formed in the pelvis of the kidney, there set up mischief, and then found its way into the bladder. The child appears to have died of exhaustion caused by the long-continued irritation and pain, rather than from any changes directly due to the stone itself.

The Smell of Iodoform.—In an article "On Iodoform in Venereal Practice," the *Philadelphia Med. News*, July 22, observes:—"The chief objection to its use is the pungent, and to some persons peculiarly disagreeable, odour, which it is almost impossible to conceal. Wood charcoal, petroleum, oil of eucalyptus, glycerine, alcohol, tannin, various perfumes, and strongly odoriferous drugs, have been tried, with greater or less success, but the iodoform always asserts itself sooner or later. For ability to 'hang around' anything it is once applied to, it far exceeds the 'scent of roses' or any other scent with which we are familiar. The most effectual plan of disguising the fact that iodoform is in use about the genitals, is one employed by a practitioner of this city, who recommends such patients to spread some of the ointment on a piece of muslin and bandage a finger with it, thus apparently furnishing to all inquiring friends conclusive ocular evidence as to the source of the smell."

Excision of the Pylorus.—Dr. Van Kleef, of the Hopital de Calvaire, Maestricht, relates in the *Presse Méd. Belge*, July 23, the case of a woman, aged thirty-seven, upon whom he performed excision of the pylorus on account of stenosis, supervening on ulcer of the stomach attended with severe hæmatemesis. She had become greatly reduced in strength, and for some time past had been fed by the rectum. The indurated pylorus, when removed, measured 4½ by 5 centimetres, and a quill could scarcely be introduced into its aperture. The stenosis was due to cicatricial tissue, no sign of carcinoma being present. The operation lasted two hours, and an hour or two elapsed before the patient began to awake from the anæsthetic condition. Her recovery from the state of anæmia was slow but progressive, and two months after the operation she was able to leave the hospital, weighing 39 kilogrammes. At the date of the report, about six months after the operation, she weighed 45 kilos.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, AUGUST 12, 1882.

THE PRESIDENTIAL ADDRESS AT WORCESTER.

The honour of delivering any one of the Addresses-in-chief at the meetings of the British Medical Association must always be rather a burdensome one. It is certainly no light task to select, as the months revolving near bring the inevitable annual gathering, a subject in Medicine, Surgery, Physiology, or Midwifery, on which a man can feel justified in discoursing for an hour, more or less, to such an educated and practical audience as must be expected on those occasions. The distinction and honour of presiding, and as President giving the Opening Address, used to be especially onerous, till it became customary—much to the relief, we suspect, as a rule, of that eminent functionary—to confine the Presidential Address chiefly, if not entirely, to the history, medical and otherwise, of the city in which the Association happened to meet. This year the annual meeting takes place—or, by the time this issue of the *Medical Times and Gazette* is in the hands of our readers, will have taken place—in Worcester; and, as Dr. Strange, the President for the year, observed, the simple description of this "*civitas in bello et in pace semper fidelis*," of "its history, its curiosities, its industries, manufactures; its grand old, and yet new, Cathedral; the beauties of the surrounding country, the charm of its hills and dales, and flowing waters," might well have furnished fitting matter for his Address. But the meeting was a very special one. The Association had met in the city of its birth to celebrate its jubilee; and the occasion seemed to demand from the President something more than the usual kind of Address. The history of the Association seemed a tempting, and a very fitting, theme. And certainly the story of the formation and progress (not unchequered) of the Association, from its foundation at Worcester in July, 1832, as "The Provincial Medical and Surgical Association," with 140 members, to its development into "The British Medical Association," with its 9000 members, and its numerous British and colonial branches, could not have failed to be both interesting and instructive. But to have told well and fairly such a story within a moderate space of time would have been an extremely difficult, if at all a possible task; and, moreover, the life-history of the Association had been set forth in fulness of detail in the pages of its *Journal*, in anticipation of the jubilee meeting. The President had, therefore, to look elsewhere for a theme of discourse, and decided to speak of "the Revival and the Survival of Medicine in these Kingdoms."

Dr. Strange spoke first of the remarkable bursting forth of the repressed forces of thought and research that distinguished the decade of 1830-40, when these kingdoms were recovering from the exhaustion and stagnation caused by the mighty wars of the end of the last and the beginning of the present century. Following in the earlier footsteps of Watt, of Boulton, and of Arkwright, Stephenson and Brunel, Wheatstone and Rowland Hill, he said, were transforming at once our commercial and our social intercourse. Political enfranchisement was the necessary corollary of the desire for freedom to speak and freedom to act. "And then came the new power of combination and association." And combination, applied to the exercise of thought and to the diffusion of knowledge, resulted in the formation of "those great societies, of which the 'Provincial Medical and Surgical Association' was neither the meanest nor the least valuable." The year 1831 saw the foundation of the "British Association for the Advancement of Science;" and in the following year, Dr. (afterwards Sir) Charles Hastings established the Medical Association. Dr. Strange mentioned with due honour the names of many of the great lights of medicine in the decennium referred to; and usefully took occasion to point out their most distinguishing qualities, viz., firstly, patient research and observation of facts, and thorough conscientiousness in the use of them; and secondly, unswerving courage and truthfulness in announcing those facts to the world." He observed that their works were distinguished by "freedom from ancient prejudices, and from servility to antiquated dogmas"; and they were new also in the industry with which fresh facts were sought out. The method of research of these men, moreover, was specially praiseworthy. "No deductions drawn from a few meagre facts, warped and manipulated to fit them to a preconceived theory; but the true Baconian system honestly adopted, and no conclusions come to but such as are justified by the data at command." And Dr. Strange grows eloquent in praise of the style of such writers and teachers as Lawrence, Bell, Latham, and Watson, Gregory, Alison, and Christison Graves and Stokes. He would not disparage the style and diction of some modern authors, but at the same time "thinks their time would not be altogether wasted, if, before putting pen to paper, they were carefully to peruse and re-peruse the works of the older writers" above referred to. Some of the great works of the period spoken of were next mentioned, and Andral's "Clinique Médicale," the "Cyclopædia of Practical Medicine," and the *British and Foreign Medical Review*, were briefly noticed as among the educational forces of the time. And then Dr. Strange referred to the condition of medicine in the provinces before and during this time, and described in a few sentences the provincial physician, and the educational and social status of the provincial general practitioner, in order to show how vast has been the change for the better. We cannot follow Dr. Strange throughout even this portion of his Address, much less through the second part—that on the "Survival" of Medicine; but we must not omit to note that in his array of the various forces that brought about the revival of medicine, and the reconstruction of medical education, Dr. Strange did not forget the establishment of the weekly medical journal, and that he paid a well-merited tribute to the

energy, vigour, and courage of Thomas Wakley. As to the part played by the Association in stimulating and promoting the progress of the art and science of medicine in the last fifty years, the President might, on this occasion, have enlarged much more fully and positively, and have been forgiven, even by those who would be inclined to consider that great body to have been a natural and almost inevitable product of the last fifty years, rather than a formative force. It was an outcome of the remarkable upspringing and recreation of intellectual and social life and energy, the stirrings of which were felt before 1830, but which, as Dr. Strange points out, became wonderfully active and potent after that date. In founding the Provincial Medical and Surgical Association, Sir Charles Hastings, like the founders of the Association for the Advancement of Science, was moved by the spirit of the times. The want of some sort of combination for the increase and diffusion of knowledge, of some organised means of intercommunion, was felt by the medical profession as by other bodies, and Sir Charles Hastings recognised the need and supplied it. But it was many years before the new Association attained any marked size or vigour. It grew as the profession advanced in education, only more slowly, and in its twenty-fifth year, when its title was changed to that of "The British Medical Association," its numbers did not exceed 2000. During the last sixteen years, however—that is, since the present editor of its *Journal* came into office, in 1866-67,—the Association has lived a much more vigorous life. And the change has not been brought about by any marked increase of tendency to a power of coherence and combination on the part of the profession, but is due to the vigour and ability displayed by the editor of the *Journal*—in fact, the *Journal* has made the Association. In 1866-67 its members numbered about 2400; now, as we have before remarked, it is said that it reckons its 9000 members. It is a great and prosperous Association; and it seems to possess capabilities of becoming, if the profession so will it, a great power for good, or for evil. Our profession is a noble one, with the highest possible duties and aims; but we have grievous faults and defects, to some of which Dr. Strange directs attention; and as results of which he observes—"So, then, we see that liberty, overstepping its legitimate bounds, degenerates into licence; so, charity and philanthropy, put on to answer a selfish purpose, became that hateful thing, hypocrisy; so, truth, departed from or smothered in sophistry, becomes that still more hateful thing, a lie,"—and the profession does not attain anything like that position in the public esteem that Descartes, Lord Beaconsfield, and some other great philosophers and statesmen, have pointed to as its due. How can this state of things be amended? Can any means be found for securing united action and honourable fellowship among ourselves, and upright conduct towards each other and towards the public in all cases? Dr. Strange is very jealous, and rightly, of any State interference; but he appears to believe that the power of educating, guiding, and elevating the moral and social character of the profession may be found in the British Medical Association. He suggests that if the Consultative Council or "Senate" of the Association were made "really and perfectly representative by the more intimate communion with the branches," there might be formed from it, partly by selection by the Committee of Council, and partly by general election, a "High Court of Equity and Ethics," before which all important questions affecting professional conduct and honour might be brought up for judgment. The mere knowledge that such a court existed, by which *laches* of conduct would be investigated, would, he thinks, cause those who may be tempted to err to shrink from incurring its censure. Well, we will not venture to prophesy as to what may or may not be possible in the future; but for the present we feel that we would rather fall into the hands of the State than into the hands of an Association of the profession, guided and ruled by a powerful journal.

RECENT CHANGES IN THE REGULATIONS OF THE COLLEGE OF SURGEONS.

That portion of the medical world which is concerned with the teaching of anatomy and physiology has been somewhat agitated of late by the changes which the Council of the College of Surgeons has thought it well to make in the curriculum which it requires. First, the College proposes no longer to insist that the student shall attend two six months' courses of lectures on anatomy; it will in future be content with one. If the students agree with the College in thinking the second course superfluous, the effect of the change will obviously be to take from the classes of the lecturers on anatomy nearly one-half the students who at present compose them.

The lecturers think that the proposed alteration is a bad one; and they have drawn up a memorial, giving seven reasons why the present system should be maintained. Their first argument is their weakest. It is, that "attendance on lectures is a valuable discipline for the students, many of whom come up at a very early age, and cannot safely be left without systematic guidance and instruction." If by this be meant that the *lectures* are a valuable discipline, this, as we shall again remark presently, entirely depends upon the kind of lecture given. But if it be the mere fact of *attendance*—of having to enter a lecture-room at a regular hour on regular days, and sit there for an hour,—we must confess that we look on the value of such a discipline as this as something very small, and think that some better ground for the retention of the two courses must be shown. Their second and third propositions are truisms which no one will dispute, although it may be doubted how they apply to the question at issue. They come to this: that anatomy is very important, and hard to learn. The fourth reason states, first, that "the time now devoted to the study of anatomy is no more than is necessary"—an assertion to which everyone will agree; and then, that, in the lecturers' opinion, "under present arrangements this time is distributed between lectures, demonstrations, and dissections, in the proportion which is most advantageous to the student." To admit this latter clause is of course to admit the whole question. Fifthly, they state that a complete course of lectures cannot be given in six months; and this objection is amplified in their sixth paragraph, in which they say they cannot adapt a single course both to first and second years' students; it will either be too elementary for advanced students, or not simple enough for beginners. They reserve for the last what seems to us the strongest of their reasons against the change, viz., that it will only operate in favour of the least industrious students. The diligent will attend without compulsion; and every compulsory regulation that is abolished is so much encouragement to the idleness of those for whom alone compulsion is necessary.

The question, it will seem, resolves itself into two parts: first, the value of the two courses of lectures; second, that of compulsory attendance on them. As to compulsion, everyone would rather do without it, and everyone will admit that were all students diligent there would be no need of compulsion, nor even perhaps for a prescribed curriculum. But all students are not diligent, and therefore it is the general opinion of those to whom the education of medical men is entrusted, that it is desirable to compel students to attend at certain times and places in order to be taught. No

compulsion can make them learn; it can bring them to the Pierian spring, but can do nothing more. Assuming the soundness of the opinion stated by the lecturers in the fourth paragraph of their memorial, viz., that the time given to anatomical study is at present divided in the best possible manner between lectures, demonstrations, and dissections, we are quite at one with them, that relaxation of compulsory requirements only tends to make idle men still more idle, and does not affect those who would work even if they were not obliged to do so.

The real point at issue, as it seems to us, is whether the time at the student's command for anatomical study is distributed to the best advantage under the present system. The student learns anatomy in three ways—by his own dissection, guided and supplemented by reading: by the personal teaching of the demonstrator; a teaching which differs essentially from that of the lecturer, in that the student is taught personally, not collectively, his individual difficulties being explained to him, his industry encouraged, or his idleness rebuked: finally, the lectures. Now, of these the most important and necessary is dissection, in which the student learns by seeing and handling the structures, with the situation, look, and feel of which it is necessary that he should become familiar. The demonstrator's function is only to help the student who is dissecting. If the lecturer does nothing more than repeat to a large class the kind of lesson the demonstrator gives to small ones, or repeat orally what the student can read in the ordinary text-books, it is clear that, whatever the value of lectures in insuring the regular attendance of students at appointed hours, the student might dispense with them as a means of learning anatomy; his time would be much better spent in dissecting. It is no doubt true, as the lecturers say, that constant repetition is necessary in the teaching of a science consisting so much of detail as does anatomy. But at the same time, if the lecture is nothing more than a repetition, we think that even such repetition is more advantageously made in the dissecting-room, to classes small enough to permit every member of each class to see the structures spoken of.

It is impossible, if we consider the bearing of the College resolution, to help looking at it as an indication that the Council do not think as highly as they might of the anatomical lectures usually given at the English medical schools. And the reason of such an opinion, if it exist, is not far to seek. It is familiar to everyone that, with very few exceptions, the lecturers on anatomy are not men who have given any exceptional attention to it. They have, as a rule, been distinguished students, whose diligence and ability have gained them an appointment on the staff of a hospital, and who teach anatomy because it helps them to maintain themselves until practice comes. They are, of course, able and accomplished men, who know anatomy, can teach it, and have been and are excellent demonstrators. But, for all that, their greatest interest, and therefore their best strength, is not in it. They aim at success in other fields, and anatomy is merely a stepping-stone to a goal beyond.

To be a real advantage to the student the anatomical lectures should give him instruction which he cannot get in any other way. The bare facts of topographical anatomy cannot excite any very vivid interest, nor do they call for the exercise of any higher mental faculties than mere pictorial and verbal memory. It is when they are illumined by the light thrown upon them by comparative anatomy and morphology, and by their applications in the practice of medicine and surgery, that the student comes to see that anatomy is something more than a collection of facts which for a time it is necessary to remember. With all respect to the anatomical lecturers, we think that they might well give the student more than mere "frequency and variety of repetition."

In short, we are among those who are old-fashioned enough to think that, taking medical students as they are, not as they might be, it is for their interest that they should be obliged to regularly present themselves to be taught, and that it should not be left to their choice when and how they will pick up their knowledge. We think that anatomical lectures should not repeat only the text-books, but add to them, and give a broad and philosophical view of the subject, showing its solidarity with other branches of natural science, such as the student cannot get for himself by dissection, and such as cannot be included in the ordinary manuals. If they do this, we do not think students will regard two courses as an excessive requirement. But if the lectures are a mere repetition of the text-books, then we are inclined to think that, with the Primary looming before him, the second year's student may be left to judge for himself whether it is worth his while to hear over again that with which he is probably already familiar.

THE ADDRESS IN MEDICINE AT WORCESTER.

Dr. Wade, of Birmingham, who had the honour of being selected to give the Address in Medicine at the Jubilee Meeting of the British Medical Association, wisely refused to obey the natural impulse to devote the occasion to a review of the advances made in the direction of medicine during the last fifty years. He recognised that the time at his command would be utterly inadequate to even the baldest completion of such a task; while, moreover, a bare statement of facts—or rather, of what in such a history may seem to be facts—would be unsatisfactory and uninteresting alike to himself and to his audience. He contented himself, therefore, with picking up for comment some few of the "actual facts" of medicine as it existed when the Association he was addressing was founded, and some others of later date; and in carrying out this intention he treated his audience to an admirable, philosophical, and highly suggestive address.

Dr. Wade began by warning us against studying the mistaken practices of bygone years in a spirit of vainglory or disparagement. We should do so only with the strict and definite purpose of improving ourselves. In looking back on the records of the past, it will be seen that current errors were shared oftentimes by men who were in the front rank of the profession, and who would be in the front rank now if they now existed; that we may find even yet much to learn from their precepts and their practice; and that, great as have been the additions to our knowledge, all the wisdom of those days has not been exploded or superseded. A warning by no means unneeded. He then relates, very instructively and clearly, the ever-interesting and marvellous story of the utter fall of the, for such a length of time, all-pervading method of treatment by blood-letting. But few practitioners, comparatively, have any clear idea of the extent to which that treatment prevailed. Dr. Wade gives, in proof of its prevalence some fifty years ago, a quotation from a contemporary author:—"Blood-letting," this writer said, "is not only the most powerful and important, but the most generally used, of all our remedies. Scarcely a case of acute, or indeed of chronic disease occurs, in which it does not become necessary to consider the propriety of having recourse to the lancet, or to estimate the effects of blood-letting already instituted." And Dr. Wade adds, very truly, that in order to obtain a full impression of this means of treatment, it is necessary to read, one after another, the records of cases—medical, surgical, traumatical, and obstetrical—in which bleeding from the arm was practised; and to note further the fact that the

chief resource of preventive medicine even, in those days, was to "let blood" from the arm every spring and fall. How was this universal practice so utterly overthrown that scarcely a practitioner in these days has seen venesection performed, and that even local blood-letting—by leeches or cupping—is so rarely practised? Blood-letting, be it remembered, was no transient or fashionable mode of practice, but the "well-established practice of centuries, which had withstood not only the ravages of time, but repeated volleys from the batteries of wit and satire." Time had not undermined it, nor had that potent weapon, ridicule, had any destructive effect upon it. What, then, killed it? Dr. Wade first considers in a philosophic spirit the predisposing causes of the change. The intellect of the period was coming to distrust "violence, harshness, the darker shades of expression, from the education of the young, from the treatment of the insane, from the punishment of criminals," and to substitute for those time-honoured processes a rational moderation. The reconsideration of ancient dogmas was the order of the day; and the medical profession caught something of the spirit of the time. Then another influence began to come into play—the recognition of the *vis medicatrix naturæ*; and the consideration of this influence leads Dr. Wade into an able and eloquent defence of "expectant medicine." It is not, as it has been derisively described to be, the art of laboriously doing nothing—of trusting to Providence; it is not a lazy, shiftless mode of shirking responsibility; but, rightly understood, it necessitates, he says, "a constant, anxious, and laborious study and observance of the tricks and turnings and vagaries of disorder and disease. So far from this system, when intelligently followed, leading to a disbelief in the potentiality of drugs, it seems to me to do exactly the opposite. Having learnt with more accuracy and greater fulness the natural progress of disease, we are the better able to estimate the extent to which the direction of that progress is capable of deflection by the administration of remedies; and it passes my comprehension how any person who has intelligently and dispassionately watched the progress of disease, when subjected and when not subjected to drugs, can refuse to believe that we hold in our hands gigantic forces to oppose to those of an aberrant Nature." This system may be, of course—and, like all systems, has been—abused. Mistakes in practice originate mainly, Dr. Wade remarks, from one of two sources. The first is ignorance of the teachings of science, or inattention in the application of them to the case in hand; the second is a too rigid adherence to the dictates of science. Both errors must be carefully guarded against, and we must confess to ourselves "that medical science, as a whole, is imperfect; that the individual sciences of which it is composed are imperfect; that of these the science of therapeutics is the most imperfect; and that we, the agents who have to apply these sciences in our daily life, are imperfect." All our systems of treatment, all our remedies, are liable to misuse; some much more than others, and most in more ways than one. Blood-letting was misused enormously. This gross abuse was first gravely and seriously attacked by Marshall Hall in 1820. In 1829 he renewed his attack with larger forces and more matured power. In 1830 he instituted experiments on living animals, in order to ascertain the effects of loss of blood in circumstances entirely free from the complication of disease, or other unusual condition of the system, and to ascertain with greater accuracy and distinction the various organic changes induced by loss of blood; and with the view of determining some other points in the controversy. In 1836 he republished his views on blood-letting in a still more extended form, and enforced by the results of his experiments; and within a few years blood-letting was no longer practised, though Marshall Hall's object all along had been the regulation, not the abolition, of bleeding. Dr. Wade of course reminded his hearers that this rapid and wonderfully thorough change in practice has been attributed to a change of type in disease; and that this view has been supported by very able and distinguished men. The causes of the change were no doubt complex; but the most prominent and most provable, at any rate, were the abuse of the means in question, and Marshall Hall's demonstrations of that abuse.

Dr. Wade, in speaking of the misuse of drugs, and of the various pitfalls that beset our path in the search after improved methods of treatment, illustrates his observations by two examples—the rise and fall of the treatment of delirium tremens by heavy doses of digitalis; and the treatment of acute disease by alcohol in large quantities. We cannot but think that in the latter instance he has, certainly unintentionally, done Dr. Todd scant justice. We are not prepared to admit that "the error of Todd arose mainly from that fertile source of medical—we might truly say, human—error, hasty generalisation." We should rather say that his error, if he erred, consisted in placing in the hands of the profession, and enforcing with irresistible power the use of, a means of opposing disease, in the employment of which great judgment, acute powers of observation, and constant watchfulness were especially needed to avoid abuse. These qualities are not always to be met with, nor is constant skilled watchfulness nearly always possible. The inevitable consequence was that Todd's teachings in this matter were misused and abused. Dr. Wade tells well how and why this happened, and he freely admits that there is no acute disease in which special circumstances may not arise to necessitate the use of alcohol in small, or in large, or even in very large doses. We have been led to linger over Dr. Wade's very able Address longer than we intended. There are in it many more things worthy of note and comment, as, for instance, Dr. Wade's contention that in present medical practice, "on a very large scale, and in both chronic disorder and organic disease, the physiological basis of treatment is too often unduly subordinated to the restorative basis of treatment"; but, with a warm recommendation of it to a careful perusal and study, we must here leave the Address to our readers.

THE WEEK.

TOPICS OF THE DAY.

WANT of space last week compelled us only briefly to notice the awards made by the Distribution Committee of the Hospital Sunday Fund. The amounts allotted to the eighteen general hospitals were specified; the next group dealt with was the special hospitals, and amongst these it will be found that the City of London Hospital for Diseases of the Chest, Victoria-park, is to receive £787 10s.; Hospital for Consumption, Brompton, £1068 15s; North London Consumption Hospital, Hampstead, £258 15s.; Royal Hospital for Diseases of the Chest, City-road, £202 10s.; Royal National Hospital for Consumption, Ventnor, £337 10s. Hospitals for children—Alexandra, Queen's-square, £168 15s.; Belgrave, Cumberland-street, Pimlico, £135; Cheyne Hospital for Incurable Children, Chelsea, £112 10s.; East London, Shadwell, £506 5s.; Evelina, Southwark-bridge-road, £450; Home for Sick Children and South London Dispensary for Women, Sydenham, £101 5s.; Home for Incurable Children, Maida Vale, £45; Hospital for Sick Children, Great Ormond-street, £731 5s.; North-Eastern, Hackney-road, £225; Victoria, Queen's-road, Chelsea, £365 12s. 6d. Four lying-in hospitals—British, Endell-street, £45; City of London, £95; General, York-road, £84; Queen Charlotte's, £281.

Seven hospitals for women are also to receive awards, including the Soho-square institution £365, and the Waterloo-bridge-road establishment £258. The London Fever Hospital, Liverpool-road, is to get £675, and the Royal London Ophthalmic, Moorfields, £337. Fourteen convalescent hospitals are included in the list, and seven cottage-hospitals. These, with fifty-two dispensaries and four institutions, complete the somewhat lengthy list. The Committee further reported that the number of deputations invited to confer with them, and to offer explanations on matters of apparently unsatisfactory character, was gradually diminishing. Seven invitations only were issued this year, as compared with eleven in 1881. The 4 per cent. on the gross amount deducted for surgical appliances, realised, as we before stated, £1380. It was resolved that any amounts paid in after the preparation of this distribution-list should be carried forward to the credit of the next year's Fund.

The Medical Defence Association recently summoned John Henry Friend, of Dean's-court, Goswell-road, at the Clerkenwell Police-court, for having wilfully forged a false certificate, or declaration, under the Births and Deaths Registration Act, concerning the deceased child of Anne Smith. A second summons charged him with having made a false statement or representation with reference to the body of the same child; and a third summons accused him of having unlawfully procured the burial of the body of the deceased under the false representation that it was stillborn. The prisoner pleaded guilty to the first two charges, and not guilty to the third, which was afterwards withdrawn. It was shown that the deceased was the illegitimate child of Anne Smith by the defendant. A medical man was called in to attend the mother at the birth, which took place on July 1, but the child died. An undertaker was called in, and he informed the defendant, who stated that the child was stillborn, that a certificate of death must be obtained before the burial could take place. On July 3 defendant gave the undertaker what purported to be a certificate signed by Dr. Clift, of Central-street, Old-street, who is a duly qualified medical practitioner. The magistrate inflicted a penalty of £5, or one month's imprisonment on each of the two charges, and the fines not being paid, the defendant was removed in custody.

What to the non-legal mind would appear to be an absurdly narrow interpretation of an Act of Parliament has led to a startling failure of justice, and helped to establish a dangerous precedent for the escape of wrong-doers. John Longland, a milk-seller, of Crown-street, Soho, appeared to an adjourned summons for having sold a quantity of milk adulterated with water. Mr. Moore appeared for the defendant, and at the first hearing raised the question whether the Act had been fully complied with, the defendant not having been told that the milk would be analysed by the "public analyst." The Sanitary Officer for the Parish of Bethnal Green said that he told the defendant that the milk would be sent to "the analyst," and contended that that was a compliance with the Act. Mr. Moore now produced a case upholding his objection. This was an appeal in the Exchequer, before Mr. Baron Kelly and other judges, from a conviction by the justices of Gloucester, and the appeal was upheld on the one point that it was "not enough for the purchaser to say that he had purchased the article for the purpose of analysis." Mr. Hannay said he had looked up the case referred to, and was certainly surprised that the Act had been interpreted so strictly, but in the face of the ruling of the superior court he must dismiss the summons. The omission of the word "public" in the verbal warning given to the seller was fatal, and this point cannot be too carefully remembered by all parish officers.

A remarkable case of crime is reported to have taken place recently in France. A priest was convicted at Perpignan of the murder of two of his parishioners (Marie and Rose Fouda), who had shown him great kindness, and over whom he had acquired great influence. His object was to procure funds for eloping with a schoolmistress of whom he was enamoured, and who, on account of her relations with him, had been removed to a parish at some distance. He induced Marie Fouda to drink a decoction of hellebore root, and she expired in a few hours, but her death was at first attributed to heart-disease. A month afterwards the other sister died, having made a will in the prisoner's favour. He had poisoned her with prussic acid. While in prison awaiting trial he wrote a confession of both crimes, but at the trial he denied his guilt. He was, however, convicted and sentenced to imprisonment for life—as severe a sentence as could perhaps be looked for in France, considering the circumstances.

It is stated that the change in Sir Garnet Wolseley's arrangements for departing to assume command of the expeditionary force in Egypt was due to the advice of Sir William Jenner and Sir James Paget, and was the result of a consultation which was held on his case. These gentlemen decided that, to avoid the fatigues of the long overland journey to Brindisi, it would be best for him to travel to Egypt by sea, and he accordingly took passage, at the last moment, in the transport *Calabria*, which had been selected to convey a portion of the Household Cavalry to the seat of war. It may be fully expected that the rest during the voyage, the sea air, and a dry climate, will quickly put to rout the attack of malarial fever from which Sir Garnet was said to be suffering; but presumably nothing but the urgency of the situation would have counselled his departure for Egypt, where he would arrive at nearly the hottest season of the year, in a state of health scarcely calculated to withstand the combined influences of anxiety and climate.

The Select Committee of the House of Commons, appointed to report on the working of the Contagious Diseases Acts, have at length agreed upon their final report, which recommends the maintenance of the Acts. Mr. Stansfeld presented a voluminous draft report in favour of their absolute repeal, but this was rejected, and the report of the chairman, Mr. O'Shaughnessy, adopted by a majority. All the members of the Committee were present, with the exception of Mr. Hanbury-Tracy. After enumerating the grounds upon which their recommendation is based, the Committee remark that they cannot recommend the repeal of the Acts; that, in fact, if practical results were alone to be considered, the Acts might be extended with excellent effect. But, however intrinsically useful any system might be, it was often unwise hastily to press for its extension while any considerable body of opinion, even though in a minority, condemned it. The Committee could not, therefore, having regard to the character rather than to the extent of the opinion hostile to the Acts, recommend their extension. The report concludes with certain recommendations, made with the object of facilitating the administration of the Acts, and of preventing juvenile prostitution.

At the Clerkenwell Police-court, George Imeson, of 172, Caledonian-road, N., was summoned by the Chemists and Druggists' Association of Great Britain, for having, on July 20, sold by retail, contrary to the provisions of the Sale of Poisons Act, a certain poison, to wit, laudanum, the bottle containing which was not distinctly labelled with the name of the seller. It was proved in evidence that on the day named the Assistant-Secretary to the Chemists and Druggists' Association went to 172, Caledonian-road, which is a chemist's shop and post-office, and purchased twopenny-

worth of laudanum, the defendant serving him. The bottle was labelled with the name of Saunders and Co. Mr. Alger, rate-collector, proved that the defendant had represented himself to be the occupier of the premises, and paid the rates. For the prosecution it was submitted that there had clearly been an infringement of the law, as "Saunders and Co." did not appear to have any real existence, and that defendant was not a certified chemist, and had no right to deal in poisons. For the defence it was contended that the defendant was simply acting as the agent of Messrs. Saunders and Co., and that the prosecution had failed to show that such a firm had no existence. The magistrate said if the defendant had been acting as the agent of Saunders and Co. it would have been very easy for him to produce evidence of the fact; he was clearly of opinion that there had been an infringement of the law, and he imposed the full penalty of £5 and costs, or one month's imprisonment. The money was paid.

The Royal Commission on Metropolitan Sewage Discharge met again last week. There were present Sir John Coode, in the chair; Dr. de Chaumont, F.R.S.; Professor Williamson, F.R.S.; Dr. Stevenson; Mr. J. Abernethy, F.R.S.E.; and Dr. W. Pole, F.R.S., secretary. The examination of witnesses for the complainants was proceeded with. The Commission will take no further evidence until Tuesday, October 24, but, in accordance with the terms of the Commission, on Tuesday last the Commissioners inspected the River Thames in the neighbourhood of the Barking and Crossness sewage outfalls, a steamer being kindly placed at their disposal by the Conservators of the Thames. There were present Sir John Coode, Dr. de Chaumont, F.R.S., Dr. Stevenson, and Mr. J. Abernethy, F.R.S.E.

The preliminaries for despatching 15,000 men to a foreign country must seem to outsiders to be never-ending, and undoubtedly a vast amount of work has to be done before even such a small force can be placed in the field, though whether the Government works as quickly as private enterprise remains open to question. At any rate, since we last wrote on the subject a large proportion of the force has been embarked, and by the time these lines are printed the whole of the expeditionary force will be *en route*. The hospital-ship *Carthage*, which is lying in the Albert Docks, has excited a considerable amount of attention: her hull is painted white, by which means it is said that the internal heat is reduced by five degrees; and she has been fitted with a Bell-Coleman cold-air refrigerator for the purpose of preserving provisions, cooling water, and making ice. This is the first time that one of these machines has been used for hospital purposes, and it is hoped that it will prove a source of great comfort to the invalids on board. Amongst the items of intelligence received from Alexandria it is reported that in the recent rather severe affair of outpost fighting the ambulance of the 38th Regiment worked very well under the superintendence of Surgeon Johnstone, of the Medical Department, who attended all the wounded. The ambulance of the Rifles brought in six of the enemy's wounded, two of whom died during the same night.

THE WAYNFLETE PROFESSORSHIP OF PHYSIOLOGY.

We regret to hear that a difficulty has arisen in carrying out the election to the new chair of Physiology in the University of Oxford. The electors were to have met on the 9th inst., but some unfortunate informality occurred in the issuing of the required notices to the electors, and the meeting has been deferred. One, at least, of the electors, and one whose voice ought to have great weight in the matter of the election—the Linacre Professor of Human and Comparative Anatomy—was abroad when the meeting was summoned, and he has issued a strong protest against the proceedings which have taken place in his absence and without his cognisance. It is a very great pity that there should have been any avoidable delay in filling up the new chair, when the President and Fellows of Magdalen College had shown such a praiseworthy spirit in promptly providing the full endowment of it; and there is scant time between this and October for the occupant of the chair to make his necessary preparations. Meantime there is only one candidate for the appointment—Professor Arthur Gamgee,—but this has nothing to do with the delay in the election; and we do not think that any more fitting and suitable candidate could have come forward. When noticing, on June 17, the establishment of the Waynflete Professorship of Physiology, we ventured to point out the kind of man needed for the post, and we said, "the Professor should be a large-minded enthusiast, an able teacher, a thorough believer in the importance of his work, of intellectual force enough to impress the University with the importance of it, and of such general character and culture as will make him acceptable to, and a power in, University society." We believe that Professor Gamgee satisfies these requirements; and that his appointment to the chair at the time notified for the election would have met with general approval and acceptance.

THE VICTORIA UNIVERSITY.

In the House of Commons, on the 8th inst., the Vice-President of the Council was asked whether it was intended "to place the Victoria University, Manchester, without delay, on the same footing as the older universities with regard to the granting of medical degrees," in accordance with the recommendation of the Royal Commissioners on the Medical Acts. In reply, Mr. Mundella stated that he understood that an application was about to be made to Her Majesty in Council for a supplemental charter to enable the Victoria University to grant medical degrees, and that the initiatory steps would be taken at the usual meeting of the Court of Governors in November. When the petition is received it will be submitted to the Queen at the next ensuing Council.

HOW INFECTIOUS DISEASES ARE SPREAD.

Last week we cited an instance from the records of Cork-street Hospital, Dublin, of gross carelessness in conveying patients ill of scarlet fever by rail and road in public vehicles. This week a no less glaring example of the infringement of the laws of health, nay, rather of the dictates of common sense, is reported from the same institution. A woman, mother of a family, falls ill of typhus fever in a tenement house. When her sickness has already lasted several days, she walks a considerable distance to her mother's house, where for the first time she is seen by a doctor, who certifies she has "fever," and writes an order for her admission to hospital. Either through ignorance or through carelessness, the doctor omits to tell the patient how she is to get to hospital. Accordingly, she sets out to walk, but getting tired, tells a hackney cabman that she is "after her confinement" (which is true, she having been confined *four months previously*), and so she is conveyed to hospital. Fortunately, the cabman was detained there, and obliged to have his cab disinfected. Meanwhile, the fever spreads in the tenement house, from which in a couple of days a little girl, covered with maculæ, is carried in the arms of a friend across the city to the hospital. Lastly, the husband of the first patient stricken by the fever, goes to see a general practitioner at his house, and is then allowed to walk, first to one hospital and afterwards to Cork-street Fever Hospital, on the sixth or seventh day of typhus.

THE PARIS WEEKLY RETURN.

The number of deaths for the thirtieth week of 1882, terminating July 27, was 925 (546 males and 379 females), and among these there were from typhoid fever 34, small-pox 7, measles 19, scarlatina 6, pertnssis 1, diphtheria and croup 38, erysipelas 9, and puerperal infections 9. There were also 46 deaths from tubercular and acute meningitis, 168 from phthisis, 18 from acute bronchitis, 49 from pneumonia, 115 from infantile athrepsia (34 of the infants having been wholly or partially suckled), and 45 violent deaths (34 males and 11 females). The mortality of the week is less than the mean of the four preceding weeks, and that from epidemic diseases (with the exception of diphtheria, which has increased from 28 to 38 deaths) has continued to decline. Persons of above sixty years of age, as usual at this time of year, exhibit a much slighter mortality; for while during February there were registered from 350 to 400 of this group per week, the present week has only furnished 160 deaths. This result is conformable to the statistical law that the summer season is favourable to persons of advanced age, while it is prejudicial to early infancy. The births for the week amounted to 1235, viz., 648 males (479 legitimate and 169 illegitimate) and 587 females (451 legitimate and 136 illegitimate): 90 infants were either born dead or died within twenty-four hours, viz., 62 males (43 legitimate and 19 illegitimate) and 28 females (16 legitimate and 12 illegitimate).

TYPHUS FEVER AT BOLTON.

The monthly report of Mr. Edward Sergeant, Medical Officer of Health for Bolton, for the month of June last, records a rather severe outbreak of typhus fever as having occurred in that locality. The death-rate for this period was considerably lower than the average for any of the previous months of the year, although, as compared with the corresponding period of 1881 (which was exceptionally healthy), it showed an excess of nearly 7 per 1000. Since the last report, however, an outbreak of typhus fever occurred, which, Mr. Sergeant believes, was introduced from a village near Tuam, in Galway. The disease was, fortunately, entirely confined to two streets in Great Bolton, and its spread is clearly traceable. On the occurrence of the first case, on June 19 last, the gravity of the disease was fully recognised, and no pains were spared to prevent, if possible, the spread of an outbreak so unusually malignant. Effective means of isolation and disinfection were taken, and many of the patients were at once removed to the fever hospital. The symptoms were, as a rule, very marked, and of the worst character, and the majority of the cases terminated fatally within an unusually short time. In eight out of the eleven cases that occurred the disease ended fatally. It is possible, Mr. Sergeant thinks, that the high rate of mortality may be partly attributed to the disease having been introduced among people of low vitality owing to their overcrowded mode of life. Steps were at once taken to thoroughly disinfect the houses in which the outbreak occurred, and at the date of the report being issued no fresh cases had come under notice. The initial case was that of a labourer who left his home at a village called Queen's Fort, near Tuam, the day after the death of a brother from supposed typhus; Mr. Sergeant at once ordered the removal of the patient to the fever hospital, and he has since recovered.

THE METROPOLITAN ASYLUMS BOARD.

The last fortnightly meeting before the summer recess of the Managers of the Metropolitan Asylums District was held on Saturday last. With reference to the case of the man who, whilst suffering from small-pox, was allowed to proceed from Guy's Hospital through the streets to Stockwell, the Stockwell Committee presented a report expressing their opinion that it was highly desirable and necessary that every general hospital should provide an isolation-room, in which persons would be temporarily detained who were suffering from contagious disease, until such time as they could be removed in an ambulance to a hospital for treatment. The Committee also expressed their opinion that the difficulties attending the removal of such patients would be greatly diminished if the simple certificate of the medical officer of the hospital were sufficient to insure the admission to the infectious hospitals under the control of the Asylums Board; and proposed that a recommendation to this effect should be forwarded to the Local Government Board. The report was received, and its recommendations adopted. The returns from the various small-pox hospitals showed that at Homerton 9 had been admitted, 1 had died, and 9 had been discharged, leaving 14 under treatment, and 26 beds available. At Stockwell, 2 had been admitted, 1 had died, and 7 had been discharged, leaving 8 under treatment, and 112 beds available. On the *Atlas*, now closed against the reception of small-pox patients, 3 had been admitted, 1 had died, and 27 had been discharged, leaving 42 under treatment. At Deptford, 9 had been admitted, 1 had died, and 34 had been discharged, leaving 79 under treatment, and 221 beds available. These figures, compared with those of the previous fortnight, showed a decrease in the total number remaining under treatment of 58. The returns from the two fever hospitals showed that at Stockwell 48 had been admitted, 4 had died, and 29 had been discharged, while 155 remained under treatment—142 scarlet fever and 13 enteric fever cases. The number of beds available was 73. At Homerton, 40 had been admitted, 6 had died, and 7 had been discharged, leaving 161 under treatment, of whom 134 were scarlet fever and 27 enteric patients, and there were 87 beds available. The total figures, compared with the previous fortnight, showed a decrease of 17.

Modified Warburg's Tincture.—Messrs. Fairchild and Co., of Fulton-street, New York, have produced a modified Warburg's tincture by replacing the expensive quinia sulphate by cinchona sulphate and cinchonidia sulphate with purified chinoidine, of each three and one-fifth grains to the fluid ounce, thus enabling the dispenser to sell this valuable preparation at the low price of twenty-five cents per ounce. When the reduced price is taken into account, the substitution of the cheaper alkaloid for quinia will not be regarded as a disadvantage by physicians who have tested the efficacy of these alkaloids in general practice, since experience proves that in the great majority of cases they are competent to cure malarial affections with great promptness. —*Louisville Med. News*, July 22.

Beef-Tea.—We had occasion to observe a short time ago that our long-prized and extensively employed beef-tea was, according to the recent opinion of some physicians, of no more value than urine, which it was said very closely to resemble in composition. It is more pleasing for us now to state that, according to the researches of Kobert (*Archiv für exper. Pathologie*, B. xv., S. 22), which have been conducted in the laboratory of Schmiedeberg, at Strasburg, the kreatin which exists abundantly in all extracts of beef has a remarkable effect on the muscular system, inasmuch as it increases its actual power and greatly extends its capability of continuous work. His experiments were made on frogs, and of many substances tested, besides kreatin, only hypoxanthin and cafein possessed a similar action; and hypoxanthin is likewise a constituent of beef-tea. Beef-tea, therefore, if not so highly nutritious as it is generally assumed to be, is yet not so entirely useless as some observers would have us believe. The feeling of strength which its employment gives must, apart from its actual value as a nutrient, be of great service in the treatment of the sick and convalescent.—*Phil. Med. News*, July 22.

THE BRITISH MEDICAL ASSOCIATION JUBILEE MEETING.

(From our Special Correspondent.)

WORCESTER—at once a city and a county—seems alive to the importance of this meeting, which is now being held within its walls. Its streets are decked with bunting of many colours, and a gay welcome and splendid weather awaited such visitors as came to do honour to the Jubilee Meeting of the British Medical Association.

As public work did not commence until 8 p.m., the early arrivals had opportunity of making themselves somewhat at home with the various places of meeting; of studying the topography of the streets and the public buildings, many of which are of ancient date. I find that the inhabitants are proud of the great antiquity of their city. For a motto they have "*Civitas in bello et in pace fidelis*," given to them for their loyalty at the memorable battle which took place here some 250 years ago.

It boots not here, fortunately for me, to discuss whether the city was or was not founded by Constantius Cæsar; still less to which of the bearers of this celebrated name—and there were several—the honour is due, even if a Constantius were the founder; neither can a writer for a medical journal be expected to enter into the arguments relative to the etymology of the word Worcester. Let it suffice to say, I incline to the tradition which teaches that it is probably a corruption of *Weogorna Ceastre*, and that the place to which the Saxons gave this name is now occupied by this present city of Worcester.

There is going on at the present time an exhibition of fine arts, manufactures, and industries of the county, which gives those interested in such matters a good opportunity of seeing under one roof what the county is capable of doing in this direction. Many old works of art and of historical interest—including old charters of the city, granted by Richard I. and subsequent kings—may be seen here. Also carpet-making—the entire process of converting raw wool into the manufactured article.

To make a rough guess, I should think that some 600 or 700 visitors have already arrived and enrolled themselves. Following the custom of some years, a special service in the Cathedral, with a sermon from the Dean of Worcester, inaugurated the public proceedings of the Association. This was very largely attended. The Dean's sermon dealt with the relation of science to religion, and on the existence of a personal God.

The first general meeting took place in the Guildhall at eight o'clock on Tuesday evening. Owing to the peculiar shape of the room—a very long, narrow one, with the platform at one end—many parts of the President's Address were inaudible. There was a good deal of going and coming at the far end of the room, which disturbed even those who had places well forward. The Address will doubtless appear in another part of the paper. I need only say, therefore, that it will rank among the best that have been delivered on these occasions, and that it was greatly enjoyed by those who were fortunate enough to hear it.

The question of homœopathy, recently discussed in some branches of the Association, and "unfortunately mooted" in the Addresses in Medicine and Surgery at the annual meeting at Ryde, was next touched on. Mention was made of a memorial which had been presented to the Committee of Council from one branch, demanding the *expulsion* from the Association of a member, on the ground of his profession of homœopathy. The Council did not and could not accede to this extreme measure, as drawing too much attention to the offending brother, and helping to give him a wider notoriety. The Council, however, had taken—so the report continued—every precaution to prevent the entrance of such men into the Association. Against perversion to homœopathy *after* admission they were powerless, except by the expulsion of such offenders. The Council were anxious to hear what the bulk of the Association thought on this matter.

The report of Council, with financial statement for the past year, was then read by Mr. Fowke. In it he referred to the duration and numerical strength of the Association, and pointed out how, through its means, medical science and literature had been promoted, medical politics influenced, and the social character of the profession improved. This had been accomplished "by the unselfish voluntary labours" of a large number of associates. The personal influence of the founder, Sir Charles Hastings, was duly appreciated and recognised. The work of the Scientific Grants Committee, the influence of the *Journal* of the Association, the advantages of the annual gatherings of the members in promoting professional interests and friendly feeling, were each in turn referred to and extolled. As regards the finances of the Association there was good reason for self-congratulation, for no less a sum than £12,000 was now invested in the names of trustees. During the year 715 new members were elected, making a total of 9563. It was also mentioned that a bust of the founder of the Association would be presented to the city of Worcester. It has been executed by Mr. Brock at a cost of 150 guineas.

A long balance-sheet next followed.

Mr. Nelson Hardy was asked to move the adoption of the report, which he proceeded to do. Instead, however, of doing so in the terms of the formal resolution, he made an addendum of his own to the following effect:—"That the profession of homœopathy or of any other special mode of treatment" should *ipso facto* disqualify for membership. This was seconded by Dr. Fitz-Patrick (Liverpool), whereupon Mr. Husband (York), in an indignant speech, called Mr. Hardy to order for departing from the usual custom in moving a resolution. If any addendum were made at all, he said, it must of course come as an amendment, and could hardly be made by the man moving the adoption of the report. A stormy and somewhat unseemly discussion followed—a discussion which did not always confine itself to the real subject-matter. Dr. Dicks (Hull), in speaking to the addendum, pointed out—and, it seemed to me, with great truth—that the Committee of Council have no power to refuse admission to any legally qualified *male* person. Certain by-laws at the incorporation of the Association had been allowed to lapse, and all that was required was to reinsert them. Then there would be no need to *expel* members, for on acting contrary to those by-laws they would cease to be members, and their names would be dropped from the list. The feeling against allowing homœopaths to be members was unanimous and strong. Would it not be well to have a roll, which each member on admission should be required to sign, subscribing to a by-law, the infringing of which should cancel membership at any moment?

Dr. Milner Fothergill was then called to move the resolution which stood in his name, viz.:—That the Editor of the *Journal* of the Association shall be elected for a period of five years, but shall be eligible for re-election for a like period. Not answering to his name, Mr. Wheelhouse announced that Dr. Fothergill had applied to have his motion brought on at another time, but that no other time would be given. It seemed to me that he made the announcement with great pleasure and with even a sense of relief. There was a wide-spread anticipation that some points in the management of the *Journal* would have been raised, which could hardly have given general satisfaction, and might possibly have been unpleasant in certain quarters. Immediately afterwards the greater part of the audience left the room.

Dr. Ward Cousins then moved the following alterations in By-law 35:—"1. The President of the Association to be an *ex-officio* member of the *Journal* and Finance Committee. 2. The annual retirement of four of the elected members, who shall remain ineligible for re-election for two years." The present By-law 35 runs thus:—"At the meeting of the Committee of Council held next after the annual meeting, a sub-committee of twelve members shall be elected, who, together with the President of Council and Treasurer, shall constitute the *Journal* and Finance Committee for the ensuing twelve months. Three members shall be a quorum." This motion was introduced in a very temperate speech, the author explaining that his sole object was to bring in a little "new blood" into the Committee each year. At present the members were practically self-elected, and were permanent. Seeing that this Committee works the Association, he thought that it should be representative, and under the more direct control of the body corporate.

Some very vigorous speeches were made, but from the tone of the meeting it was evident that the proposed alterations

found considerable support from those present. It was finally resolved, on the proposal of Mr. Husband, that the question be referred back for report to the *Journal* Committee, while Dr. Cousins' motion was lost. It can hardly be doubted that an advance has been made by this movement, and that the proposed alterations will ere long become law. In defending the present mode of election of this Committee, Mr. Wheelhouse—its chairman, I believe—seemed to almost be of opinion that if the present Committee were changed it would be next to impossible to find among the members any other representatives who could manage the finances of the Association equally well with themselves. This caused general cries of dissent, and so terminated the first general meeting, at about half-past eleven.

There was a meeting of the new Council early this morning. Here again the mode of electing the Committee of Council was discussed, new names being proposed in lieu of those suggested by the Committee of Council. But the concerted action of the latter, as against the individual efforts of the Council proper, carried the day. At eleven o'clock the second general meeting took place. Some formal business having been transacted, Dr. Wade (Liverpool) delivered the Address in Medicine. After the usual votes of thanks, Dr. Davidson presented a memorial inviting the Association to Liverpool next year. On the motion of Mr. Wheelhouse, seconded by Mr. Williams, this was accepted with thanks, and Dr. Waters was nominated as President-elect. Dr. John Moore then presented a memorial asking the Association to visit Belfast in 1884. As it would have been irregular to accept this invitation, the memorial will stand over till next year, when it will doubtless be accepted.

At half-past one a luncheon was given in the Shire Hall by the Worcester and Hereford Branch, nominally to 500 visitors; but a much larger number partook of a most hospitable meal. At the conclusion the bust of Sir Charles Hastings was unveiled, and presented by the President (Dr. Strange) to the city of Worcester (Colonel Stallard, Mayor). Mr. Hastings, M.P., son of Sir Charles, then gave us a brief account of the early life and career of his father; that it should be highly eulogistic none will begrudge. He spoke manfully, and with evident feeling. The address was listened to with great attention, and was cheered to the echo when concluded.

The members then hastened to the Sections—for the hour at which they were advertised to meet was long past,—anxious to hear, some one, some another, of the addresses with which the work is usually inaugurated.

In the Section of Medicine, Dr. Clifford Allbutt briefly reviewed the progress and gains of medicine during the last half-century. Diseases have been separated and described anew: physiology and pathology—one science in two aspects—have revealed to us the seat and form of injury, inflammation, abnormal growth, and decay; chemistry has armed us with improved medicines, and experiment is testing their powers and affinities. We must try, he said, however, to be practical in our results, and so to better man's estate. "We are wrung by the keen taunt of the 'practical' man, who cries out, Where is your science, where is your learning? when the sick man calls to you for help, and you stand the more impotent at his bedside the more heavily you are armed." On the work in this and the other sections I must take another opportunity of writing.

Spoons discharged per Anum.—Dr. Kohn, of New York, relates what he regards as an unique case which occurred in the person of a lady suffering from melancholia with intercurrent attacks of mania. After what seemed like attacks of localised peritonitis, which subsided, to recur again and again for more than five weeks, she discharged from the bowels a long, hard, spindle-shaped mass of faeces, through which the edges of spoons were seen protruding. When this was softened and broken up, it was found to contain three teaspoons, which bore every mark of having sojourned in the intestinal canal. They must have traversed it lying in apposition with each other, the convexities of one fitting into the concavities of the other, as those portions of them which were exposed to the action of the intestinal gases and fluids were blackened, while the parts which were protected retained the colour of Britannia metal. They measured 5¾ in. in length, the breadth of the bowl being 1¼ in. The patient stated that she swallowed the three spoons in one day.—*New York Med. Record*, July 22.

FROM ABROAD.

Prizes and Prize-Questions at the Academy of Medicine.

The Académie de Médecine has just held its annual meeting for the distribution of prizes, postponed more than six months after the proper period, in consequence of the delay of the various committees in sending in their reports. Referring to the *Bulletin* of the Academy for the address delivered by Dr. Bergeron, in which he expressed at some length the motives which have guided the awards, we confine ourselves to the simple enumeration of the latter:—1. The Portal Prize ("The Condition of the Uterus and its Appendages in Puerperal Fever") is awarded to M. Mayor, *Chef* of the Histological Laboratory of the Amphitheatre of the Paris Hospitals. 2. The Bernard de Civrieux Prize ("Epileptiform Accidents in Hysteria") to Dr. Ballet, a practitioner of Paris. 3. The Capuron Prize ("The Indications and Contra-indications of the Employment of Mineral Waters, Sea-Bathing, and Hydrotherapy during Pregnancy") is awarded to Dr. Belugon, a physician at a sea-bathing place; and two "mentions honorables" are given to Dr. Caulet, an inspector of mineral waters, and Dr. Queirel, Surgeon to the Marseilles Maternité. 4. The Barbier Prize, for works which make the nearest approach to the discovery of a Cure for at present Incurable Disease, was given to Dr. Tonssaint, Professor of Physiology at the Veterinary School at Toulouse, for his researches on Charbon, Chicken-Cholera, and Acute Experimental Septicæmia. 5. The Desportes Prize, for the best work on Practical Medical Therapeutics, was not awarded; but "recompenses" were given to Dr. Emile Vidal for his work on the "Treatment of Prolapsus of the Rectum by the Hypodermic Injection of Ergot," and to Dr. Campardon for a memoir on two Indigenous Plants. 6. The Buignet annual Prize, for the author of the best manuscript or printed work on the Applications of Physics or Chemistry to the Medical Sciences, was adjudged to Dr. Badal, of Bordeaux, for his "Leçons d'Ophthalmologie." 7. The Amussat Prize, for the author of the work or research which, based both on anatomy and experiment, has done most to realise or prepare the way for important progress in surgical therapeutics, was divided between Dr. Lucas-Championnière for his work on Trephining the Cranium, and Dr. H. Toussaint for his memoir on the Arteria Dorsalis Pedis and its Aneurisms. 8. The Lefèvre Prize, for the best essay on Melancholia, was divided between Dr. Liénard, of Sedan, and Dr. Duponchel, Médecin Aide-Major. 9. The Sexennial Argenteuil Prize, to be given to the author of the greatest improvements in the Treatment of Stricture of the Urethra or other Affections of the Urinary Passages during the six years 1870-81, has been divided between Dr. Bigelow, of Boston, and Dr. Anger. To the former 6000 fr. have been decreed for his new mode of lithotrity, and 4000 fr to Dr. Anger for his improvements in the operation for hypospadias. 10. The Alfaro Prize, for the reward of the best essay on the Moral Treatment of the Insane in Lunatic Asylums, and the Objections to Rigorous Isolation in Melancholia, was adjudged to Dr. Lagardelle. Several of the prizes offered by the Academy were not adjudged, the essays sent in for them not being considered to be of sufficient merit. Heaps of medals in gold, silver, or bronze were bestowed on the "Médecins des Epidemies," the "Médecins-Inspecteurs des Eaux Minérales," and the "Médecins et Sages-femmes Vaccinateurs."

The following are the prize-questions proposed for 1883:—1. The Academy Prize of 1000 fr., "To Determine the Clinical Value of Antiseptic Procedures in Surgical Practice." 2. The Portal Prize of 1000 fr., "Is Tubercle of a Parasitic Nature?" 3. The Bernard de Civrieux Prize of 2000 fr., "Hysterical Paralyses and Contractions." 4. The Capuron Prize of 2000 fr., "The Influence of Sea-Bathing on the Scrofula of Children." 5. The Barbier Prize of 2000 fr., to be awarded to whoever nearest attains to the Cure of Diseases hitherto reputed as Incurable—viz., hydrophobia, cancer, epilepsy, typhus, scrofula, and cholera. 6. The Godard Prize of 2000 fr will be given for the best work on External Pathology. 7. The Desportes Prize of 1500 fr., to be given to the author of the best work on Practical Medical Therapeutics. 8. The Buignet Prize of 1500 fr.,

to be awarded to the author of the best work, whether manuscript or printed, on the Applications of Physics or Chemistry to the Medical Sciences (the works of foreigners and translators cannot compete for this prize). 9. The Daudet Prize of 1500 fr., "Lymphadenoma." 10. A prize of 2000 fr. on the Hygiene of Infancy—"Exhibit by precise observations the part which the First Dentition may play in Infantile Pathology." 11. The Vernois Prize of 800 fr. will be annually decreed for the best work on Hygiene. 12. The Amussat Prize of 2000 fr., to be awarded to the author of the best work or researches, founded both on anatomy and experiment, which shall realise or prepare the way for important progress in Surgical Theurapeutics. 13. The Stanski biennial Prize of 1000 fr., to be awarded to whoever best demonstrates "The Existence or Non-existence of Miasmatic Contagion by Infection or Contagion at a Distance." 14. The Huguier Prize of 3000 fr., to be given to the author of the best work, whether manuscript or printed in France, on the "Diseases of Women and their Surgical Treatment." 15. The Saint-Lager prize, a sum of 1500 fr., to be given to compensate the experimenter who has been able to induce a Tumour of the Thyroid Gland by the administration to animals of substances extracted from the waters or soils of countries in which Endemic Goitre prevails. 16. The Saint-Paul Prize of 25,000 fr. will be conferred upon the person, without distinction of country or profession, who first discovers a Remedy which the Academy acknowledges is efficacious and sovereign in Diphtheria. Awaiting the discovery of such remedy, the interest of the sum awarded will be expended every second year in "encouragements" for those whose researches on diphtheria appear to be meritorious.

REVIEWS.

The Transactions of the Edinburgh Obstetrical Society. Vol. VI., Session 1880-81. Edinburgh: Oliver and Boyd. 1881. Pp. 231.

THE Obstetrical Society of Edinburgh inaugurates with the volume before us the publication of an annual record of its work. This therefore is somewhat less in bulk than its predecessors; but is not inferior in quality. We may call especial attention to the quarterly reports of the Edinburgh Maternity and Simpson Memorial Hospital, by Drs. Halliday Croom, A. R. Simpson, and Angus Macdonald, and to a paper by the first named of these gentlemen, on "The Systematic Use of Antiseptics in Midwifery Practice," as being of especial interest to those concerned in the management of lying-in hospitals. Dr. David Berry Hart contributes two short though valuable papers, which will be novel to those who do not happen to be acquainted with his previous writings on allied subjects. Dr. William Turner describes and comments upon "A Case of Delivery by the Breech through a Greatly Narrowed Flat Rachitic Pelvis." His paper is an example of the kind of careful, accurate work by which midwifery, it is to be hoped, may one day approach the level of an exact science. Dr. More attacks a commonly received belief in a paper on "The Use of the Catheter before Forceps-Delivery." He holds that, as a rule, it is not at all necessary to pass a catheter before applying the forceps; but that there are exceptional cases (which he specifies) in which that step is required. Dr. More gives good reason for his departure from the orthodox doctrine. Those who are more especially interested in new therapeutic devices will find something to their taste in papers by Dr. Milne Murray, "On a Form of Post-partum Incontinence of Urine, and its Treatment by Faradism," and by Dr. Milne Chapman, "On a Method of Treatment of Certain Kinds of Incontinence of Urine." Dr. Murray cured his patient by faradism, putting one pole of the battery in the bladder, and the other over the sacrum. The current was applied in this way daily for two months and a half, the application being at first for ten minutes only, but afterwards gradually increased till the sitting extended to half an hour. Dr. Murray's explanation is, that the incontinence resulted from a weakened sphincter, which was restored by the electricity to its normal tone. Dr. Chapman, in the case he records, regarded the incontinence as due to contraction of the bladder, the result of cystitis, and treated it by gradual forcible dilatation of the bladder, a warm 2 per cent. solution of carbolic acid being forced in until the bladder was filled to distension. The treatment produced a good deal of pain, but it was followed by increase in the capacity of the bladder, and relief to symptoms. A paper on "Chronic Inversion of the Uterus," by Dr. Angus Macdonald, will well repay study.

There is one point to which we would ask the attention of the editors, and that is, the number of, as they seem to us, valueless reports of exhibited specimens which we find. What is the use of permanently recording that Mr. X. showed a fœtus upon which he had performed craniotomy? It may be interesting to Mr. X. to exhibit the proof of his powers, and to his friends to look at it, but unless there is some peculiarity, and the specimen is described fully enough to make that point apparent, there is no object served by recording the fact of its exhibition. There are many specimens mentioned in this volume which present, so far as the account here given goes, no point of interest whatever.

On the Treatment of Cancer. By JOHN CLAY, Professor of Midwifery in Queen's College, and Obstetric Surgeon to the Queen's Hospital, Birmingham, etc. London: J. and A. Churchill. 1882.

THIS pamphlet can only be noticed with regret. It consists of the republication of certain remarkable statements which appeared in the *Lancet* of 1880 and 1881. To these is now added an introduction of twelve octavo pages, in which the author harps upon the old string whereby he has endeavoured to drown the objections of those who have patiently and trustworthily tried his remedy, and found it to fail utterly in their hands—viz., the impurity of much of the turpentine which is sold as Chian, the impossibility of verifying the genuineness of the drug supplied to one's patients, and the absolute necessity of getting the pure article.

We cannot disguise our astonishment that a surgeon of an accredited position should think it worth while to republish papers containing such bold assertions, based on such loose and insufficient data. He surely cannot expect that his assertions will receive any logical support from the bare statement of the experiences of others when adduced in such a form as the following—"Two cases of cancer of the liver have been reported to me by two surgeons as cured by the same drug, the life of each patient being previously despaired of."

It is an insult to the intelligence and common sense of his readers to offer them such an argument in support of the utility of a remedy which, so far as we have been able to ascertain, has failed egregiously in the practice of all—except Mr. Clay himself—who have had an extended field for testing it, and that in spite of their having taken great care to secure the genuine drug. The pamphlet before us will have two results: it will prove a good advertisement for the firm of Birmingham chemists so strongly recommended in the preface; and it will much grieve those members of the medical profession who had previously looked upon Mr. Clay as a *confrère* of sound opinions.

ARTIFICIAL LEMONADE.—Loaf sugar two pounds, tartaric acid half an ounce, essence of lemon thirty drops, essence of almonds twenty drops. Dissolve the acid in two pints of hot water, add the sugar, and lastly the essences, stir well, cover with a cloth, and leave till cold. Two tablespoonfuls of this in a tumbler of water make an excellent drink, more refreshing than ordinary lemonade, while costing considerably less. The addition of a little bicarbonate of potash to each tumblerful will give a wholesome effervescing drink.—*Louisville Med. News*, from *Scientific American*.

A BUG ADHERING TO THE MEMBRANA TYMPANI.—Dr. Noquet relates the case of a workman who, sleeping in a bed infested with bugs, was awoke in the night by pain at the bottom of the auditory canal, accompanied by noises like those made by a large fly, and a kind of scratching or rubbing sensation. When the ear was examined a black body was observed to be adherent to the membrana, which, on being removed by a curette, was still alive. The canal was wide and quite dry, conditions which favoured the entrance of the bug, which also was small in size. Similar cases have been recorded by Urbantschitche and Henocque. —*Gaz. Hebdomadaire*, August 4.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the July sittings of the examiners:—

George Ernest Claxton, India; Samuel James Camac, Dervock; Thomas Ross, Sutherlandshire; William Vaughan Roberts, Festiniog; Charles Spurgeon Davies, Canada; Richard Nason Gaggin, co. Cork; Arthur Robert Steel, Aldershot; Ewen Whitwell, jun., London; Lambert Houghton, New York; Eliot William Welchman, Lichfield; William Allen Fisher, co. Cork; George James Waters Garnham, Derbyshire; George Henry Taylor, Houghton-le-Spring; John Foggin, Newcastle-on-Tyne; Douglas Dixon Dryden, Plymouth; John Davies, Birkenhead; Herbert Tofft-Phillips Sinclair, India; William Henry Harris, Stony Stratford; James David Black, Cockburnspath; Daniel Joseph Patrick M'Nabb, Greenock; William Owen Magoris, West Hartlepool; Henry Crombleholme, Bradley, Preston; Frederick William Gibbon, Durham County; James Hogg, Lanarkshire; James Curtin Sheehan, co. Cork; James Orr, co. Antrim; John William Ridley, Wallsend-on-Tyne; Benjamin David Craigie Bell, Shetland; John Williams-Jones, Carnarvonshire; Edward Campbell Hearne, co. Mayo; George Parry, Carnarvon; Edward Muscroft Taylor, Scarborough; Joseph Amy, Jersey; Walter Wignall, Skipton; Herbert Harcourt Kent, Brighton.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin., during July and August:—

Cornelius Buckley, co. Cork; William James Browne, co. Derry; John Charles King, Roundstone, Galway; James William Delaney, Madras; Edward Ellis, Yorkshire; James Henry Rolgers, India; Thomas Ernest Gee, East Bridgeford, Notts; Edwin Simpson, Perthshire; Adolphe William Ollmann, Magdeira; Gerald Barry Wilson, Cork; John Saunders Graham, co. Antrim; James Warburton, Prince Edward Island, Canada; Robert Buck Carruthers, Wigton, Cumberland; John McBride, Toronto; Andrew Thomas Todd, co. Antrim; James Addington Caldwell, Winslow, Bucks; John Jackson Berry, Pendlebury, Manchester; Frederick William Blackwell, Birmingham; John Thomas Finlay, co. Fermanagh; Harry Scott, Manchester; Francis McDonald Swallow, Isle of Man; Robert Main, Newcastle-on-Tyne; George Sinclair, Orkney; James Patrick Andrew Wilson, Edinburgh; Henry Thomas Legerton, South Shields; Louis Joseph Petricher, Mauritius; Francis Joseph Salter, Leeds; Eustace Julian D'Gruyther, India; John Emanuel Panisty, India; Joseph Graham, co. Tyrone; William James Hadden, India; David McMahon Browne, Dublin; Arthur Charles Kemble, West Hanningfield, Essex; John Anderson, Rosewell; Joseph Holmes, Hunsted, Leeds; Robert Richard Wallace, Glasgow; George Neale, Leicester; John Henry Ebell, Ceylon; Edward George Horder, Middlesex; Wynton Dickson, Dewsbury; William Flood, Cavan; Patrick O'Donnell Moloney, Rathmore; Mark Anthony Robinson, Kent; George Frederick Chadwick, Dewsbury; Alexander McRae Bremner, Ross-shire; William Stephen Nockolds, Wrexham; James Watson, Belfast; George Henry Taylor, Houghton-le-Spring; Thomas Patterson Devlin, Belfast; John Mortlock Phillips, Hampshire; Stephen Frederick Rowan, St. John, New Brunswick; Cassius Wilkinson Belton, London, Ontario; James Menzies, Aberieldy.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examination during the July sittings of the examiners:—

William Guy, Kent; Percy Meredith Earle, Brentwood; Robert Francis Martin Quin, Belfast.

The following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

David Donald, Glasgow; Frederick Albert Heslop, Manchester; David Hugo Daniell, Monmouthshire; Edward Cooper Fenoulhet, Dorsetshire; John George Duncan, Waterford; Frederic George Haworth, Lancashire; Elmes Steele, Monmouthshire; John Carruthers, Kilwinning.

The following gentlemen passed their First Professional Examination for the Licence in Dental Surgery of the College:—

Francis Bromley, Hampstead; William J. Mason, Chard, Somerset; Frank H. Briggs, Leeds.

The following gentlemen passed their Final Examination, and were admitted L.D.S.:—

David Monroe, Edinburgh; George John Lucas, Blackheath.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on July 24 and following days, the undernamed gentlemen, having passed their final examinations for the Letters Testimonial, and having made the declaration and signed the roll, were admitted Licentiates, viz.:—

James Tandy Bolger, Robert Henry Coall, Austin Nathaniel Cooper, Percy Herbert Delamere, Bernard Joseph Dillon, Myer Akiba Dutch, John Peter Garland, Arthur Joseph Greene, Alfred Adolphus Hayes, John Colclough Hoey, Timothy Howard, James Lane, Joseph Lalor, John Michael M'Donagh, William M'Gee, James M'Guire, Frederick Joseph M'Naught, Edward Duddy Mullan, Percy Newell, Michael Joseph Nolan, Thomas O'Connell, William Edmond O'Connor, Rowland Pollock, John Turner Power, Francis Christian Roe, Robert Corles Sanders, Michael Patrick Sweeney, William Christopher Thompson, John Joseph Todd, and Edward Wynne.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on August 3:

Blagg, Arthur Frederick, Crowndale-road, Oakley-square.
Brown, James William Henry, Kirksdale-road, Leeds.
Davis, James Warren, Tu Warren, Milford Haven.
Dean, Francis, 2, Overstone-road, W.
Herron, James, Kingsland, N.
Hubbard, Arthur John, Ladbroke-terrace, Notting Hill.
Lister, Joseph Herbert, Huntley-street, Bedford-square.
Williams, Robert, Amlwch, Anglesey.

The following gentleman also on the same day passed his Primary Professional Examination:—

Guilding, Lansdown M., Middlesex Hospital.

APPOINTMENTS.

SPENCE, WILLIAM JAMES, L.R.C.P., L.R.C.S.—House-Physician to the Bradford Infirmary, *vice* Mr. Foster, resigned.

BIRTHS.

ATKINSON.—On August 8, at Whitefriars, Settle, the wife of Francis E. Atkinson, L.R.C.P., Medical Officer of Health, Craven Combined District, of a son.

CRAWFORD.—On July 30, at 5, St. John's-park, Blackheath, the wife of Dr. Crawford, Director-General A.M.D., of a son.

CROUCH.—On August 1, at Fareham, Hants, the wife of Edward T. Crouch, M.R.C.S., prematurely, of a son.

HALL-MORE.—On August 3, at Beachlands, Walmer, the wife of Robert Hall-More, M.D., Staff-Surgeon Royal Navy, H.M.S. *Swiftsure*, of a son.

LEITCH.—On August 6, at 7, Park-terrace, Silloth, the wife of John Leitch, M.B., C.M., of a son.

LITTLE.—On June 14, at Shanghai, the wife of L. S. Little, B.A., M.D., F.R.C.S., of a son.

MCCLURE.—On August 7, at Verandah House, Worle, Somersetshire, the wife of Thomas McClure, M.D., F.R.C.S., of a son.

MARSHALL.—On July 30, at Nottingham, the wife of Lewis Walter Marshall, M.D., of a daughter.

PURVES.—On August 2, at 20, Stratford-place, Oxford-street, W., the wife of W. Laidlaw Purves, M.D., of a daughter.

VIVIAN.—On July 25, at Chase Side, Southgate, N., the wife of R. T. Vivian, M.R.C.S., of a son.

WALL.—On August 7, at 78, Bishop's-road, Bayswater, W., the wife of Reginald Bligh Wall, M.R.C.S., of a daughter.

MARRIAGES.

BAÜMLER—REIMER.—On August 3, at Berlin, Christian G. H. Baümler, M.D., F.R.C.P., Professor of Clinical Medicine in the University of Freiburg, in Berlin, to Maria Victoria, daughter of Dietrich Reimer, Esq., bookseller and publisher, of 2, Hafenplatz, Berlin.

BIRT—DICKIE.—On August 2, at Stratford-on-Avon, Stephen Birt, L.D.S., son of Thomas Birt, M.D., of Leamington, to Margaret, daughter of the late John Tod Dickie, Esq., of Stratford-on-Avon.

BREWER—RIDER.—On August 2, at Finchley New-road, J. Henry, son of Alexander Brewer, M.R.C.S., late of Ebbw Vale, Monmouthshire, to Emily Meadows, daughter of William Rider, Esq., of Kenwyn, Fitzjohn's-avenue, Hampstead, N.W.

CORTIS—BRUCE.—On August 3, at Kennington, Herbert Liddell Cortis, M.R.C.S., son of Dr. Cortis, of Kennington-park-road, to Mary, daughter of James Bruce, Esq., of Stockwell-road, late of Cape Town.

GRANSHAW—HARDS.—On August 3, at Dartford, Frederic, son of J. H. Gramshaw, M.D., of Gravesend, to Rose, daughter of R. R. Hards, Esq., of Dartford.

NOBLE—THOMPSON.—On August 2, at Newcastle-upon-Tyne, James Black Noble, M.R.C.S., etc., of Trinity-square, S.E., to Jennie, daughter of the late Joseph Thompson, Esq., of Walker, Northumberland.

DEATHS.

ADAMS, ANDREW LEITH, LL.D., F.R.S., D.Sc., Professor of Natural History, Queen's College, Cork, and Hon. Deputy Surgeon-General A.M.D., at Queenstown, on July 29.

BOURNE, WILLIAM, M.D., at Howard-street, North Shields, on July 16 aged 60.

CHADWICK, ADA MARY, wife of George T. Chadwick, L.R.C.P., at Darling, Cape of Good Hope, on June 28.

LUBBOCK, LORA, wife of Montague Lubbock, M.D., of 19, Grosvenor-street, W., at St. Leonards-on-Sea, on August 1, aged 35.

MACSWINNEY, MAUD CERRIE, daughter of G. H. MacSwinney, M.D., at Westall House, Brook Green, W., on August 7, aged 5.

MILLER, JAMES, M.D., of Aberdeen House, Great Percy-street, W.C., on August 7.

POULTON, CHARLES WALTER, M.D., Surgeon-General, at 52, Elgin-crescent, Notting Hill, on July 31, aged 59.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. (*For particulars see Advertisement.*)

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary £100 per annum, with board and lodging. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Secretary on or before September 9. The election will take place on September 21.

EARLSWOOD ASYLUM FOR IDIOTS, REDHILL, SURREY.—Medical Superintendent. (*For particulars see Advertisement.*)

LANCASTER INFIRMARY AND DISPENSARY.—House-Surgeon. (*For particulars see Advertisement.*)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Assistant Dental Surgeon. Candidates must be Licentiates of Dental Surgery. Applications to be sent in on or before August 22.

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Salary £50 per annum. Hours of attendance from nine to two. Candidates must be Licentiates of Dental Surgery. Applications to be sent in on or before August 22.

NORTHAMPTON GENERAL INFIRMARY.—Physician. (*For particulars see Advertisement.*)

SALISBURY INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing. Candidates must either be Fellows or Members of one of the Colleges of Surgeons of Great Britain or Ireland, and be qualified to practise medicine by some recognised body in the United Kingdom of Great Britain or Ireland, and they must be unmarried. Applications, with testimonials and certificates of qualification, to be sent to the Secretary on or before August 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

East Retford Union.—Mr. R. H. Dawson has resigned the Durham District: area 7001; population 1339; salary £15 per annum.

Freebridge Lynn Union.—The Western District is vacant by the death of Mr. Edwin Woodward: area 14,933; population 2734; salary £55 per annum.

Guiltcross Union.—The Offices of Medical Officer for the Second District and the Workhouse are vacant by the death of Mr. Thomas John Sayer: area 13,498; population 3572; salary £60 per annum. Salary for Workhouse £25 per annum.

Ormskirk Union.—Mr. G. S. Kenyon has resigned the Fourth District: area 11,555; population 3949; salary £30 per annum.

Wigton Union.—Dr. H. Mitchell has resigned the Ireby District: area 19,840; population 2060; salary £11 per annum.

APPOINTMENTS.

Barton-on-Irwell.—Edwin Hodgson Roe, M.R.C.S. and L.S.A. Lond., to the Cadishead District.

Basingstoke.—Charles Frere Webb, L.R.C.P., M.R.C.S., as Analyst for the Borough. Remuneration £2 2s. per case.

Cirencester Union.—William Raymond Cossham, M.D. and M.C. Aber., M.R.C.S. Lond., to the Centre District. Charles William Wilson, M.B. and M.R.C.S. Eng., to the South District and the Workhouse.

Droxford Union.—Morley Eddison Clough, L.R.C.P. Edin. and M.R.C.S. Eng., to the Hambledon District.

Hoxne Union.—Croft George Symons, M.R.C.S. Eng. and L.S.A. Lond., to the Bedfield District.

Kettering Union.—Harold Adcock, M.R.C.S. Eng. and L.S.A., to the Corby District.

Malton Union.—Adam Corbett Lyon, M.B. and M.C. Aber., to the Rillington District.

Market Bosworth Union.—Robert Charles Garde Durdin, L.R.C.S. and L.K.& Q.C.P. Ire., and L.M., to the Desford District.

Wolverhampton Union.—Edward Corrighan Watts, M.R.C.S. Eng., L.R.C.P. Edin., and L.M., to the Workhouse.

APPOINTMENTS FOR THE WEEK.

August 12. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

14. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

16. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

18. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 5, 1882.

BIRTHS.

Births of Boys, 1329; Girls, 1217; Total, 2546.
Corrected weekly average in the 10 years 1872-81, 2538·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	687	683	1370
Weekly average of the ten years 1872-81, corrected to increased population ...	892·6	830·6	1723·2
Deaths of people aged 80 and upwards ...	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	4	9	1	11	...	2	...	19
North ...	905947	1	8	5	3	14	1	2	...	24
Central ...	282238	...	4	1	3	3	...	2	...	14
East	692738	...	9	16	2	7	...	1	...	25
South... ...	1265927	...	8	7	6	22	...	5	...	36
Total	3816483	1	33	38	15	57	1	13	...	118

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	30·008 in.
Mean temperature ...	62·5°
Highest point of thermometer ...	80·0°
Lowest point of thermometer ...	49·8°
Mean dew-point temperature ...	54·3°
General direction of wind ...	N.N.W. & W.S.W.
Whole amount of rain in the week ...	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Aug. 5, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Aug. 5.	Deaths Registered during the week ending Aug. 5.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2546	1370	18·4	80·0	49·8	62·5	16·95	0·05	0·13
Brighton	109595	52	29	13·8	75·0	50·3	61·1	16·17	0·03	0·08
Portsmouth ...	129916	77	48	19·3	...	...	...	...	...	...
Norwich	88821	48	30	17·6	...	...	...	...	...	...
Plymouth	74449	45	25	17·5	78·1	51·0	61·2	16·22	0·00	0·00
Bristol	210134	133	60	14·9	68·8	45·2	58·1	14·50	0·01	0·03
Wolverhampton .	76756	51	27	18·4	70·8	45·8	57·5	14·17	0·02	0·05
Birmingham ...	408532	276	143	18·3	...	...	...	...	...	...
Leicester	126275	96	65	26·9	...	...	...	...	...	...
Nottingham ...	193573	178	88	23·7	75·7	44·2	59·5	15·28	0·03	0·08
Derby	83587	56	17	10·6	...	...	...	...	...	...
Birkenhead ...	86582	61	35	21·1	...	...	...	...	...	...
Liverpool	560377	393	270	25·1	66·6	53·8	57·4	14·11	0·40	1·02
Bolton	106767	62	37	18·1	64·5	45·8	53·0	11·67	1·30	3·30
Manchester ...	340211	283	201	30·8	...	...	...	...	...	...
Salford	184004	123	67	19·0	...	...	...	...	...	...
Oldham	115572	77	41	18·5	...	...	...	...	...	...
Blackburn	106460	82	49	24·0	...	...	...	...	...	...
Preston	97656	48	45	24·0	...	...	...	...	...	...
Huddersfield ...	83418	68	40	25·0	...	...	...	...	...	...
Halifax	74713	44	19	13·3	...	...	...	...	...	...
Bradford	206158	130	74	19·3	72·0	48·8	58·5	14·72	0·02	0·05
Leeds	315998	212	138	22·8	73·0	51·0	59·8	15·45	0·05	0·13
Sheffield	290516	242	126	22·6	69·0	48·0	58·3	14·61	0·12	0·30
Hull	158814	100	73	24·0	71·0	46·0	57·6	14·23	0·10	0·25
Sunderland ...	119065	85	57	25·0	76·0	47·0	60·6	15·90	0·47	1·19
Newcastle	147626	105	68	24·0	...	...	...	...	...	...
Cardiff	86724	76	25	15·0	...	...	...	...	...	...
For 28 towns ...	8469571	5749	3267	20·1	80·0	44·2	58·9	14·94	0·20	0·51
Edinburgh	232440	134	83	18·6	67·6	46·2	57·2	14·00	0·22	0·56
Glasgow	514048	351	239	24·3	...	...	...	...	...	...
Dublin	348293	199	153	22·9	71·2	44·9	59·1	15·06	0·05	0·13

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·01 in. The highest reading was 30·13 in. on Monday morning, and the lowest 29·85 in. on Wednesday afternoon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. C. M. Ellis, Elkton, U.S.A.—Letter and remittance received.

Marcus.—No; butterine—a substitute for butter—was introduced into this country from New York.

J. Crosby E.—In the Chelsea Hospital for Women, the small payments of the patients, unprovided with a subscriber's free letter, during the last eleven years, have amounted to £3400. A Convalescent Home and Samaritan Fund has been started, to enable patients to secure necessary change of air at some seaside place.

Frozen Food.—A contemporary, writing on this subject, says it is not generally known that some millions of the human race subsist for one-third of the year on frozen food, not only meat and fish, but also butter, game, milk, etc. We do not refer to the Esquimaux or Samoyedes, but to people living in the utmost affluence, who are compelled to resort to this kind of diet as often as winter comes round. That it is not unwholesome appears from the fact that (excepting in St. Petersburg) the death-rate is no higher in the towns inhabited by people using this food than in the average of towns in France; and that the meat loses none of its flavour after months of freezing is admitted by all travellers. It will not be over the mark to say that twelve millions of people in the Northern Hemisphere consume one million tons of frozen food during the winter months. This does not include the frozen meat consumed in England.

Lusion Diet-Drink.—Sarsaparilla 20, red sandalwood 90, white sandalwood 90, rosewood 30, guaiacum 30, sassafras 30, mezereon root bark 15, black sulphuret of antimony 60, boiling water 3600 parts; infuse for a night, boil down to one-half, and towards the end of the operation add liquorice 15 parts.

Pollution of the Tweed.—Professor Crum-Brown, reporting on the pollution of the Tweed and Gala by effluent water from the manufactories on the banks of these rivers, states, after a careful inquiry, and a lengthened series of chemical experiments, that in eighteen mills soapy liquids are produced, containing more or less noxious ingredients, which are discharged into the rivers; that the present machinery erected by the mill-owners for the prevention of pollution is inadequate for the purpose; that the present discharges from the mills, even after undergoing a process of purification, are unfit to be run into the rivers; and recommends the erection of a large joint purification work for all mills.

A Cockney.—An urban authority may license the proprietors of pleasure-boats and vessels, and the boatmen or other persons in charge; and may make by-laws for regulating them, and the qualification of such boatmen or other persons in charge.

Prize Essay.—The Belgian Academy offer a prize of 3000 fr. for the best essay on the destruction of fishes by the pollution of rivers. Intending competitors will be allowed till October 1, 1884, to send in their papers. Among the topics suggested for treatment are the investigation and indication of practical means for purifying the waters issuing from particular industrial works, so as to render them compatible with the life of fishes, without injuring the particular industry.

The Common Mushroom.—Professor Poofick, of Breslau, has been making experiments on the common mushroom, and tells us in detail, and with the authority of science, what was somewhat vaguely known before, viz., that all common mushrooms are poisonous, but cooking deprives them in a greater or lesser degree of their poisonous qualities. The repeated washing with cold water, which they usually undergo to clean them, takes away a portion of the poison, and boiling does the rest, but the water in which they have been boiled is highly poisonous, and should always be carefully got rid of. Dried mushrooms are still dangerous for from twelve to twenty days; they require to be dried for at least a whole month, and are only really safe after four months' drying.

The Detection of Poisonous Sewer-Gases.—The examination of houses for structural defects, imperfect piping, etc., which allow poisonous sewer-gases to find their way into the interior, and the difficulty of discovering these defects, has led to the invention, by Mr. Macleod, the sanitary officer, Glasgow, of a test, which, though simple and easily applied, is found to be thoroughly trustworthy. The smoke of ignited cotton-waste is blown by a machine into the whole drainage system of a building, and by issuing from the mischievous holes and crannies "discloses the position of a leakage with perfect accuracy." When no smoke appears it may be concluded with perfect confidence that the pipage connected with the sewer is sound and safe. This detect-detective is an improvement on the ether-vapour system which has been proposed for the same purpose.

The Remedy worse than the Disease.—A coroner's jury at Blackburn recently suggested that the ordinary speed of trains should be much reduced when entering the railway-station there—a suggestion which has been acted upon. The change has, however, led to a great increase of the practice of passengers leaving trains whilst in motion, and a traveller was a few days since fined 5s. by the borough magistrate for thus offending.

Putrid Meat: Holborn District.—The Sanitary Inspector for this district reports to the Holborn Board of Works that a large quantity of Australian meat had been consigned to that district, and that he had seized 8384lbs. of beef all in a putrid state.

Juvenile Smoking.—The Committee of the Sunday-School Union offer two prizes—one of £10 and a second of £5—for the two best papers which shall set forth to the young the evil effects, disadvantages, etc., of smoking. It is sought that the papers should be written in such a manner as by their style, method, argument, and delaction will commend them to boys and elder lads. The conditions are—1. Papers must not contain more than 5000 words. 2. They must bear a motto on the top of the first page, which motto must also accompany the name and address of the writer in a separate envelope. 3. They must be sent to the Editor of the *Sunday-School Chronicle*, 56, Old Bailey, not later than September 3.

Vaccination in Switzerland.—The Swiss Contagious Diseases Law, which was a few days since submitted to the popular vote, has been rejected by an overwhelming majority. The measure proposed to make vaccination compulsory. Vaccination is already compulsory in many of the Cantons by local enactment.

Triennial Election of Poor-law Guardians.—The Local Government Board seems disposed to approve of a triennial instead of the annual election of guardians, as hitherto. A poll is to be taken, with the sanction of the Central Authority, of the owners of property and ratepayers on this question in the Prestwich Union during the present month, and also for the Salford Union. The result of the voting on this question of the forty-one townships of the Macclesfield Union is that of the 9031 votes recorded out of 14,247, 6477 were in favour of the three-years system, and 2554 against. Twenty-seven townships or united townships were in favour of the change, and four against.

A Northern Sanitary Association.—Under the presidency of Dr. Cameron, a meeting has been held at Liverpool, to establish an organisation, to be called the "Northern Sanitary Association." The object is to provide the best practical advice on sanitary matters at a moderate cost, and to advance sanitary knowledge. A resolution was adopted in favour of such an association, which was influentially supported, the Earl of Derby being the President.

Philanthropy.—Baroness Burdett-Coutts has arranged for the despatch of a small staff of nurses to Egypt, with all nursing appliances, the moment their services are needed, and to the spot where they may be most required.

Efficacy of Vaccination.—The outbreak of small-pox which occurred at Exeter some time since has, it is announced, been entirely suppressed. Each case was immediately taken to the sanatorium. All have recovered. The medical officers describe as remarkable the mild type of the disease which attacked those who had been revaccinated.

Whitelead Works.—Upon the precautions which can be enforced under the Factory Act, and as to the need of further powers for the protection of persons employed in whitelead works, the report by Mr. Redgrove, Chief Inspector of Factories, has been published as a Parliamentary paper. After referring to previous legislation on the subject of the prohibition of the employment of children and young persons in the occupations of silvering mirrors, the manufacture of whitelead, and other injurious processes, Mr. Redgrove describes in detail the processes carried on in whitelead works. From this it appears that the injuries to health arise from the external contact of the whitelead with the skin, and he is of opinion that much may be done to lessen the dangers of the manufacture of the pigment, in the shape of frequent ablutions, the wearing of special clothes, caps, boots, respirators, and the supply of acid drinks. These precautions should be insisted upon in the most stringent manner by all the manufacturers of whitelead, and their infringement punished with dismissal.

COMMUNICATIONS have been received from—

The Editor of the "British Medical Journal," London; The Secretary of the Medical Faculty of the University of Aberdeen; The Registrar of the Royal College of Surgeons in Ireland; Dr. G. E. Shuttleworth, Lancaster; Mr. J. D. Sainter, Buxton; Dr. Leonard W. Sedgwick, London; The Registrar of the Apothecaries' Hall, London; The Secretary of the Local Government Board, London; Mr. J. Chatto, London; Dr. J. W. Moore, Dublin; The Registrar-General for Scotland; The Secretary of the Sanitary Institute of Great Britain, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Students' Journal and Hospital Gazette—Centralblatt für Gynakologie—Le Concours Médical—Gazzetta degli Ospitali—National Board of Health Bulletin, Washington—Centralblatt für die Medicinischen Wissenschaften—Zeitschrift für Diagnostik und Therapie—Vaccination Inquirer—Practitioner—Alienist and Neurologist—Lincolnshire Chronicle, August 4—American Journal of the Medical Sciences—L'Impartialité Médicale—Revista de Medicina—Western Medical Reporter—London Association for Protection of Trade—La Spédalskhed—The Analyst—Dublin Journal of Medical Science—Nordiskt Medicinekt Arkiv—Ciencias Medicas.

FIFTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,

HELD IN WORCESTER, AUGUST 8, 9, 10, AND 11, 1882.

ADDRESS IN SURGERY.

By WILLIAM STOKES, F.R.C.S.I.,
Professor of Surgery Royal College of Surgeons; President of the Pathological Society of Ireland.

MY first duty and real pleasure is to offer an expression of gratitude for the honour—the great honour—that has been conferred on me and on Irish surgery in being asked by your Council to address you on an occasion so memorable as the present. Were I called on to address an audience previously unknown to me, though not insensible of its sympathy, my diffidence would be great. How much greater must it be when I know I am speaking to so many fellow-labourers whose work, life-object, and ambition are the same as mine, and many of whom have acquired and deserved far-reaching fame. However, if my diffidence is great, so is also the pleasure, as the honour of being invited to address you comes from the noblest brotherhood in a profession that has yet existed; for such—now celebrating its jubilee—is this Association, the interests and prosperity of which we all have so much at heart.

It must be a source of genuine satisfaction to those who for many years past have taken an active interest in the work of the Association to observe how, first taking root here in the heart of England, its branches now extend not only over the three divisions of the kingdom, but also stretch out widely and luxuriantly to our great colonies, east and far west—wherever, in truth, the flag of England is looked upon with affection and pride. Well has our great brotherhood fulfilled the expectations of its distinguished founder, Sir Charles Hastings; for as it had its birth in the "faithful city," so it has proved faithful in many good and noble ways—faithful in removing professional jealousies, and softening asperities—faithful in protecting with its broad and strong shield those among us who may have been cruelly and unjustly attacked—faithful in its efforts to raise the social status of our profession—faithful in its attempts to extricate public opinion from the quagmires of sentimentalism and folly—faithful in aiding and encouraging the scientific vanguard of our profession.

But, great as the results have been of these efforts of the Association, much yet remains to be achieved. I should like to see loyal and hearty co-operation with the universities, the medical and surgical corporations of the United Kingdom, and the General Medical Council, to raise the standard of Arts education for all joining our profession, by establishing conjointly an examination in Arts which everyone, except those with university degrees, should pass previous to commencing the study of Medicine. I should also like to see a consolidation of the great medical and surgical teaching power that exists in our metropolitan centres, but which, owing to the multiplicity of small schools in them, is to a great extent lost to the profession and to the public. Instead of urging the establishment of additional schools, it would be far better to endeavour to bring about such an amalgamation as I have indicated, and co-operate with those who wisely think that among the chief desiderata in our profession is a larger amount of training in a university where the first phases in the life of a medical student can best be spent —viz., first, the preliminary general, and second, the preliminary scientific, education. I am strengthened in this conviction by the fact that during the visitation of examinations recently conducted for the General Medical Council, in which I had the honour of being associated, the visitors frequently observed candidates for the diplomas of our corporations whose general and scientific culture was far below what anyone joining our profession ought to have.

The portals of many of the universities have recently been widened, enabling those to avail themselves of the advantages, social as well as intellectual, which a university affords, who a few years since would have been wholly precluded from so doing. In giving these facilities, Oxford, where the natural sciences were too long proscribed and discouraged, is specially deserving of gratitude. Away from the turmoil and distractions of a great metropolis, the sciences ancillary to, as well as those that are the basis or foundation of, medicine, such as human and comparative anatomy, physiology, chemistry, and histology, can best be studied, aided by all the collateral advantages and noble traditions of an historic university. Such training would assuredly give a healthy impulse and scientific direction to the practical work of a student when he leaves the university to complete his professional studies at a metropolitan school. The universities, especially those in or near the smaller provincial towns, are quite unsuitable for complete practical schools of medicine and surgery, the available material being—having regard to existing modern requirements, and especially as regards pathology—necessarily inadequate.

Having for several years been a surgical examiner in the Queen's University in Ireland, I was forcibly impressed with the truth of the view that, for the practical teaching of surgery and pathology, universities in the smaller provincial centres are hardly able to afford adequate material for the student to acquire a sufficient knowledge of these subjects. The functions of universities, at least those so situated, in relation to medical education especially, should be that of great scientific schools, and not centres for practical clinical study. I feel confident the day will come, when the wise and far-reaching policy of those who have held and maintained such views will be recognised, and acknowledged to be correct.

I am strengthened in these views from the knowledge that they largely coincide with those of one long and intimately associated with the cause of medical education in this country —I allude to the distinguished Regius Professor of Medicine at Oxford, and President of the General Medical Council, whose great and unselfish devotion to the best and highest interests of our profession must ever command our unqualified admiration and respect.

It has hitherto been customary for my predecessors at the annual meetings of the Association either to give a *résumé* of the most recent advances in surgery, and discuss some particular theory or mode of practice on which surgical opinion is more or less unsettled, or dwell on those topics that had proved of special interest to themselves. On the present occasion—one which should be marked *meliore lapillo* —to give a detailed retrospect of surgical advancement during the past half-century would be a task not alone difficult, but, in truth, impossible in the time at my disposal. I purpose, therefore, to dwell on some few topics of great general interest, involving questions still unsettled, and which have more particularly engaged my attention.

However, though a detailed retrospect of the surgery of the past half-century is here impossible, let us, like travellers who enjoy the happy toil of climbing an alpine steep, and who at times pause to look back and take a panoramic survey of the country traversed, see the giddy heights that have been scaled and the difficulties overcome, contemplate the chief advances in our art, the obstacles and opposition that have been swept away, and the breaking of the fetters that so long bound it to a blind empiricism. What have been these advances? The list is a goodly one, and the mere enumeration of them would alone occupy the hour at my disposal; but I may mention a few of those that stand out most boldly in relief. The abandonment of an indiscriminate blood-letting in almost every form of acute surgical disease, of a reckless use of mercury in the treatment of syphilis, and of setons and moxæ in hopelessly irremediable articular and other diseases; the introduction of the pressure treatment of aneurism by Bellingham, Todd, and Hutton; of drainage in the treatment of wounds and abscesses by Chassaignac; of metallic sutures and the perfecting of the operations of vesico-vaginal fistula by Marion Sims; of lithotrity by Civiale, Thompson, and Bigelow; and of stricture by Syme, Wheelhouse, Maisonneuve, Perréve, and Holt; the *renaissance* of joint-resection by Crampton, Syme, and Fergusson; the introduction and establishment on a firm basis of ovariotomy by McDowell, Clay, Spencer Wells, and Keith; of bloodless surgery by Esmarch: of skin-grafting and sponge-grafting by Reverdin and Hamilton; and of osteotomy in genu valgum

by Ogston; improvements in methods of amputation by Bell, Teale, Carden, Syme, and many others; also the operations of gastrostomy, excision of the pylorus, of the spleen, the kidney, supra-pubic excision of the uterus, laparotomy, and cholecystotomy. In connexion with abdominal surgery, I would also allude to the recently published able essays by Sir William Mac Cormac and Dr. Marion Sims, the latter paper dealing mainly with antiseptics and drainage in gunshot wounds—these being, in Sir James Paget's opinion, "the most important perhaps of all the provisions to be made in healing wounds." Again, we have torsion in the treatment of hæmorrhage—a method to which such an impulse has been given by Mr. Bryan; and the treatment of aneurism by arterial ligation, without injury to the deeper structures of the vessels, by the methods of Porter and Barwell. In two cases I adopted Porter's method, using a wire, deligating the femoral artery in one, and in the other the abdominal aorta. Barwell's ligature—made from the aorta of an ox—is a method which has been recently tested in the Richmond Hospital by my colleague, Dr. Thomson, who deligated the arteria innominata for subclavian aneurism. Again, we have, in the treatment of fractures, immovable splints; improved methods of extension by weights, or more perfectly by screw action; of manipulation in the treatment of luxation; and, in spinal disease, the use of the plaster-jacket of Sayre.

I need not dwell on the complete revolution in ophthalmic and aural surgery that has occurred, and of the light that the ophthalmoscope of Helmholtz has shed, not alone on ophthalmology, but on pathology in its widest sense; or on the other instruments of precision constantly made use of. Memorable as these advances would make any era in the history of surgery, they all pale before three I have yet to mention—advances which the surgical historian will doubtless point to and emphasise as the three giant strides that the past half-century has witnessed. I allude, first, to the discovery of the means of banishing pain during the performance of surgical operations; secondly, to the restoration of diseased or injured bones and joints necessitating resection; and, thirdly, the enunciation of the principle and establishment of the practice by Pasteur and Lister of antisepticism in the treatment of wounds. When we reflect that so large a part of these changes in surgical principles and practice has been due to the genius and honest labour of so many workers in the United Kingdom, we may well feel a pardonable pride in British surgery, and confidence in the coming triumphs of our art.

To anæsthetics, antiseptics, and osteogenesis, together with a few cognate topics, I would therefore now invite attention.

Whatever anæsthetic the surgeon selects—whether it be chloroform, ether, or both combined, bichloride of methylene, or nitrous oxide gas—we must admit that, even with the most careful precautions as regards the condition of the patient generally, the anæsthetic selected, the amount of it used, and the mode of its administration, the gauntlet of peril has still to be run. In truth, it is hardly to be expected than an agent which can so rapidly and completely paralyse our senses should not be attended with peril. Of the two anæsthetics, however, that surgeons as a rule mainly rely on—ether and chloroform—much has of late been done to diminish risk by limitation of the amount of the anæsthetic used; by the gradual introduction of it into the system; by the avoidance of ether in infancy and extreme age, in the puerperal state, in hysteria, and also when there is reason to suspect the existence of any acute or chronic form of renal or pulmonary disease. In the use of chloroform the ever-present risk of cardiac paralysis appears to be increased when any functional or organic disease of the heart is present, and is, therefore, in such cases, distinctly contraindicated.

Although the number of accidents connected with the use of anæsthetics is fortunately very limited, still I feel sure that by more accurate knowledge of the facts I have mentioned, by entrusting solely to persons of experience and judgment the duty of administering anæsthetics, and by a stricter adoption of the rule so happily formulated by Mr. Jonathan Hutchinson in reference to the desirability of using chloroform in cases below six and above sixty years of age, the number of these regrettable accidents would be still further largely diminished. In the majority of cases, however, I would unhesitatingly prefer ether. In using it there is greater economy of time; it is, with the necessary precautions taken, safer; there is, as a rule, less sickness; and return to sensibility is slower. To obtain these advantages—which, with others, have been so well and systematically formulated by Mr. Teale (*British Medical Journal*, March 11, 1882)—regard must be largely had to the method employed of administering it; and I am of opinion that one in which the air is rebreathed by the patient, as in the inhalers of Morgan, Ormsby, and Clover, should be preferred, as so great an economy is effected thereby, not alone of ether, but of what is of far greater importance, of heat in the air-passages, the inspiration of a large quantity of cold ether vapour tending to induce respiratory syncope.

In these instruments, the inhalation of a combination of ether-vapour and carbonic acid gas occurs. It does not, however, appear to be clearly ascertained whether in this fact there is the introduction of an additional element of danger, or not. Opinion on this point is still greatly divided. One would say, *à priori*, that there was; but experience has not established the fact.

Of the countless benefits conferred on man by anæsthetics, of the suffering prevented, of the absence of all anticipatory fear of suffering, of the happy subsequent oblivion of all the horrors and details of the operation, and of the diminution of shock, it is unnecessary to speak. To these must be added the advantages which enable the operator to act with a deliberation and calmness, enjoying freedom from anxiety and care he could not otherwise have. Advantages such as these cannot be over-estimated, being as signal to the patient and the operator as they are to surgery.

Although there is traditional evidence that the anæsthetic properties of certain plants—notably the mandragora—were known to the physicians of ancient Greece and Rome, and that in 1800 our distinguished countryman, Sir Humphrey Davy, mentioned that nitrous oxide was "capable of destroying physical pain, and may be used with advantage during surgical operations," still it was not until 1846 that anæsthetics came properly within the domain of practical surgery, when Morton, in the Massachusetts General Hospital, first demonstrated the possibility of inducing anæsthesia by the inhalation of ether.

To Simpson is undoubtedly due the credit of discovering, in 1848, the anæsthetic properties of chloroform, and in giving an impulse to its adoption, such as his brilliant intellect alone could give; but still we must cordially, willingly, and gratefully endorse the opinion of Professor Gross, that, "if America had contributed nothing more to the stock of human happiness than anæsthetics, the world would owe her an everlasting debt of gratitude."

Considering that the treatment of wounds is, in Professor Humphry's words, not merely "the first stone, but also the corner-stone of surgery," antiseptic practice should rank, in my opinion, as the greatest of the surgical advances that the past half-century has witnessed. It deserves a special attention, not merely on account of the results of its adoption, but also because surgical opinion is still so divided about it—an unsettlement to which an impulse has been given by Mr. Savory's remarkable address at Cork, and by the observations on the value of carbolic spray made by Mr. Lister himself at the International Medical Congress last year. As regards Mr. Savory's denunciation of Listerism, I would say that, after reading it, and also the able reply to it by my colleague, Dr. Thomson, one cannot but come to the conclusion that, when the address is stripped of all its brilliant eloquence and rhetorical decoration, two facts are, to our surprise, brought clearly to light. One is the admission of the germ-theory of putrefaction; and the other, that the method of dressing employed by Mr. Savory is essentially antiseptic, consisting as it does of many of the features that characterise Listerian dressings: for example, carbolised catgut ligatures, carbolised oil, drainage, and washing the wound with a weak permanganate of potash lotion or "some other potent antiseptic." Now, as the author of the reply to which I have referred properly asks, "Is this method fittingly characterised by its simplicity and the entire absence of all novelty?"

In reference to Mr. Lister's statement on the value of carbolic spray, about which there has been so much unfortunate misconstruction and misunderstanding, I would certainly say he did not surrender his position in any way. He did not, as was said to me, in terms more picturesque than accurate, by an eminent surgical friend on that occasion, "inter antiseptic surgery, and then sing a dirge over it." On the contrary, he stated that he looked forward t

obtaining a more perfect and convenient mode of asepticism than that afforded by carbolic spray.

Considering the subject from a purely practical point of view, it appears of little consequence whether we accept the views recently discussed by Dr. Burdon-Sanderson, or those of Ogston and Hueter, the former maintaining that the inflammatory exudates of a wound do not depend primarily on the contact with them of atmospheric organisms, but that their secondarily infective character does; in other words, that atmospheric organisms *per se* are not necessarily a source of danger, nor do they predispose to the formation of inflammatory exudates, but that they do exercise a baneful influence on the latter by rendering them infective. To quote his words, "they are not so much mischief-makers as mischief-spreaders." Two distinct functions are attributed by Burdon-Sanderson to these organisms—one of "developing what may be called the phlogogenic infection, and that of conveying it to all parts of the body." Ogston and Hueter, on the other hand, maintain, and furnish strong arguments for their views, that septic organisms are primarily the sources of all the inflammatory and other troubles to which wounds are liable, and that, under aseptic conditions, these dangers can be avoided. It is not my purpose to discuss which of these theories is likely to be correct; for, whichever view we adopt, the necessity for thorough antiseptic precautions remains the same. Assuming that Burdon-Sanderson's theory be correct, and that inflammatory exudation is the physiological and harmless outcome of a traumatism, can we say how long it will remain so; how long or how short a time it may take to become infective—whether days, hours, minutes, or seconds? Is it not in accordance with all reasonable probability that the time must be ever-varying? And, assured of this, should we not take every precaution to prevent the entrance, neutralise or destroy the *nora* or septic agency? Have we any means of estimating the power of resistance to the action of septic agencies, or of telling when will commence those chemical putrefactive changes, the sources of the disasters of surgery which antiseptics so powerfully strike at, prevent, and destroy?

The essentially weak point in the persistent and obstinate opposition to Listerism is the almost universal admission of the truth of the germ-theory of putrefaction. If the fantastic theory of heterogenesis had not long since been swept into the deserved limbo of other exploded doctrines, there would be some scientific standpoint for those opposed to Lister's theory and practice. But not having this, and admitting the truth of the germ-theory of putrefaction, they surrender their position. An attempt has been made by Mr. Lawson Tait to draw a distinction between the effects of germs on dead and living tissues, the only serious consequences being, it is alleged, those which result from their introduction into the system through the medium of dead tissue. Such is the contention. In a word, it comes simply to this: that, if the dead-tissue factor were non-existent, the organisms would remain harmless; if, on the other hand, it be present, they become hurtful. But those who hold this view ignore the elementary fact that there never was a wound, and especially one in which vessels are tied or twisted, in which dead and living tissues were not at once brought into contact. Assuming, however, that this was not the case, has it not been shown on clear evidence by Dr. Burdon-Sanderson that septic agencies generated in the organism may induce idiopathic inflammation without the medium of dead tissue? Also that, in acute peritonitis, septic organisms can, through the medium of the lymphatic vessels, be conveyed into the blood-streams, and, to use his words, "carry with them a phlogogenic virus, by virtue of which, wherever they lodge, they become the starting-points of infective abscesses." Again, that similar phenomena are observed in connexion with ulcerative endocarditis, confirming the observations of Weigert that, in variola, they find their way "in myriads" into the circulation, and eventually find a resting-place in the capillaries of the internal organs, where they become nuclei of infective abscesses (*British Medical Journal*, April 15, 1882).

If such phenomena are capable of being produced in the organism without the intervention of dead tissue, which appears to stimulate septic agencies to such pernicious activity, there is certainly all the more reason for using means to neutralise or destroy them, when, as in all wounds, dead and living tissues are brought into contact.

Those who advocate and practise what they are pleased to term a "modified" antiseptic system, attempt, in fact, in a roundabout, clumsy, inefficient way, to do precisely what those who practise Listerism achieve by means which are the outcome of accurate scientific research.

The aim in both cases is to neutralise or destroy the agencies which predispose to, and produce the *materies septica*—in the one instance by numerous uncertain and often inefficient methods; and in the other, by the unerring artillery of chemical agency.

Among many depreciatory remarks that have been made in reference to Listerism, is one based on its alleged want of originality. It has been stated that both antiseptic principles and practice were understood, recognised, and appreciated by many of Mr. Lister's predecessors and contemporaries. Foremost among the latter, M. Maisonneuve has been mentioned. Having attended the clinique of that eminent surgeon for two sessions, in 1864-65, I am in a position to mention the nature of the wound-dressings then employed by him. With a large syringe, a quantity of a weak solution of *acide phénique* was applied to the wound; then a piece of linen or cloth, perforated with numerous openings and covered with a yellow-coloured grease, was placed on the wound, secured by a dry compress and bandage. Such were the antiseptic dressings of which Lister's, it is alleged, are only a somewhat complicated, expensive, and, in many cases, dangerous reproduction.

It has been stated that ovariotomy should be considered the touchstone of the efficacy of the antiseptic treatment of wounds. I do not think so (although my successes in ovariotomy date from the time I adopted the system), and for the reasons given by Professor Lister. First, the disposition of a large serous membrane to absorb rapidly the plasma from the cut surface, the absence of tension, the high vital power of the peritoneum in uniting after being wounded; and, lastly, that bloody serum is an unfavourable medium for the growth of micro-organisms—a fact directly at variance with the dictum of Keith, that it is the "enemy of the ovariotomist." One of the best tests, if not the best, for the value of antiseptic practice is resection of the knee-joint, as there are so many circumstances that militate against immediate union being obtained after it. In the first place, the cases requiring so formidable an operation are, as a rule, in a condition of great physical exhaustion consequent on long confinement, and probably protracted suffering of mind and body. The wound is of necessity a large one; the operation occupies a considerable time; two large freshly cut bone surfaces are made, between which union is to take place; and, lastly, there is the great difficulty of keeping, no matter what appliance be adopted, the limb absolutely at rest during the process of union. Before the adoption of Listerism the surgeon anticipated that four, six, or eight months, or longer, would elapse before union took place, and it was always a subject discussed at consultations on these cases, previously to operation, whether the patient would have strength to endure so protracted a suppuration. As an illustration of how changed matters are now, in a series of fourteen of my cases of excision of the knee-joint, the wounds in nine of them united without a trace of pus-production; and in the last of them only two dressings were required subsequent to the one applied at the time of the operation, and in seven weeks after the patient was up and going about. Another antiseptic triumph was the case of a boy with extensive necrosis of the fibula, sinuses and suppuration existing at the time of the operation. I excised subperiosteally the diaphysis of the fibula, and the case pursued a perfectly aseptic course, the evidence of new bone-formation being also incontrovertible. From the fact of there being no pus-production subsequent to the operation, notwithstanding the pre-existence of suppurating sinuses, a special interest attaches itself to this case. I can only account for this exceptional circumstance as a result of the careful washing of the sinuses by carbolic acid and zinc chloride solutions. A still more remarkable case was that of a youth who was under my care last November. He trod on a triangular piece of glass, which having passed deeply into the sole of his foot, was with difficulty extracted. An acute suppurative inflammation, involving the ankle-joint and extending as far as the knee, was the outcome of the injury. There was indicated by both pulse and temperature very high fever, and the condition of the patient was most critical. I made free incisions under the spray on both sides of the ankle-joint, and gave exit to pus and synovia in large

quantity. Into these openings I injected a weak solution of eucalyptol, and inserted Neuber's drainage-tubes. Next day I found pulse and temperature normal, and from this the case pursued an aseptic course, and in less than a month after the patient left the hospital, the foot being in a perfectly normal condition, all motions of its joints being free and unattended with the slightest stiffness or pain. In another case, I cut down on an anchylosed hip (the limb being so flexed as to be perfectly useless to the patient), and divided the neck of the femur with an osteotome, and straightened the limb. The wound healed without pus-production, and a freely movable false joint was formed, and the patient is able to walk several miles without inconvenience.

Another antiseptic triumph was obtained in two cases of amputation at the hip-joint. In one of these there were pre-existing sinuses and profuse suppuration, and, notwithstanding, I succeeded for eight days, during the most critical period of the patient's convalescence, in keeping the wound aseptic, and preventing the occurrence of surgical fever. The result in the second case was more remarkable: not only during the healing of the wound was there no pus-production, but pulse and temperature hardly ever rose beyond the normal standard. The skin was unbroken, and on the evening previous to, and also on the morning of the operation the patient had a eucalyptol bath. Looking at these few cases—few, not because I could not largely supplement them, but because they are sufficient for my present purpose—I would ask, Could such results have been obtained previous to the Listerian teachings of the principles and practice of antiseptic surgery? There can be but one reply —Impossible.

In giving the details of these antiseptic triumphs I may be considered dogmatic and egotistical. If so, I regret it, for nothing could be further from my desire; still less would I seem captious or actuated by any partisan spirit. I have mentioned them solely through a desire of having the truth recognised and established, and because personal experience is the soundest basis of honest conviction.

As regards the hygienic effects of the practice, I may mention some facts of interest noticed by me and my colleagues in the hospital to which I am attached. The building is a very old one, and was not constructed originally for a hospital. None of the more modern arrangements, now considered so essential, as regards heating, light, ventilation, etc., exist. It is situated in a poor, very densely populated part of the city, with tenement-houses, dairy-yards, cattle-sheds, and stables in its neighbourhood; and some of the houses in its immediate vicinity have been designated by the medical officers of health as "fever-nests." When I was a student there erysipelas and pyæmia were not infrequently observed after operations even of no great magnitude; hospital gangrene, too, I have seen several instances of—in fact, these three diseases constituted a grim trio, of which the surgeons had not unnaturally a dread. Let it not be thought that the occurrence of these was in any way to be attributed to want of care and attention to cleanliness. No cases could in this respect be more conscientiously or carefully managed. What now exists? Hospital gangrene is an extinct disease, nor have we observed during a period extending over six years a single case of erysipelas, septicæmia, or pyæmia following an operation in which the practice of Lister was accurately carried out—*accurately*, for everything depends on that. The practice has been well compared to a coat of mail, which secures the wearer so long as it is perfect, but any missing link in which may admit the *lethalis arundo*.

Similar testimony to what I and my colleagues can state has been given by many foreign surgeons of eminence, among whom I may mention von Nussbaum, Bardeleben, Thiersch, von Langenbeck, Volkmann, Esmarch, Saxtorpf, Championnière, and many others.

Much blame has been cast on Professor Lister and his followers for not having had recourse more largely than they have done to statistics, to prove the superiority of antiseptic practice over the older and alleged simpler methods of wound-dressing, and to show that, by the use of the former, we are more independent of those epidemic influences that have hitherto been so pregnant with disaster in operative surgery. It is not my purpose here to discuss the value of the surgical statistics that have been adduced to prove that the alleged simpler methods of wound-dressing are of equal efficacy to those of Lister, especially as most of them have a strange family resemblance to the latter; but this I will say, that whatever value is to be ascribed to accumulated figures—often sadly fallacious—that value is not to my mind greater, or at all so great, as the often repeated occurrence of test-cases, recorded daily, not alone in a particular hospital, town, or country, but in hospitals in all climates and conditions, where the hygienic surroundings are brought to the highest known degree of perfection, as well as where they are in a condition the most deplorable. Such records carry more weight with me than the inflated statistics from any particular hospital, or the alleged results obtained without antiseptics after any special operation or group of similar operations.

Mr. Savory dwelt at great length on the statistics of operations at St. Bartholomew's Hospital. These were, no doubt, very important, and probably carried conviction to the minds of most of his hearers as to the soundness of the conclusions drawn from them. In various points, however, they were unsatisfactory to me. For example, among others, no mention whatever was made of the operation of ovariotomy, in which procedure, although some regard Listerism as positively injurious, still many others take an opposite view, and think with myself that it has probably done more than anything else to diminish the mortality of the operation. It was unfortunate, in my opinion, that the facts in respect of this particular operation at St. Bartholomew's Hospital, before and after the introduction of Listerian antiseptic practice, were not stated.

Although I do not regard surgical statistics with the reverential awe that some do, who look upon them, in fact, as a sort of tribunal beyond which there can be no appeal. I observe that in a record of upwards of six hundred operations performed by myself and my colleagues at the Richmond Surgical Hospital, during the past three years—an institution which I have already spoken of as being hygienically in so unsatisfactory a condition—the mortality was 3·6 per cent.; and there was not a single case in which Listerism was accurately employed that was followed by any infective disease.

The discovery of anæsthetics, and the means of inducing osteogenesis, have largely widened the field of practical surgery. When we consider the revolution that has taken place since the introduction of antiseptics in the treatment of compound fracture, of abscesses—especially those symptomatic of bone-disease,—of bursal tumours, of congenital as well as acquired osseous deformity, of ununited fractures, including those of the patella and olecranon, of foreign bodies in joints, of hæmorrhage and aneurism by antiseptic ligature, and of various diseases and injuries of the abdominal organs, indicating the operations already mentioned,—this may, I think, be said with even greater truth. To these may also be added certain thoracic affections, such as empyema, pericardial effusion, and pulmonary abscess, by which the wide gulf that so long existed between medicine and surgery has been to a great extent bridged over—uniting them together firmly, strongly, and for ever.

It is a subject of regret to me that so many surgeons of long experience, and of great and deserved eminence, have been found who have either been disposed to discredit a thorough antiseptic practice altogether, or to have given but a very lukewarm adherence to it. Much allowance, however, must be made for the well-known and not unnatural dislike to change on the part of those, many perhaps advanced in life, whose early training has been so different to that now available. With their successors, more fortunately circumstanced in this respect, the case is different. Their condemnation has, I fear, been the result of apathy, indifference, and, in some instances, indolence, preventing them taking the trouble to learn either the principles or the details of the practice.

Representatives of what may be termed a Rip Van Winkle school of surgery, they differ in one respect from the mythical personage just alluded to. His ignorance of what was going on about him was the result of involuntary unconsciousness. But his surgical analogues, I fear, wilfully refuse to see, wilfully refuse to acknowledge, and wilfully refuse to recognise what has been and is being done. Strangely unmindful of the fact that honest scientific toil has never yet proved other than fruitful of good, they promulgate views ever acceptable to ignorance and indolence; and I make the land ring with the false and cruel tale

that the value of Listerism is a delusion, a bubble, a shadow, and a myth—at once expensive, complicated, and poisonous. If, on this latter account, it is to be rejected, then may we, with equal justice, say: "Away with anæsthetics; away with opium, mercury, belladonna,—with half, or more than half, the means at our disposal for alleviating human suffering and prolonging life."

In the interests and for the credit of British surgery it is time so unrighteous a warfare should cease. It is time that the irritating dust of an unreasoning prejudice should be swept away. It is time that one of the greatest discoveries and boons to surgery this century has produced should be universally recognised as such. It is time that its discoverer and exponent should be acknowledged as one of whom it may well be said—

> "With Genius, Nature joins in everlasting covenant still;
> The promises of one, the other fails not to fulfil."

The methods adopted for bringing about a regeneration of bones and joints necessitating resection on account of injury or disease, constitute an advance in surgery of such interest and practical importance as to distinctly merit special consideration. To adopt a measure by which the main support of a limb, when diseased, and not only rendering that limb useless, but also perhaps imperilling life by pain and exhaustive suppuration, can be removed, with not a mere probability, but in many instances almost a certain confidence, that it will be restored to the patient, is a triumph than which it is hard to conceive one of greater importance among the developments of modern surgery. The subject has been of keen interest to me for many years, since the time when, in 1865, I witnessed in Lyons many of M. Ollier's experiments, and subsequently repeated them. Strongly impressed by what I then learned, I have since in practice, as suitable cases presented themselves, adopted periosteal preservation in various operations on bones and joints—a procedure with which the names of the eminent surgical trio, Syme, Langenbeek, and Ollier, must for ever be associated. The operative measures on which my experience is based are —resections of the elbow, shoulder, and ankle-joints; resection of the diaphysis of the fibula in its entirety; resection of the greater portion of the ulna; of metatarsal and metacarpal bones; and, lastly, of transplantation of periosteum, as a part of the so-called Indian rhinoplastic operation. Still, though the good results obtained by this practice are, in properly selected cases, not open to question, there can be no doubt as to the existing unsettled condition of surgical opinion in reference to the value of the procedure. This, I believe, arises from a twofold cause—one being traumatic, from insufficient care being taken during the detachment of the membrane; and the second, the non-differentiation on the part of surgeons of the cases likely to be benefited, and those in which the adoption of the practice is, as a rule, attended with disappointing results. As to its value, when the membrane is comparatively healthy, and the patient young, there can be no question. The activity of bone-production and other signally gratifying results of the practice must be acknowledged when performed under these circumstances. These results, however, are not so striking when the patient is an adult. In some cases, no bone-production whatever is observed, and in others the osteogenetic process is slow, the product weak and liable to become absorbed. It should also be borne in mind that, in early life, the membrane has a dual function; one, that of increasing the thickness of bone, and the other the repair of waste. In adult life it is mainly confined to the latter. This rule, however, is not without exception. One instance I can recall of a man aged forty-two, on whom I performed a resection of the upper end of the humerus on account of carious disease. The result was eminently satisfactory; not only was there a reformation of the bone removed, as evidenced by comparative measurement, but also a pseudo-arthrosis so perfect as to enable him now, as I have recently learned, to use his spade, to plough, and perform with efficiency all the ordinary duties of an agricultural labourer.

Another point worthy of consideration is the value of the practice in adults and children when the membrane is found to be thickened and pulpy. Among the former, as mentioned by M'Ewen, the osteogenic layer is, as a rule, found to be destroyed, the outer layer thickened, vascular, and lined with granulation-tissue, which soon undergoes fatty degeneration. From such a condition no bone-production could possibly be anticipated. On the other hand, a thickened, vascular, cell-infiltrated, softened condition is not incompatible with its osteogenic layer being intact, and its activity in bone-production unimpaired; in truth, not unimpaired, but exalted, as we observe in acute necrosis, and also in the development of syphilitic nodes. The condition of fatty degeneration of the osteogenic layer is found among both adults and children, but more frequently among the former. When found among the latter, the cases are, as a rule, badly nourished, anæmic, weakly, and scrofulous. The thickened, vascular, but intact condition of the membrane is what is observed among young persons, and its preservation, therefore, is obviously indicated. In adults it is rarely observed.

The efforts to produce bone in experiments on the lower animals by periosteal transplantation have not been attended with any very marked success, nor have similar attempts in man been specially encouraging. In only one instance did Ollier obtain distinct evidence of bone-formation from grafted periosteum. In the Indian rhinoplastic operation I have undoubtedly succeeded after transplanting the membrane from the frontal bone in satisfying myself of the existence of bone-reproduction. When left attached to bone, as in von Langenbeck's modification of this operation, the result has not been so good, owing to the liability to necrosis of the transplanted or detached portions of bone.

As regards bone-transplantation I cannot speak from any personal experience; but, in connexion with this all-important subject, I must allude to the great stride made in this direction by Dr. M'Ewen of Glasgow. The case of inter-human osseous transplantation in which over two-thirds of the shaft of a humerus was restored, and an account of which was communicated to the Royal Society last year, is one which must stand out in bold relief in the history of this new departure in operative surgery—one which is with many others an outcome, indirectly perhaps, but not the less a result, of antiseptic surgery. For the experience derived from observing the progress towards good union and without pus-production of bad compound comminuted fractures, when pieces of bone completely separated, and even detached from periosteum, have, after being antisepticised, been replaced, lived, and eventually united to the neighbouring osseous structures, tends, as M'Ewen has pointed out, to show the probability of transplanted bone living. The practice of inter-human osseous transplantation is one which of necessity is applicable to only a very limited number of cases, and the means of carrying it out must rarely be available, as fresh, human, healthy osseous transplants cannot often be obtained. The case, however, which I am glad to say I had an opportunity of examining, is so pregnant of interest, and so suggestive, that it must serve as an incentive to further effort to guide and encourage those working in this direction.

The subject of periosteal preservation naturally leads to that of joint-resection, in which it has played so important a *rôle*. The resection, however, I wish more particularly to allude to—namely, that of the knee—is less associated with periosteal preservation than the other excisions. The surgical merits of this operation being so important and so vexed a question, make it worthy of special notice. I will not, however, dwell at any length on the subject, having regard to the fact of its having been recently so ably handled by Mr. Holmes at the meeting of the Association at Cambridge.

It is not surprising that its position as one of the resources of surgery is not yet generally appreciated, and that controversy should still so hotly rage about it, when we reflect that the majority of surgeons have hitherto regarded it in the light of a substitute for amputation. In doing so, a grave error has been committed, for the indications for one of these operations should never be those for the other. If we accept the view that tuberculosis, more particularly as regards its articular manifestations, is primarily local, but, as shown by Klebs, like cancer or syphilis, transmissible and capable of producing a general infection—a view that, mainly from a clinical standpoint, I accept,—then the question of the importance of early resection at once comes to the front. But it may be, and has been said, notably by Mr. Mc Namara, of London, that in the early stages of strumous articular disease, affecting mainly the synovial membrane, rest, good diet, and "convalescent homes" will suffice to cure the disease, at this period of its development. I admit they may, but in a very small proportion of cases. I would be equally ready to admit that in a small

proportion of cases intermittent fever may get well without quinine, syphilis without mercury, iritis without belladonna, and primary union without antiseptics. Who, however, would maintain that, because in a small minority of cases the desired results are obtained without such aids, therefore it was open to discussion whether they should not be abandoned altogether? In dealing with a broad question, such as the surgical merits of knee-resection, the question as to a treatment that is only applicable to a small fortunately circumstanced minority, and the advantages of which are very problematical, should scarcely be mentioned when a practice is under discussion applicable to the masses of mankind in all countries, climates, and conditions, without convalescent homes at their disposal, or ways of getting constant skilled aid in carrying out an "expectant" treatment for two or three years—a treatment from which no better result than anchylosis can be expected. In patients, too, with a predisposition to secondary tuberculous deposits, the probability of the recurrence of the disease after "expectant" treatment must be borne in mind.

From my experience, I believe that excision of the knee should not be looked upon as a last resource, but that the operation should be performed before any profound organic changes take place, and that when the following conditions are fulfilled—an unbroken skin (an all-important factor), the disease limited, and to the soft structures, an efficient method of fixation applied, and a rigid system of antiseptic dressing of the wound adopted—primary union may in the great majority of cases confidently be anticipated. The alleged unfavourable results of the operation, especially in early life, are distinctly opposed to my clinical experience.

In another group of operations—namely, in amputations—the preservation of periosteum is, according to von Langenbeck, Trélat, and others, attended with advantage. The formation of a periosteal curtain, to cover the cut surface of the bone and its medullary canal, is believed to act as a shield or barrier against septic agencies, and diminish the chance of the occurrence of some of the secondary calamities, notably osteomyelitis, following amputations. The method I have in some instances adopted, and with success, is making a somewhat quadrilateral-shaped flap at the membrane and letting it fall over the cut surface of the bone. Another method, that of M. Trélat, is to detach the membrane all round the bone for fully an inch below the point where the bone had to be divided, making, in fact, a sleeve-shaped flap. This plan must, however, materially protract the operation.

This leads me to consider some other comparatively recent improvements in the operation of amputation, and to bear my testimony to the great advantages to be derived from the adoption of the principle of long anterior flaps, the chief credit for establishing which belongs to the late Mr. Teale, of Leeds; and it is a source of pleasure to me that the advantages from his method of amputation were so soon and continue to be so fully recognised and appreciated in Dublin. In reference more particularly to thigh amputation, I cannot refrain from noticing the procedure in which the principle of the long anterior flap is embodied—namely, the "single flap" or "single-skin flap" operation of the late Mr. Carden, of this city. In introducing this operation, he won for himself a lasting repute for originality, ingenuity, and skill; and I am sure that, in expressing a deep regret at the absence from among us this day of so accomplished and able a surgeon, so wise in counsel and full of resource—in whom, in truth, were to be found all the qualities of a great surgeon—I only feebly, perhaps, give utterance to the thoughts of all those who knew him, appreciated him, and had the privilege of his friendship.

Gritti's operation undoubtedly owes its parentage to that of Carden; but, although the retaining of the patella, and consequent preservation of the normal attachments of the extensors of the leg, is a plan as good as it was original with Gritti, still the details of this method prevented the realisation of those advantages which in principle it embodied. Hence the modification which I have ventured to term "supra-condyloid amputation"—an operation which, retaining the advantages of Gritti's method, eliminates its defects by lengthening the anterior flap, forming a posterior flap one-third in length of the anterior one, suturing the patella and femur together; and, lastly, and most important of all, by making a high femoral section, but not one involving the medullary canal.

The special advantages that may be claimed for supra-condyloid amputation are:—

1. That the posterior surface of the anterior flap being covered with a natural synovial membrane, the chances of suppuration and purulent absorption are diminished.

2. Any possibility of the split patella shifting from its place on the cut surface of the femur is prevented by the high femoral section, and by suturing the two bones together.

3. The vessels are divided at right angles to their continuity, and not obliquely, as in other flap operations.

4. The existence of a posterior flap diminishes the chances of any wide gaping of the wound; while the anterior flap, being oval, increases the chances of the stump tapering gradually towards its extremity, and assuming the form of a rounded cone.

5. The preservation of the normal attachments of the extensors of the leg.

These advantages embody those of both flap and circular amputation of the thigh, and, at the same time, eliminate their defects.

Although there are many other surgical topics of interest and importance I should wish to discuss, did time permit, there is one bearing directly on surgical progress which, though it must be but briefly alluded to, I wish particularly to mention. Recently, all who have at heart the progress of scientific medicine and surgery must have rejoiced at the formation of the Association for the Advancement of Medicine by Research. This step augurs well for the future of physiology—the science which is not alone the foundation, but also the framework of surgery, as it is also of medicine and pathology.

At the opening meeting of the Association, Sir George Jessell (the Master of the Rolls) well remarked that there are two things the public require to be instructed in—one, that the future progress of medicine must rest on science; and the other, the necessity for experiments on animals. The great practical difficulty, however—one which, I hope, in time will be overcome—is that the Association will have to deal with a section of the public who refuse to be instructed; refuse to recognise established facts; refuse to weigh evidence; substitute groundless assertion for argument; and wilfully and deliberately accuse the scientific physiologist of a selfishness and cruelty as heartless as it is cowardly. In creating so unjust a prejudice, there is in some instances, doubtless, an unconscious, but in many others, I fear, a wilful attempt to pervert the moral sense of the public. It will be no light task for the Association to instruct such persons, whose wrath is reserved—not for the sportsman, *gourmet*, or military tyrant, but for the physiologist, who is outlawed if he does not fulfil all the vexatious conditions of an extraordinary Act, the passing of which was simply an insult to our profession, whose aim is ever, not to cause suffering, but to relieve it—not to destroy life, but to save it; and who are ever ready willingly to imperil, and often, with true heroism, to lay down their own lives to save one that is, perhaps, worthless to all but the possessor of it. If in this contention a heartless cruelty is found, on which side is it? Is it with those whose objects I have indicated, or with those who hinder and thwart the realisation of them?

It has been stated, with the inaccuracy that, as a rule, characterises the utterances of, in many instances, perhaps, well-meaning, but not the less essentially mischievous section of the community, that takes so keen a pleasure in discrediting experimental physiology, that no practical benefit has accrued to medicine or surgery from it. I would, leaving what has been done in this direction in medicine to other and abler hands, suggest to their consideration a study of Mr. Gamgee's recently published and able work on "The Influence of Vivisection on Human Surgery." In this it will be seen that many of the most important developments of surgery are the direct outcome of physiological experiment—as, for example, subcutaneous surgery, arterial ligation, torsion, transfusion, the introduction of the écraseur, periosteal preservation, artificial respiration; and, among others, such operations as nephrectomy, ovariotomy, excision of pylorus, and amputation at the hip-joint; and last, but not least, the introduction of the hypodermic injection of various medicinal agents.

It seems, however—and with shame we must confess it,—that we are living in an epoch in which the labours and achievements of the greatest physiologists and surgeons,

both living and dead, are forgotten and ignored; and for those who endeavour, even at a long interval, to follow in their steps, the statute, which is a blot in the history of scientific progress in England, has been enacted, and enacted by those who are every day only too willing to avail themselves of the great advantages resulting from labours which now cannot be continued, save under restrictions which are well-nigh intolerable. Professor Tyndall has well said that, "however noisy the fanaticism of the moment may be, the common sense of Englishmen will not, in the long run, permit it to enact cruelty in the name of tenderness, or to debar us from the light and leading of such investigations." The great fact to be taught, the great fact to be learned, is, that to experimental physiology must we chiefly look for the means of lighting the paths traversed by those who work in the van of medical and surgical progress; who work, conscious that, compared to what may be hoped for in the future, the advances already made are only—as Newton said of his greatest achievements—like those of a child playing with the waves as they break upon the sand. But

. . . . "Strong in will
To strive, to seek, to find, and not to yield,"

they still labour to realise the fair aspiration that the book of Life may yet be read, not by the dim and flickering rays of opinion, but by the clear and steady light of ascertained fact: seeking for means to baffle those diseases, fruitful sources of so much sin and sorrow, that up to this have defied our best-directed efforts to destroy: earnestly striving to rescue medicine and surgery from the mists and shifting quicksands of mere clinical observation, and fix them on the foundation of science: and who, ever yearning, like Goëthe, for "Light—more light," patiently seek in the exhaustless world of Nature for the golden grains of truth.

Are these efforts to be thwarted and hindered in the country of Harvey and Jenner? It has been well said by Jellett that "the place which our country holds among nations must be fixed by the labours of her children; that their success is her glory; that their defeat or dishonour must fall darkly upon her." On us it devolves to see that nothing is done that may render such defeat possible; nothing done that will allow the laurels of scientific medicine to be cruelly snatched from us, and transferred to other countries and other peoples. This may, perhaps, be called a selfish form of patriotism. Perhaps it is; but, if so, I would ask, need we be ashamed of it?

I have mentioned many achievements in surgery the past half-century has witnessed. Fifty years hence this great Association will, I hope, meet here again to celebrate its centenary; and my successor will, I trust, with greater ability and eloquence than I can command, tell of as great or greater triumphs than I have done. To enable him to do so we can all aid—some powerfully, others feebly,—but still every unit in this great brotherhood can assist; and it should be our ambition as well as our prayer that, when the hour arrives for us to cease from our work, we may all feel, on looking back on our lives, that we have done something to that end—something, be it great or small, in the interests of our common humanity, in the interests of our loved country, and of a pure devotion to truth, to render the science to which we have devoted our lives nobler and fairer than before.

SANITARY INSTITUTE OF GREAT BRITAIN.—The fifth autumnal Congress and Sanitary Exhibition of this Institute will be held at Newcastle-upon-Tyne, on September 26 and following days, under the presidentship of Captain Douglas Galton, R.E., C.B., F.R.S. Among the Vice-Presidents are the Right Hon. the Earl of Durham, Right Hon. Lord Algernon Percy, Right Rev. the Lord Bishop of Newcastle, Sir W. G. Armstrong, K.C.B., and others. Professor De Chaumont, M.D., F.R.S., has consented to give a lecture to the Congress.

EXTRA-UTERINE FŒTATION. — In the *Gazette des Hopitaux*, June 9, M. Fort relates the case of an extra-uterine pregnancy which dated eight years back, and for which he performed laparotomy, in a mulatress thirty-five years of age, at the Pétropolis Hospital, Brazil. The fœtus was in a state of fatty degeneration, and surrounded by a chorion one millimetre in thickness, and resembling thick parchment. The recovery was very rapid. The placenta was absent.

ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF MEDICINE.

At the Annual Meeting of the British Medical Association, in Worcester, August, 1882.

By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S.,
Senior Physician to the General Infirmary, Leeds, etc.; President of the Section.

MODERN FREEDOM OF THOUGHT, AND ITS INFLUENCE ON THE PROGRESS OF MEDICINE.

GENTLEMEN,—Fifty years of patient and self-forgetful toil have passed over the field of medicine since the foundation of this Society. Now, as then, we stand looking upon a boundless and unvintaged land, yet our fifty years of husbandry have not been unkindly nor our hands unfilled with plenty.

We may say, indeed, in this later time that the gleanings of Ephraim are more than the vintage of Abiezer; for, as Hastings, kindling with the new spirit of his time, was both its child and its leader, so this Society, which he founded, has been both the product and the organ of a wondrous increase in scientific medicine. What is that spirit—that *afflatus aliquis divinus*—which in this century has expanded and transfigured our art? It is not the new power of unity alone—that strange new function which is bred in gatherings of men, a thing higher and other than the mere addition of individual faculties; this union the Press and the railway have made possible; but there is that something more which has made these means—some masterful expansion which has widened the life and nerved the arm of modern science; which has given breadth to our thought, stuff to our logic, reality and endurance to our doctrines—whence comes this? This comes, gentlemen, of the gift, without which all other gifts are but as apples of the Dead Sea—the gift of freedom. The withes whereby for a thousand years men were bound in body and soul are broken; the dissolution of that tyranny which stalked, haltered, and baited the man who dared to think for himself is fulfilled in our own time, and no longer is it declared to men, "Thus, and thus only, shalt thou think of God and Nature!"

Man has won three victories: he has vanquished the terrors of the old world, brought forth food, warmth, and light upon the face of it, and thus ceased to be Caliban, the earth slave. Then man became a nation; nations strove for the mastery and political freedom; his second victory was won.

Lastly, with the earth his servant and his civil rights secured, the final and crowning work remained, to win the freedom of his mind. Modern civilisation has much to answer for, but it is a glorious thing to live in the first years of perfect freedom; nay, even to live in perhaps the first generation since Pericles, which has dared wholly to cast off the dominion of external authority and to think for itself. Upon a narrow foundation and under transient conditions in Hellas, this complete freedom of man was attained for a brief period. Brief indeed as was the moment, yet even then was revealed to him, as for an instant, the same day-spring as that which is now risen into fuller light. And we find that the new principle of modern life is the same as that which was then—that men released from authority fell under the true inspiration of nature, and therein found an abiding and inexhaustible revelation. As men more and more deeply studied the life around them, they found themselves led into new realms of experience, and to conceptions far wider than they had dreamed of. At last the old and binding idea of force and matter, as dual, was seen to be factitious, and most mischievous in this, that it divided the faculty of thought into two worlds—into the several worlds of philosophy and of natural history. The former was to be regarded as the higher and chosen sphere of noble contemplation, though, uncoupled with nature, it brought forth nothing; and the latter had the sterility of neglect. We now see once more that this dualism is a phantom, and that force and matter are but one subject under two names. Natural processes are no longer to be regarded as the work of inert atoms, whipped by tangential agents; Nature herself is no longer to be studied as a mere framework, pumped by a vital principle, which is itself the nobler object of pursuit, but which submits not to a like study, eluding inquiry

or subject to a special and alien kind of illumination. Were science but a closer examination of a dead framework of things, and were minuter investigations but a curious counting of the lesser pins of it, then, indeed, *microscopische Spielereien* might be left to the play of the ingenious, and science herself be regarded as but a department of human life. But when we have learned that matter and force are one, that atoms are force-dust, and that we are in the presence of infinity in either sense, inwards or outwards, then we know that the soul may be kindled and the mind fed by depth of penetration as richly as by the loftiest aspirations. As Browning tells us in Paracelsus, "to know, rather consists in opening out a way whence the imprisoned splendour may escape, than in effecting entry for a light supposed to be without." The very terms materialism and idealism thus cease to signify an opposition, and fall meaningless to the ground, and the microscope is seen to be as true a source of inspiration as the "Paradise Lost." No longer, then, thrust back from scientific progress by the reverence of antiquity and the authority of those of high repute in philosophy, which have held generations of men as by an enchantment, we have now, in the last fifty years, seized upon the real stronghold of truth, and have added to the riches of the knowledge both of universe and mind, in a measure unexampled in the former history of man. We have won that freedom for our great workers and thinkers, which gives them power to speak and spread forth their doctrines openly. No longer are they compelled to veil their thoughts in the elaborate disguise which shackled and darkened the words of teachers even so modern and so great as Descartes.

Time forbids, were it otherwise needful, that I should do more than indicate to you the great ingatherings of the last half-century. Diseases have been separated and described anew; physiology and pathology—one science in two aspects—have revealed to us the seat and form of injury, inflammation, abnormal growth, and decay; the very nature of morbid processes has come to light side by side with the growth of our knowledge of the normal: chemistry has armed us with improved medicines, and experiment is testing their powers and affinities.

But now, gentlemen, what are the fruits of this new harvest? I stand second to none in my belief that all the revelations of pathology and clinics are vain, unless they help to better man's estate. We are wrung by the keen taunt of the "practical" man, who cries out, "Where is your science, where is your learning, when the sick man calls to you for help, and you stand the more impotent at his bedside the more heavily you are armed?" Is the ancient saw still true, that "Medicine is a meditation upon death"? It may be true, indeed, that much of our modern insight teaches us only that we can do nothing. But, gentlemen, are we to please ourselves with the pretence of an unreal knowledge? Are we, on the one hand, to play with traditional therapeutics which we have found to be hollow and out of relation with the facts of physiology, or, on the other, to elaborate a fanciful scheme of novelties, and, unmindful of the natural history of disease, to toy with new alkaloids, and to fret the vitals of the sick by telling pilules and drops as one tells beads, by the long day? Shall we assume a power which we have not, and wear the mask of the priest or the charlatan? Let us rather tear it away boldly, abiding by the broad truth that, whatever be the fate of to-day, ultimately *scientia et potentia humana in idem coincidunt*. We foresee doctrines which shall no longer fluctuate and vary with schools and disciples, but which, growing from the very womb of Nature, and nourished by her, shall flourish as life itself. In one of those sentences which are so happy by virtue of their profundity, Bacon tells us, "Luciferæ experimenta non fructifera quærenda sunt." Know first what life and disease are, and you will learn why they are, and how things shall be otherwise. Let me illustrate this from the third subject for discussion in this Section. Doubtless our recent discoveries in the pathology of Bright's disease, of emphysema, of hepatic and cardiac degenerations, and the like, have at first beaten down our crests, and forbidden us to rely upon the old infallible cures for dropsy; and we naturally fell, in our despair, to the belief that therapeutics are vain and disease incurable. Thence there arose, indeed, in many of our most learned medical naturalists, a noble scorn of shallow doctorings and druggists' formulæ, and too sweeping a condemnation of all medicine. But do we not now see whence the light is coming? Are not many of our young physicians tracking, like sleuth-hounds, the causes of these effects, and surely learning why a kidney shrivels, and why a heart or lung decays? Our children, then, having forgotten that diseases were ever regarded as separate entities to be ejected from the body, and learning to discover and to deflect morbid currents at their springs, will not await the appearance of these irreparable mischiefs, but will prevent their beginnings, and esteem him disgraceful as a physician who allows such states to become prematurely established.

It is herein, gentlemen, that our new arms against disease will find their potency; and to this end we must have a truer conception than we mostly have of the genesis of disease. No mere *enumeratio simplex* of symptoms or of pathological detail will suffice for this, nor even a full description of species. We have to work out the genetic affinities of diseases themselves—their origins, parent stems, and alliances, as well as their issues. We must seek out and define the laws or powers inherent in matter, by which diseases appear, develope, vary, vanish, or prevail: and this not in the limited field of man alone, but far beyond it. The medical Darwin has yet to arise who will map out the evolution of disease, reducing the complex to the simple, and unfolding the modes of its development. We can have no complete therapeutics until the science of comparative nosology is in great measure constructed—a science as yet scarcely begun—nay, not yet adequately recognised.

In this field, so far as man is concerned, must lie much of the work of the Collective Investigation Committee, and, I venture to think, its chief part and most important work. Let me, for instance, call to your mind the now well-known genetic affinities of asthma, gastralgia, and eczema, and, as a parallel phenomenon, the power of arsenic in all these affections. This family is again subordinate to the greater order of primary neurotic diseases, which are found in persons marked, not only by common abnormal, but also by common normal or subnormal characters—characters of aspect, fashion, manner, and disposition. Take, again, the long series of affections which belong to the equivalent order of lithiasis, with its families and genera. Patients show a true instinct in clinging to the doctor who "knows their constitutions"—that is, who has witnessed their history and the conditions of their lives, and who, in default of a scientific knowledge of their evolution, nevertheless has watched their own family and personal growths, outgrowths, and weaknesses, and the external circumstances under which these have had their being. We note, indeed, how, in spite of the infinite multiplication of marriages, certain broad types of constitution still subsist; and in time we may learn to reduce the infinite variety of maladies to a few chief constitutions, and these in their turn may be allied to each other, as the gouty is to the neurotic, and so forth. Now, can it be doubted that these several constitutions have their own issues in grosser pathology, and that thus the drift of families, and even of individuals, to specific organic disease may be learned, predicted, and deflected? I have said that the day is perhaps not far off when premature organic disease will be looked upon as the outcome of a long series of foregoing deviations from the normal, and as the consequence of previous blindness or blundering. The great future of therapeutics, then, gentlemen, lies, not in diseases and formulæ, nor in the discovery of great remedies for great maladies, but in the counteraction of earlier and simpler morbid phenomena; remembering that the magnitude of issues has no relation to the magnitude of things. Professor Geikie tells us that the modern geologist has to see that even Europe and Asia were not created, but *grew*; and when the whole phenomena of life, animal and vegetal, are comprehended as one, and this one is understood to have grown from the simplest beginnings, its diseases being but the reverse of this growth, then certain broad and simple laws of deterioration will be discovered, and from these the more complex as we rise in the scale of physiological complexity. With the attainment of the higher forms of life the most complex diatheses will be co-ordinate, and present more and more heterogeneous phenomena, until, with the full diversity of human life, we shall understand the correlative display of its manifold modes of undoing. Yet farther: our comparison cannot be bounded by the study of our own nearer brethren—of the men of our time and country.

Clinical phenomena are not as the chemical or physical, which can be reproduced at will, and are calculable for any latitude. We have to learn how diseases vary with the conditions of place and time, of season and soil, and even of race and temperament. For it may turn out that the races which enter even into the composition of our own nation bring each their own tincture of decay. I remember that, when I left Sir William Jenner's class in Great Ormond-street to practise in Leeds, I was struck by the singular fitness of his description of the "tubercular" subject to the slightly built, oval-faced, dark-eyed, prehistoric race which has survived so many subsequent incursions and defeats, and still makes so large a part of the population of a district, such as West Yorkshire, which lies under the hills of Strathclyde.

Till these studies are more complete—and as yet they are scarcely begun—we cannot hope for a system of medicine, but must content ourselves with a mere *corpus prescriptionum*; and the skill of the physician must still lie rather in a "kind of felicity" than in a measured and orderly power. Towards this higher phase of our own art let us strive. Our knowledge of the physical conditions of life is increasing daily, and not only so, but within the life of this Association marvellous discoveries have been made in one vast field of inquiry by the labours of Pasteur and Lister, and their brilliant disciples. I refer to the inquiry into those vital influences which disturb the body from without. Until we can eliminate the chief morbid factors which affect us from without we cannot understand our failures from within. In his treatise on "Airs, Water, and Places," Hippocrates laid the foundations of the study of the external factors of life: it has been left to our own day and to the great teachers I have named to advance this research from the study of the inorganic factors to that of the organic.

Again, the natural history of acute disease has been mapped out with a degree of completeness which enables us in the continued fevers, in acute pneumonia, in local inflammations, in pulmonary and encephalic hæmorrhages, in chorea, delirium tremens, mental diseases, and so on, to approach somewhat nearer to positive prediction, or at any rate to make some distinction between the course of nature and the effects of our own interference.

Another great and curious department of knowledge has been opened out to us during the life of this Association—one which affords yet a much wider scope for discovery and application. I refer to the embryological interpretations of the phenomena of disease; these being traced either in arrested development, as in many defects and deformities of body and mind, or in retrogressions, such as leucocythæmia. The comparison of embryonic periods in the same and in different animals may be a master-key even to the diatheses themselves, as may be suggested, for instance, in the chief functional disorder of lithiasis, wherein the formation of urates in place of urea is the resumption of a state normal to inferior types. The strumous diathesis again is, it would seem, a permanent arrest of development at a stage short of the highest, and may indeed be, and commonly is, artificially attained by exposure to conditions such as deprivation of light, etc., acting in arrest of the completion of growth, as we know that they do in case of lower forms of life. The later work of our histologists is full of suggestions of this kind drawn from the study of heterogeneous growths. Finally, I may refer briefly to a very different method of research—to the numerical—which, although by no means a new principle, may be called nevertheless a product of our own half-century, as beforetimes the means of collecting statistics on scales large enough to eliminate minor variations did not exist.

Many great lines of thought and observation are thus convergent upon the study of medicine, and are enlarging the foundations of the science upon which alone the successful art can be reared. What we have then to-day to proclaim is that during the last half-century we have ceased to build castles in the air, have turned more frankly and loyally to nature, and have sought our inspiration and found our reward in the study of phenomena which our forefathers despised as gross and material.

Those outer and commoner things which they regarded as finite and mortal, and at most but baser instruments to support conceptions issuing from the mind of the philosopher himself—these we find infinite and immortal—not governed by spirit, but themselves inspired—themselves the ministers of perfect law—themselves potent with all life and all thought—themselves not the counters, but the very words of the Creator. To take once more the phrase of the father of modern thought, "Itaque hominum intellectui non plumæ addendæ sunt, sed plumbum potius et pondera." We have learned no more to soar aleft into emptiness, but, Antæus-like, to seek fresh life in the renewed embrace of our mother earth. This is not only a new leaven in our thought, it is a reformation of it; it is no more a commerce of mind and things, but an identity.

As did Anatomy two hundred years ago, so in our time has Medicine conquered her independence; for this other men have laboured, and we are entering into their labours. And although our ways be still dark and slippery, I trust that those who shall be gathered together in our hundredth *Comitia Tributa* may rejoice in a yet more glorious light, and may think gratefully of us of to-day, for, in the words of a modern poet:—

"The first still follows one that goes before;
The last still hears a tolling foot behind."

ORIGINAL COMMUNICATIONS.

UNUSUAL PHENOMENA IN LOCOMOTOR ATAXY.

By JAMES RUSSELL, M.D., F.R.C.P.

In the former of the two following cases the supposition that gastric crises preceded the earliest ordinary symptom of tabes, is an assumption based upon the description of the attacks. Some doubt attaches to the assumption; but I think there is sufficient probability in the matter to justify a report of the case. With regard to the second case, I have not met with any example of these morbid changes in bone apt to occur in the disease in question having affected the phalanges of the toes, though my colleague, Mr. Chavasse, tells me that such an occurrence has been reported. An interesting feature in this case is the exact symmetry observed in the affection of the two toes on each side—a symmetry which is strictly in accord with the presumed origin of the mischief in the central nervous system.

Case 1.—Probable Gastric Crises preceding the Ordinary Tabetic Symptoms for Two Years.

A gentleman, aged forty, consulted me in May, 1881, with the statement that he had suffered from attacks of gall-stones during the preceding three years. He was recovering from the last of these paroxysms, which had commenced five weeks before; and with this attack he had also suffered from a straining in the rectum and a sense of desire to have his bowels open, without effect. I found no evidence of the presence of gall-stones, but nevertheless I did not question the accuracy of his statement, there being no symptom so far—at least, as I then observed—to call my attention in any other direction. Last March, however, he called again, and then presented symptoms which could hardly be referred to any other cause than to an early stage of tabes. There was unsteadiness in walking, with tendency to drag the toes, but no distinct incoordination; inability to stand with his eyes shaded (he at once called to me, "If you do that I shall fall"); complete absence of patellar and plantar reflex, and of cremaster reflex on the left side, with presence of it on the right; a sense of numbness in the lower extremities; extreme contraction of the pupils, with refusal to dilate in the dark (it was questionable whether any change occurred by accommodation), but he read No. 2 "pearl." He hardly knew when he wanted to pass urine, nor when to stop. There was also loss of sexual appetite. It then appeared that twelve months back he had suffered from acute darting pains in the lower extremities (situation not stated), lasting for a few minutes, but with such severity that he thought they could not have been endured had they lasted longer.

The symptoms of tabes seem to have been of twelve months' duration, and to have commenced with the pains just described. He had not been conscious of any trouble in walking for longer than three months; it followed the occurrence of spasmodic retraction of the toes, the "spasms" extending up the legs.

The presence of these symptoms led me to question the accuracy of the diagnosis formerly conveyed to me, and I then found one piece of evidence which militated strongly against the gall-stone hypothesis; it was that, although the

attacks had been protracted and severe, the first one lasting for a week, and the later ones nearly as long, not one of them was followed by any evidence of obstructed bile-duct. The pain, too, commenced at the pit of the stomach, whence it passed downwards, extending across the umbilical region into the hypogastrium; it was attended with severe retching and vomiting. With the paroxysms occurred much forcing in the rectum and ineffectual efforts to empty the bowels. Since the first reputed attack of gall-stones he has been liable to abdominal pain of an indefinite description across the umbilical region, unattended with retching; he referred the pain to wind, and took assafœtida for it. The pain has ceased since the cramp attacked his toes.

Case 2.—Necrosis of the Phalanges of each Great-Toe, apparently setting in Twelve Months after the First Symptoms of Locomotor Ataxy—At a Later Period, Periostitis of the Terminal Phalanx of each Second Toe.

A blacksmith, aged thirty-six, gave the history of exposure to frequent changes from heat to cold in the course of his business, having been often compelled to pass from the extreme heat of the forge into the cold. The subject of syphilis has been omitted from my notes, but I feel sure that I am accurate in stating that he had suffered from some venereal affection, but not from any important secondary symptom. There was nothing remarkable in his family history.

The earliest symptoms of his complaint date from about five years—his legs felt lazy and numbed in running; in about twelve months afterwards his gait was affected in walking. Twelve months after the earliest symptoms he became subject to sharp pains in his thighs, occurring in paroxysms; a year later he was compelled to give up striking, by reason of numbness in his arms; and during the last year the use of the hands has been crippled. At the time when the lightning pains first showed themselves—that is, four years ago—the left great-toe ulcerated, the sore remaining open for eighteen months, discharging considerably. During this period pieces of bone came from the sore, which ultimately healed completely. About two or three months after the ulceration of the left toe, the corresponding toe on the opposite side became similarly affected; and five or six months before the date of his admission into the hospital, a piece of bone, the size of a horse-bean, passed from this toe likewise. He never suffered any pain during the process of ulceration, unless he chanced to wear his boot for too long a time.

When admitted the left great-toe presented traces of necrosis having taken place in both phalanges, with old ulceration on the under surface; the right great-toe had undergone necrosis of the terminal phalanx, and ulceration remained on the under surface. The terminal phalanx with its soft coverings of each second toe was also inflamed and swollen. All the other bones of the body were quite healthy.

The patient presented the usual symptoms of tabes: decided incoordination in walking, loss of control over delicate movements of the his hands, even extending to difficulty in feeding himself; imperfect power of recognising the position of his lower extremities; and absence of patellar reflex. Micturition was difficult at times. He discriminated weights fairly in his legs; perfectly in his upper extremities. The tips of the second, third, and fourth fingers had almost lost tactile sensibility in the right hand; weakened to a much less degree in the left. Sensibility was obscure in the palms, and dull in the first finger and thumb (with the tips of the compasses half an inch in the first finger, three-quarters in the thumb). In the soles of the feet the compass-points were discriminated to one inch.

The patient's pupils were extremely contracted; they acted slightly but decidedly during accommodation, but not by variation of light. The discs were healthy.

Very little improvement was effected by treatment.

A Large Double Scrotal Hernia.—Dr. Blackwood exhibited a remarkable example of this to the Philadelphia Medical Society. He says (*Phil. Med. Times*, May 20):—"The patient has suffered from this enormous hernia for forty years, during twenty of which it has maintained its present size. Its dimensions are, to-night, from the pubis to the anus, thirty-four inches; laterally, twenty-nine inches; and at times, from inattention to diet, it assumes still larger proportions. He is eighty years old, yet does really hard work, and within ten years or so has frequently carried a bag of wool from 100 lbs. to 200 lbs. weight."

NOTE ON THE PRESENCE OF INDICAN IN THE URINE.

By ROBERT SAUNDBY, M.D. Edin., M.R.C.P. Lond.,
Assistant-Physician to the General Hospital, Birmingham.

In the *Medical Times and Gazette* for May 1, 1880, and again on February 4 of the present year, I gave some details respecting the very remarkable cases of a brother and sister, W. H. E. and B. E. The brother has an enormous spleen, and, on the first occasion I saw him, was suffering from a definite attack of paroxysmal hæmoglobinnria. His urine was examined by Dr. MacMunn, who said the dark colour was due to a mixture of methæmoglobin and urobilin. I was informed that his urine, though not so dark, was always darker than normal, and I assumed that the dark colour was due to the presence of methæmoglobin.

The sister has not had, so far as I have been able to ascertain, a definite attack of paroxysmal hæmoglobinnria, but I have attended her in a slight febrile attack, in which her spleen became a little enlarged, and her urine was darker than normal, but very much to my surprise, on examining some of her urine, which is also persistently dark, some little time after her recovery from this attack, I could find no albumen, and the spectroscope showed no trace of hæmoglobin. I sent a specimen of it to Dr. MacMunn, who confirmed this, but stated that it contained three colouring matters—urobilin, urerythrin, and indigo-red.

As I had had that urine some days in my consulting-room, I made arrangements for Dr. MacMunn to receive fresh samples of the urine of each case, as I began to suspect that the persistent dark pigment was not methæmoglobin, as I had supposed. He reported that the urine of W. H. E. was clear dark brown, like strong tea, and deposited thick red urates; specific gravity 1024; acid; giving a cloud on boiling, which cleared only partially on adding acetic acid. He found that its colour was due to indigo-red, indican (which could be split up into indigo-blue), urobilin, urerythrin, and a trace of a pigment resembling cruentin. The urine of B. E. was brownish-yellow, depositing a mucous cloud; acid; specific gravity 1012; contained no albumen; the colour being due to urobilin and indican.

Neither urine contained any blood pigment or bile pigment. These two cases are paradoxical in so many ways that this discovery only adds one more difficulty. Indican in the urine is usually seen in connexion with some affection of the intestine, especially incarcerated hernia. It is held to be derived from indol, a product of putrefaction in the intestine, and it is easy to see how a hernia may mechanically favour its production on this hypothesis. But in these cases there is certainly no habitual constipation; moreover it cannot be doubted that constipation *per se* is unable to give rise to this phenomenon. The important fact with respect to these cases is, that the persistent dark colour of the urine, which I regarded as indicating a constant loss of hæmoglobin, is now shown to be due to the presence of these derivatives of indol.

Gonorrhœal Arthritis or Tenosity.—Prof. Peter pointed out a case at his clinic (*Gaz. des Hop.*, June 17) in illustration of the fact that in the so-called gonorrhœal rheumatism the joint is not the seat of the affection, but the adjoining white tissues or "tenosity"; and that consequently there is no complication from heart-disease, while the prognosis is much more favourable. The gonorrhœal discharge exerts no specific effect in producing it, any genital irritation being competent to this, acting through some ill-understood mechanism, as in profuse leucorrhœal discharge, or the sudden arrest of the menses. In this case abundant gonorrhœal discharge was present in a woman, and the left ankle-joint seemed to be the seat of an attack of acute rheumatism. This, however, was not the case, and the diagnosis was obtained by the mode of examining the joint. Feeling below the internal malleolus, great pain was produced; but palpation at the external part, or in front, or deeply behind under the tendo Achillis, gave rise to no abnormal sensibility. Returning again to the inner side, and examining methodically, it was found that pain really only existed in the direction of the sheath of the tendons which passed under the malleolus internus—there being therefore only a tenosity, easy to define. It is only very rarely indeed that the joint is implicated.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ROYAL FREE HOSPITAL.

CASE OF CIRRHOSIS OF THE LIVER—SUDDEN DEATH FROM EMBOLISM OF RIGHT PULMONARY ARTERY.

(Under the care of Dr. COCKLE.)

[Reported by Mr. NORVILL.]

MARY P., aged sixty-three, was admitted on May 26, 1882, for cirrhotic enlargement of the liver. The patient also suffered from chronic bronchitis and emphysema. There was marked œdema of both legs and puffiness under the lower eyelids. Heart hypertrophied, but no murmur was audible. Urine contained no albumen or sugar. Patient improved after admission, but was never very weak. On the morning of June 23 the patient got out of bed and washed herself. She returned to bed as usual, and was seized almost immediately (at 8 a.m.) with urgent dyspnœa, became rapidly cyanotic, and died in fifteen minutes.

Autopsy, fifty-two hours after Death.—Peritoneum and pleuræ contained some blood-stained fluid. Both lungs were collapsed and emphysematous; weight twenty-nine ounces. In the main trunk of the right pulmonary artery was a decolourised clot an inch long; recent clot extended from it into the smaller branches. The clot in the main trunk of the artery was of older date than the rest, and not adherent to the wall; it was laminated, and softened in the centre. Heart hypertrophied; all the cavities were dilated, and filled with recent clot; weight twelve ounces. The valves were normal. Liver was cirrhotic, and had cicatrices and one or two calcareous nodules on the surface; weight fifty-nine ounces. The capsules of the kidneys were adherent; the surface of each organ was granular; weight of both kidneys nine ounces. Spleen normal. The embolus had evidently passed from the right ventricle.

EAST LONDON HOSPITAL FOR CHILDREN.

CASES UNDER THE CARE OF MR. PARKER.

[From notes by Mr. SCOTT BATTAMS, Resident Medical Officer.]

Prolapsus Ani—Opium Treatment.

M. H., aged two years and eight months, was brought for treatment on November 4, 1881. The mother stated that the bowel had been "down" continuously for three months, save during short intervals of a few minutes, when attempts to reduce it were made. The buttocks had been tightly strapped—plugs and pads of lint had been used,—but without avail. When the bowel first began to prolapse there was nothing very obvious to account for it; the bowels had acted with moderate regularity. At the present time there is great forcing down, with frequent desire to defæcate; the motions are small, hard, and round like marbles.

The prolapse includes the whole thickness of the lower bowel—it is not merely the mucous membrane; after reduction, which is effected with some difficulty, the sphincter is found flaccid and without any tone. The child is well-nourished and well-grown for her age—she runs about without any great inconvenience.

After hearing how unsuccessful mechanical means had been, it was determined to try the effects of opium. Two minims in water three times a day were ordered as a beginning. An astringent lotion was also ordered locally. Ten days later, the bowel returned spontaneously; it came down, however, after unusual exertion, but would return again when the child lay down.

December 6.—The bowel remained "up." The opium was suspended.

January 17, 1882.—The child was seen again. She had taken half a fluid ounce of the tincture. The mother stated that prolapse occurred occasionally; but it was not considered necessary to renew the treatment.

July.—She is again under care, with a similar but less extensive condition. After a fortnight's rest in bed without treatment the condition remained unrelieved. Opium was again ordered, and its effects became noticeable after one or two doses.

Remarks.—Prolapse of the bowel is a not uncommon ailment among children. It is generally associated with some chronic irritation of the digestive tract, and is a *symptom* rather than a *disease*. In the present instance no special cause was ever discovered, either local or general. It must be remarked also that it was not only the mucous membrane, but the whole thickness of the bowel, which had prolapsed. The girl was carefully examined for stone in the bladder when she first presented herself, but neither stone nor other source of irritation was found. In adopting this plan of treatment, attention must be paid to the first few doses of the drug; any soporific effect or peculiar idiosyncrasy should be carefully noted.

Galactocele—Puncture—Cure.

E. B., aged nineteen years, came under observation for a large swelling of the left breast. The patient was a married woman, suckling a child six months old. There was a good supply of milk in the affected breast. The breast was two or three times as large as its fellow; not painful; gave a sense of fluctuation, and was very tense. It commenced to enlarge three or four months previous to her admission, without any known cause. It first felt "like a knob" in the breast, and enlarged slowly. The skin over the breast was normal, except that the cutaneous veins were dilated.

The breast was punctured with a tenotomy-knife, and thirty-five ounces of fluid were discharged. It partially refilled during the next few days, but there was neither pain nor fever. After another evacuation the swelling subsided.

The fluid was of the consistence and colour of thin cream, which it much resembled; it was quite sweet, had an alkaline reaction, and contained abundance of sugar and caseine.

Remarks.—Galactoceles are somewhat uncommon. This case answered the description usually given in the text-books. There was no pain and no knowledge of any injury, and the woman was suckling. The only other case without suppuration which has come under my own observation occurred in a married woman. The milk was in that case secreted by a mammary glandular tumour. It was removed, and when cut into was found to contain a quantity of inspissated milk. The cyst-wall microscopically consisted of glandular structures. I am inclined to think that some mammary abscesses are due to suppuration in occluded and distended ducts. They present themselves, therefore, as inflammatory conditions rather than as the chronic, painless tumour above described. This may account in some measure for the rarity in practice of tumours containing only milk—galactoceles proper.

Dyspnœa—Retro-pharyngeal Abscess, pointing at the Angle of the Jaw—Incision—Relief.

H. B., aged fifteen months, was brought on April 18, on account of his noisy respiration and some dyspnœa. There was a swelling as large as a hen's egg below and behind the angle of the lower jaw on the right side. The child was a pale, weakly little thing; he held his head in a peculiar, stiff manner, and looked worn out with the effort of breathing. He had been losing flesh for the past two months, and had been under medical treatment. His parents had recently moved from the North of England into London: they were healthy; no history of phthisis or syphilis. The tumour was deeply seated, rounded, and semi-fluctuating. It was at first thought to be suppuration in enlarged glands, which in some way pressed on the pharynx and interfered with respiration. The skin over the swelling was normal. As fluctuation was felt, an exploratory puncture with a tenotomy-knife was made; but it was necessary to go deep before pus was reached. From the direction which the director took towards the spine, and from the quantity of pus which welled up, the idea of a retro-pharyngeal abscess occurred. The breathing became easier immediately. The pharynx was now examined with the finger, and a soft, cushion-like swelling on its posterior at once became apparent. On making pressure over this, pus oozed freely from the wound. A drainage-tube was kept in the wound for about a fortnight, during which time a free discharge took place. The quantity of pus lessened gradually, and then ceased; meanwhile the child's dyspnœa and hoarseness disappeared, and its general health improved. The temperature gradually came down from 103° to normal.

May 16.—Discharged.

Remarks.—The exact nature of this case was not diagnosed just at first. The unusual position at which the abscess pointed, the absence of any obvious spine disease, or of any illness—exanthem, for instance, such as often precedes retro-pharyngeal abscess—may be urged in excuse. Also the swelling itself near the angle of the jaw. On the other hand, the gradual onset of the dyspnœa, and a pharyngeal quality in the voice, ought to have at once suggested a manual examination of the pharynx, when the real nature of the case would at once have become apparent.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, AUGUST 19, 1882.

RECENT CHANGES IN THE REGULATIONS OF THE ROYAL COLLEGE OF SURGEONS.—II.

We last week commented upon the resolution come to by the Royal College of Surgeons of England, and now awaiting reconsideration, that, in future, attendance on one course only of anatomical lectures should be required from candidates for the College diplomas. We purpose now to consider the other important change upon which the College has resolved: we refer to the Examination in Elementary Anatomy and Physiology to be held by the teachers at the different medical schools, and which students will have to pass before they will be allowed to present themselves for the Primary Examination. The history of this proposal is a chequered one. Before resolving upon carrying it into effect, the College invited the teachers of anatomy and physiology at the medical schools to meet and express an opinion upon it. Such a meeting was held, and the opinion expressed was strongly in favour of such an examination. The College therefore proceeded to act upon views thus endorsed by those who might be supposed best able to judge upon the matter. Their action, however, has been looked upon with anything but favour by some of the junior teachers of anatomy, who, holding subordinate appointments only, had not been summoned to the before-mentioned meeting; and the objections urged seem to us to deserve consideration.

Against the examination itself there seems to be little or nothing to be said. Everyone knows that during the average student's first year, when the Primary is as yet too distant to weigh heavily on his spirits, and when he finds himself enjoying a freedom from restraint which probably he has never known before, he is apt, unless of unusual strength of purpose, to be idle—perhaps to spend his superfluous energy in pleasures which are not recreations. Upon such, the knowledge that an examination must be passed at the end of the session may fairly be expected to exert a very wholesome influence. But the manner in which this examination is to be conducted involves a new departure. The teachers in the several schools are to examine their own pupils; and, without a certificate that such an examination has been passed, the College will not admit a candidate to the Primary. We doubt whether a clever lawyer might not be able to make out a plausible case against the legality of this step. It might be argued that although the College has power to examine candidates, yet it is acting *ultra vires* when it takes upon itself to make them be examined by some other body. As, however, it is exceedingly unlikely that any such point as this will ever be raised, we will pass from it to more practical considerations. First, will there be uniformity in the new test? The examiners in each school will be different. The teachers of each school will have to decide for themselves the scope, method, and standard of the examination; and it may very likely be the case that there will be differences in these respects between the different schools. To what extent these differences will go—whether they will be only trivial, or whether they will be wide enough to seriously affect the education of students—time only can show. We are quite sure that the College may trust that the integrity and discrimination of the teachers will not allow any personal peculiarities of opinion to warp them from making the examination they are asked to conduct as genuine a realisation of the College intention as they can. One possible result of the new function of the teachers may account for much of the dislike felt towards it. It is this: that teachers who are severe examiners may become therefore unpopular; and that schools in which this first examination is stringent may also become dreaded, and the students flock to some more indulgent *Alma Mater;* and thus a downward competition among the hospitals become inaugurated. We are inclined to think this fear much exaggerated. Grant that some schools might try to cater for popularity by fixing a low standard for their first-year students: such encouragement to idlers would only result in an increased proportion of plucks at the Primary, and consequent public announcement of the inefficiency of the teaching. Besides, the student does not in every case select his medical school for himself—it is, perhaps, in most instances chosen for him by those who have the care of his education; and laxity of discipline is not likely to recommend a school to parents and guardians. If it be possible that there are lecturers who would be deterred by the fear of personal unpopularity from maintaining a proper standard in the examination held by them, we can only say that we are sorry for any school which has such a teacher on its staff. Popularity gained by neglect of duty can at best only be evanescent, and will be from the first mixed with, and afterwards superseded by, contempt. A claim very fairly made is, that if the lecturers are to hold an examination for the College, they ought to be paid for the additional work thus thrown upon them: to which it may be replied that the work is in most cases not additional, because in the best schools class examinations are held at the end of the session, and the examination now required by the College will replace these; and also that the College has not funds to do it, except by increasing the fee for the membership. We suppose that it would be quite within the power of the managers of each medical school to charge a fee

for the new examination, and add it to the emoluments of the lecturers who examine. Everyone will admit that examiners deserve payment, but no one sees where, in this case, the money is to come from, unless the teachers themselves demand it from the candidates.

The principle of making the teachers examine their own pupils is, as we have said, an entirely new one in England, where we have been accustomed to think our plan of examinations, conducted by entirely independent persons, a very much better one. But in truth there are advantages attending the former one, so important that they ought not to be lost sight of. The teacher must have a knowledge of his pupil far more thorough than the most skilful examiner can get in the few minutes' interview allowed him, and he therefore can, beyond doubt, judge far better of the student's acquirements and capabilities. The great objection to entrusting to the teachers the examination for diplomas is the extreme difficulty, if not impossibility, of securing uniformity of standard. Unchecked by some independent body, downward competition is too apt to follow. In the case of the examination now proposed, such a check exists in the subsequent Primary and Pass Examinations, and we think these may be trusted to prevent undue leniency. Indeed, if ever we get, as is proposed, one Examining Board for the whole of England, it is difficult to see how personation is to be prevented, except by in some way calling in the co-operation of the teachers.

We do not anticipate any revolutionary results from the new measure. The effect of it will be to strengthen the hands of those lecturers who already hold class examinations. Formerly it has been to some extent optional for the student to attend these. If he worked well during his second winter, so that at the end thereof he could go up to the Primary with a good chance of passing, the lecturer could hardly refuse his signature because an examination twelve months previously had been missed. This new regulation will compel students to attend, and this compulsion will make some students work who but for it would have idled away their first year. It would have been better had the College itself undertaken to conduct, or at least to supervise, the examination. We will not enter upon their reasons for putting the task on others, for they probably involve practical considerations as to matters of detail, only of interest to the officials of the College. We have no doubt that the Council have taken the course which seemed to them best; and we hope and believe that all who are concerned in carrying out the change now made will heartily endeavour to make it a beneficial one, even though they may think the way in which the College has set about it a wrong one.

THE ADDRESS IN SURGERY AT WORCESTER.

Professor Stokes has long been known as an able and practical surgeon; he will now be further known as an orator of considerable power. Those who had the pleasure of listening to his Address at Worcester, last week, will long remember both the occasion and the Address. He began, as was almost unavoidable on the occasion, by congratulating the Association on the fulfilled expectations of its distinguished founder, Sir Charles Hastings: "as it had its birth in the 'faithful city,' so had it proved faithful in many good and noble ways—faithful in removing professional jealousies and softening asperities—faithful in protecting with its broad and strong shield those among us who may have been cruelly and unjustly attacked—faithful in its efforts to raise the social status of our profession—faithful in its attempts to extricate public opinion from the quagmires of sentimentalism and folly—faithful in aiding and encouraging the scientific vanguard of our profession." The orator, however, next pointed out that there was yet very much to accomplish; especially he alluded to the want of a more extended preliminary education, and to the desirability of a hearty co-operation of the various corporations in promoting a higher standard of education, and a conjoint examination in Arts, without which—except for holders of a university degree—no one, he holds, should be permitted to commence the study of Medicine. In a recent visitation of examinations conducted for the General Medical Council, the visitors frequently observed candidates whose scientific culture was far below what ought to be the normal level. "The portals of many of the universities," Professor Stokes said, "have recently been widened, enabling those to avail themselves of the advantages, social as well as intellectual, which a university affords, who a few years ago would have been wholly precluded from so doing. . . . Such training would assuredly give a healthy impulse and scientific direction to the practical work of a student when he should leave the university to complete his professional studies at a metropolitan school." No more convincing proof of the value of university teaching and of general culture could possibly have been given than the Professor's own discourse, while their power to influence was shown by the impression which he produced on his listeners. Another point in this part of the Professor's oration is noticeable; and that is his opinion of the unsuitableness of the smaller provincial towns for complete schools of medicine and surgery. "Having for several years been a surgical examiner in the Queen's University in Ireland, I was forcibly impressed with the truth of the view that, for the practical teaching of surgery and pathology, universities in the smaller provincial centres are hardly able to afford adequate material for the student to acquire an adequate knowledge of these subjects." These are weighty words, and their truth and significance will be generally recognised.

We must now pass to the more truly surgical parts of his oration, where much will be found to instruct and to commend. Professor Stokes had decided to devote himself to those parts of surgical practice in which he was personally interested. But he could not forbear to enumerate many of the other gains and advances which had been made in surgery, though he was obliged to content himself with a bare enumeration. Thus, he congratulated us on the abandonment "of an indiscriminate blood-letting"; of a reckless use of mercury—which, he might have added, had been brought about through the labours and teachings of a compatriot, Abraham Colles,—and of setons and moxæ as counter-irritants. It is perhaps not a little remarkable that Mr. Prichard, in his Sectional Address on Surgery, took the opposite view in regard to counter-irritation. The value of drainage was referred to, and of metallic sutures; the advances made in lithotrity, especially by Bigelow, were mentioned; as also the *renaissance* of excisional surgery. Nor were the introduction and establishment of ovariotomy, nor the advances made generally in what we now call abdominal surgery, forgotten. A word too was said in recognition of the complete revolution in ophthalmic and aural surgery which has occurred, and of the flood of light which the ophthalmoscope of Helmholtz has shed, not alone on ophthalmology, but on pathology in its widest sense. "Memorable," however, said Professor Stokes, "as these advances would make any era in the history of surgery, they all pale before three I have yet to mention—advances which the surgical historian will doubtless point to and emphasise as the three giant strides that the past half-century has witnessed." The first of these "giant strides" is the introduction into surgical practice of the means of banishing pain during operations; the second is the restoration of diseased or injured bones and joints necessitating resection; and lastly,

the enunciation of the principle and the establishment of the practice by Pasteur and Lister of antisepticism in the treatment of wounds.

As regards anæsthetics, few will question the truth of the following enunciation: "Whatever anæsthetic the surgeon selects—whether it be chloroform, ether, or both combined, bichloride of methylene, or nitrous oxide gas—we must admit that, even with the most careful precautions as regards the condition of the patient generally, the anæsthetic selected, the amount of it used, and the mode of its administration, the gauntlet of peril has still to be run." Nor will many dispute that, "although the number of accidents connected with the use of anæsthetics is fortunately very limited, still, by more accurate knowledge of the facts, by entrusting the duty of administering anæsthetics solely to persons of experience and judgment, the number of these regrettable accidents would be still further largely diminished." In counting the benefits conferred by anæsthetics, Professor Stokes pointed out how both patient and surgeon were the gainers; the former by being relieved of all suffering during an operation, the latter by being enabled to act with a calm and deliberation which were not possible in former times.

Concerning the discovery of anæsthetics, allusion was made to the physicians of ancient Greece and Rome, who probably used certain plants—notably mandragora; also to Sir Humphrey Davy's discovery of the power of nitrous oxide gas to destroy physical pain; but justice was done to Morton, of the Massachusetts General Hospital, as having been the first to demonstrate the possibility of inducing anæsthesia by the inhalation of ether. We will refer our readers to the address itself for the author's view concerning the proper selection in individual cases, leaving this part of the oration with the statement that in a majority of cases Professor Stokes "would unhesitatingly prefer ether." Passing on to his second head—antiseptics—he showed how the treatment of wounds, in Professor Humphry's words, was not merely "the first stone, but the corner-stone of surgery"; and he pointed out how much antiseptics had done in advancing this part of our practice. We cordially agree with him in this opinion: even those who do not practise Listerism proper now bring to bear an amount of personal supervision and a care in every detail which were formerly undreamt of; while those who "go in for" strict antiseptic precautions undertake in the way of operations what surgeons formerly would never have thought of. Mr. Savory's views, as expressed in his Address in Surgery at the Cork meeting, were appealed to as admitting the germ-theory of putrefaction, while his method of dressing was pointed out as essentially antiseptic—for did he not use carbolised gut ligatures, drainage, and permanganate lotion, or "some other potent antiseptic"? As regarded certain theoretical views, Professor Stokes withheld any opinion, believing that, from a purely practical point of view, it is of little consequence whether we accept the views recently discussed by Burdon-Sanderson or those held by Ogston and Hueter—the former maintaining that the inflammatory exudates of a wound do not depend primarily on contact with atmospheric organisms, but their secondarily infective character does; while the latter insist that inflammatory exudations would never occur at all provided the organisms could be kept away from a wound-surface. "It is not my purpose," Mr. Stokes said, "to discuss which of these theories is likely to be correct; for, whichever view we adopt, the necessity for thorough antiseptic precautions remains the same." From the purely practical standpoint, the Professor may be right; but it may be said that sufficient precautions can only, then, be taken when the life-history of these micro-organisms is thoroughly known. It may be that some of the failures—which every surgeon meets with now and then, and which are attributed to some oversight in the mode of applying the dressings—will be able to be otherwise explained and guarded against with certainty, when the mode of entry and the mode of action of these minute but dangerous "mischief-makers" and "mischief-spreaders" has been more completely mastered.

It may perhaps be true that "the essentially weak point in the persistent and obstinate opposition to Listerism is the almost universal admission of the truth of the germ-theory of putrefaction"; but it cannot be said that the Listerian details of dressing wounds with a steam-spray, the silk protective, the drainage-tube, the necessity for enveloping large areas of the body in the yards of gauze, are as simple as might be wished: and we have seen, *over and over again*, important operations—breast amputations more especially—performed in free air, and dressed with spirit-lotion, heal absolutely without one drop of exudation. So long as such results can be brought forward, it must be admitted that the Listerian dressings are not a *sine qui non*, although the germ-theory of putrefaction remains untouched and unassailed. We are not arguing against Listerism, in saying this, so much as against Professor Stokes' positivism. The greatest advance in the treatment of wounds, in our opinion, is that a means of escape is furnished for exudation as it is formed. That exudation may form independently of germs, can be seen in almost every abscess treated with Listerian precautions; and this seems to us an answer to one of the theoretical questions just referred to.

Much more might be said concerning this part of the Address, but we must pass on to review the third of the three greatest "giant strides" which Professor Stokes advances, as characterising the past half-century, osteogenesis—all that which concerns the growth, reproduction, and regeneration of bone. That great, indeed giant strides, have been made, we readily admit; it is a great advance to remove a joint instead of removing a limb; it is a great advance to straighten a deformed limb; it is a great advance to remove the diaphysis of a long bone, and by leaving its periosteum, provide for the regeneration of the part we have removed. But, although excisional surgery is of great importance, and is yearly becoming more perfect, there is yet vast room for improvement. Take hip-disease and its treatment, for instance; does it not still remain an opprobrium of surgery? We venture to think that more advance has been made in several other of the departments to which Professor Stokes alluded in his opening remarks. But we are completely in accord with him in thinking osteogenesis, in his meaning of the word, one of the subjects which calls most loudly for study and for consideration. In the matter of joint-surgery his name is already well known, and we doubt not that in years to come he will adorn this department of surgery with still greater achievements.

THE WEEK.

TOPICS OF THE DAY.

A CASE was heard before the Court of Appeal last week—Selous *v.* the Wimbledon Local Board of Health—in which the plaintiffs appealed against a decision of Mr. Justice Chitty, declining to restrain the Wimbledon Board from depositing on land adjacent to that of the plaintiffs, and discharging into the river Wandle, sewage, sewage-water, or other noxious matter, so as to be or become a nuisance. The plaintiff's property is situated in the immediate neighbourhood of the sewage farm belonging to the Wimbledon Board, who have recently constructed a new sewer with an outfall into the Wandle. The evidence as to the existence

and extent of the nuisance was very conflicting. That on behalf of the plaintiff spoke of the serious injury to health of the inmates of Garett House from the stench, which was described as "absolutely intolerable"; whilst the defendants' witnesses, who had personally examined the locality, pronounced these statements to be grossly exaggerated. Mr. Justice Chitty, when the motion was before him, after observing that the defendants had almost made out a case for the refusal of the injunction, on the ground of delay, was of opinion that upon the evidence, and having regard to the balance of convenience and inconvenience, the case was not one for the interference of the Court by granting an interim injunction. The Master of the Rolls now said that, in the face of the great conflict of evidence between the parties, he proposed to adopt the course which he had taken in similar cases, of sending down some independent scientific gentleman to view the locality and report upon the matter, and if the report supported the plaintiff's case they would be at liberty to apply to the Vacation Judges for an injunction. We would suggest, in the cause of justice, that the scientific gentleman sent down by the Master of the Rolls should *live* for a time, day and night, in the accused locality—not merely *view* it.

An important addition has been made to the Standing Orders of the House of Commons respecting private Bills. It will now become the duty of every Select Committee to which any Bill promoted by a municipal corporation or other local authority is referred, to make a special report to the House respecting any clauses in such Bill which are at variance with the general law affecting matters of police and sanitation. Several efforts have recently been made in local Bills to set up regulations of a novel character, and these attempts have led to the decision that such changes, if they are to be allowed at all, must be effected by public, and not by private legislation. Another important feature of the new Standing Order is that Select Committees are forbidden to sanction the raising of money by loan for local purposes, where it is proposed to extend the period of repayment beyond the term of sixty years.

The *Athenæum* says that Professor Esmarch has recently published a lecture which he delivered some months ago before the Physiological Society of Kiel, on the treatment of President Garfield's wound. The wound, he maintains, was not mortal, and the injury to the vertebra could have been healed. The death of the patient, he continues, was mainly due to the loose way in which the antiseptic treatment was applied. A great mistake was made, the Professor asserts, in searching for the bullet. Had the American surgeons imitated von Langenbeck's example, who did not attempt to extract any of the pellets when the German Emperor was wounded, and had the antiseptic treatment been rigorously applied, the President might, Professor Esmarch maintains, be alive now.

A fatal case from the administration of chloroform was recently investigated by Mr. W. J. Payne at Guy's Hospital. The deceased, a man aged thirty-six, was employed by a firm of engineers in Southwark-bridge-road. Whilst cleaning the machine at which he worked, his left thumb got jammed between the cogs. A fellow-workman deposed that he stopped the machine, and took the deceased to Guy's Hospital. The House-Surgeon, who attended to the man, said the thumb must come off, and advised the administration of chloroform. Witness remained whilst it was administered, but saw no one examine deceased's heart to see if he could bear it. The man struggled very much at first, and then became as if dead. The House-Surgeon is reported to have deposed that the left thumb of the deceased was completely shattered by the machine, and the bone was broken in six places. He advised the administration of chloroform before the operation, and the deceased assented. He asked no question of the deceased as to his health, nor was the heart examined, but, judging from the pulse, he thought the deceased had no organic disease. While giving chloroform with the inhaler, on which he had put three separate doses of thirty drops of chloroform, the deceased showed symptoms which necessitated restorative measures being used. Upon the patient coming to, he, the witness, told the dresser, who was to operate, to proceed as rapidly as possible, as he could not administer chloroform again; but just as the operation was commenced the pulse failed, the heart ceased to beat, and the man was dead. The post-mortem examination showed that death was due to chloroform acting upon a fatty heart. Witness had had a great deal of experience in administering chloroform; and in reply to the coroner, he added that though laughing-gas was not dangerous, its effects did not last long enough to permit an operation like this, which would have taken a quarter of an hour. The death-rate from the administration of chloroform was, he said, about one per thousand. The jury returned a verdict of accidental death.

The *Journal Officiel* has recently published the final and authentic results of the census taken in France last December. It appears that the total population numbered at that time 37,672,000, against 36,905,000 in 1876. There has thus been an increase of 767,000 in the course of the five years intervening between the two censuses. Between 1872 and 1876 the increase amounted to 802,000; from 1861 to 1866 to 684,000; from 1856 to 1861 to 1,342,000; and from 1851 to 1856 to 256,900. The most striking fact demonstrated by the figures is the influx of population into the large towns. The forty-seven towns of upwards of 30,000 inhabitants show an increase of no fewer than 562,000 souls. These forty-seven towns comprise nearly one-sixth of the total population. The returns of all the other towns would, of course, be necessary before we could indulge in any speculations on these figures. Perhaps the immigrants come from smaller towns; or they may be mostly farm-labourers discontented with the wages they have been earning; or possibly many of them are peasants who have begun to find their properties insufficiently remunerative. The last suggestion, however, is not consonant with peasant character in France, and the increase is more probably due to the first two causes.

The press of this country have been asked to publish the following official announcement:—"The Colonial Government are making rapid progress with the organisation of the Technological, Industrial, and Sanitary Museum of New South Wales, which has now been permanently established in the Garden Palace at Sydney, the building in which the International Exhibition of 1879 was held. Arrangements are now being made for the shipment of contributions to the Museum from manufactories in this country, which for the most part consist of sanatory appliances, and articles connected with building." The committee in this country appointed to further the undertaking have issued a circular in which they say: "The Sydney Museum occupies a similar position, and fulfils the same purposes, in New South Wales, as the South Kensington Museum and the Parkes Museum of Hygiene do in this country. Large numbers of houses are being erected in the city of Sydney, and other cities and towns in the colony; moreover, the authorities are paying great attention to sanitary matters; and the principal object of the Government in establishing and maintaining the museum is to provide a means whereby the colonists may become acquainted with improved apparatus and sanitary

appliances for building and domestic purposes." Mr. Mark H. Judge is the acting member of the committee in this country.

The promoters of the scheme for providing a park for Paddington have once more put forward an urgent appeal to the public, and there is much common sense in their contentions. If, they say, something is not done soon, an opportunity, the like of which will never occur again, must be lost for all time, since the ground it is sought to acquire for the purpose, if not secured, will in a very short space of time be built upon, and more houses will crop up to further extend this already overgrown metropolis, to the utter exclusion of any open space for the benefit of the general public. Unfortunately it is exceedingly difficult to persuade authorities to look ahead. With some reason, they are content to legislate for the present time, leaving the future to take care of itself; yet, in this case, we are prepared to go beyond our usual province and point out the great mistake which will be made if this negotiation is allowed to fall through. In the course of time, and that not so very remote, London will extend itself in this direction without a single open break, and succeeding generations will be left to lament over the want of foresight exhibited by their predecessors. It is announced that one subscriber has promised to raise his subscription from £200 to £1000, provided an additional £20,000 is subscribed, and we sincerely hope that the renewed efforts of the promoters will eventually be crowned with success.

As the Social Science Association will this year commemorate the twenty-fifth anniversary of its foundation, the Council have invited Mr. Hastings, M.P., to accept the presidency of the Congress to be held at Nottingham from September 20 to 27. Mr. Hastings, in conjunction with the late Lord Brougham, was mainly instrumental in founding the Association.

An outbreak of scarlet fever is reported from Accrington, the deaths being unusually numerous. The day-schools have, as a matter of precaution, been ordered to be closed, and most of the other educational establishments in the town have followed this wise example.

THE EXPEDITIONARY FORCE TO EGYPT.

THERE is still little to communicate with respect to the expeditionary force which has been sent out to Egypt. The whole of the selected troops have now left for the seat of operations, and before long an active movement of some description may be looked for. Meanwhile the question of the water-supply bids fair to become very serious. It is stated that the troops are to be supplied with water from condensers, but the continued influx by all arriving steamers of people of the lower classes from Mediterranean ports is likely to lead to serious difficulties in connexion with the water-supply, and communications have been addressed to foreign Consuls, with a view of checking as much as possible these unwelcome additions to the population of Alexandria. Dr. Mackie, who is Surgeon to the British Consulate, Alexandria, and to the Deaconesses' Hospital, and whose long experience in Egypt entitles him to consideration, has pointed out that among the diseases to which our troops will be exposed in that country is the endemic hæmaturia, which prevailed largely among the French troops in the expedition of 1799. About three-fourths of the Fellaheen population, he says, suffer from this distressing scourge. It is caused by a parasite, supposed to find its way into the human body by the intermediary of small fresh-water molluscs, with which many of the canals abound. Last year about a dozen members of the staff of the Eastern Telegraph Company, at Suez, were invalided within a month or two from the disease. Dr. Murison, who is Dr. Mackie's colleague, and who reported on it to the Company, found that all those who were attacked had, when out walking or shooting, drunk directly from the sweet-water canal near Suez, which swarms with molluscs and small worms. The disease is believed to be entirely preventable by avoiding drinking directly from the canals, or bathing much in muddy water, and by using for drinking purposes only water well boiled or well filtered, care being taken that the filter is kept thoroughly clean and in good order. Deputy Surgeon-General J. Lamprey, M.B., late Principal Medical Officer of the Devonport District, has been specially selected to assume charge of the military base-hospital established at Cyprus on the hills, and Brigade-Surgeon R. J. Lofthouse, M.D., proceeds with him to act as assistant. Brigade-Surgeon R. W. Jackson, C.B., has been appointed to the medical charge of Sir Garnet Wolseley's headquarter staff—a duty which he has twice previously performed for Sir Garnet, in Ashantee and in South Africa.

AN ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

A MEETING of Fellows of the Royal College of Surgeons of England, called by advertisement, was held at the Medical Library, Worcester, on Thursday, August 10. Present—C. G. Wheelhouse (Leeds) in the chair; Messrs. William Adams, Pearce Gould, Dr. Howard, Sir W. Mac Cormac (London), Allard (Tewkesbury), Banks (Liverpool), Balding (Royston), Carter (Pewsey), Cowell (London), Crosse (Norwich), Cornwall (Fairford), Harris (Redruth), Reginald Harrison (Liverpool), Haslam (Birmingham), Husband (Bournemouth), Manby (Wolverhampton), Rushton Parker (Liverpool), Augustin Prichard (Clifton), J. Archer, Oliver Pemberton, Vose Solomon, Watkin Williams, Lawson Tait (Birmingham), Teale (Leeds), Dr. Rayner (Stockport), W. L. Underhill (Tipton), Welch (Honiton), Dr. Roger Williams (London), and Mr. Bartleet (Birmingham). Mr. Bartleet said he had received numerous letters approving of the meeting at Worcester, and expressions of regret at inability to attend. Mr. Wheelhouse and Mr. Bartleet having explained the objects of the meeting, it was proposed by Mr. Lawson Tait, seconded by Mr. Oliver Pemberton, and, after considerable discussion, resolved *nem. con.*:—"That an Association of Fellows of the Royal College of Surgeons of England be and hereby is formed. That the objects of this Association be the consideration of all matters affecting the interests of the Fellows and the government of the College. That the annual meeting of this Association be held at and during the annual meeting of the British Medical Association. That the Fellows attending the present meeting do form a committee of this Association for the present year, and that Mr. Wheelhouse be President, Mr. Husband Treasurer, and Mr. Pearce Gould and Mr. Bartleet Secretaries; and that all Fellows of the College be eligible as members upon payment of an annual subscription of five shillings."

SPURIOUS CINCHONA BARK.

OUR contemporary, the *Indian Medical Gazette*, says that attention has recently been directed to a spurious cinchona bark imported in increasing quantities from America, which yields only 2 per cent. of quinine instead of the usual percentage of 10 per cent. On investigation it has been found that the bark in question is obtained from a plant of the order *Rubiaceæ*. Hopes are entertained that the discovery that quinine can be obtained from other sources than the true cinchona may result in an easier and more extended cultivation of plants yielding the invaluable drug.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-first week of 1882, terminating August 3, was 932 (504 males and 428 females), and among these there were from typhoid fever 31, small-pox 11, measles 13, scarlatina 3, pertussis 6, diphtheria and croup 38, dysentery 1, erysipelas 7, and puerperal infections 7. There were also 46 deaths from acute and tubercular meningitis, 173 from phthisis, 13 from acute bronchitis, 35 from pneumonia, 132 from infantile athrepsia (46 of the infants having been wholly or partially suckled), and 28 violent deaths (24 males and 4 females). The number of deaths registered is nearly the same as that of last week, and is less than the mean of the four preceding weeks. The differences in the various epidemic affections are trifling. The number of deaths from typhoid fever has diminished for the last month; but it is to be expected that the diminution will not be of long continuance, as the admissions for the disease rose in the week from 73 to 104. The births for the week amounted to 1183, viz., 602 males (455 legitimate and 147 illegitimate) and 581 females (437 legitimate and 144 illegitimate): 71 infants were either born dead or died within twenty-four hours, viz., 37 males (24 legitimate and 13 illegitimate) and 34 females (28 legitimate and 6 illegitimate).

POISONOUS CHEESE.

CASES have occasionally been reported of alarming symptoms following the eating of American cheese, in which analysis failed to discover any known irritant poison. A chapter in the Report of the Board of Health of Detroit may throw some light on the subject. There is in that city a glucose factory, the product of which—a very different article from the chemically pure glucose of our laboratories, and fetching but 2c. or 3c. per lb.—is largely used for the adulteration of cane-sugar, molasses, honey, and confectionery, and the manufacture of spirits. The waste—a sour mass of decomposing maize-meal, sugar, lactic and sulphuric acids, and known as "sugar meal,"—is used for feeding pigs, and occasionally cows. Dr. Wight, the health officer, strongly deprecates its employment for the latter purpose, on account of its injurious effects on the milk, and states that the cheese made from such milk, although presenting when fresh nothing peculiar, "rots down" in about a month, and if not consumed within that time is frequently so changed in appearance as to be returned by the purchasers. Such "cheese," if eaten just before becoming unsaleable, would almost certainly give rise to symptoms resembling those due to irritant poisoning.

THE MEDICAL HISTORY OF WORCESTERSHIRE.

AS *apropos* to the recent meeting of the British Medical Association at Worcester, Mr. A. H. F. Cameron has compiled, in the form of a pamphlet, "The Medical History of Worcestershire." At the outset he remarks that Worcester has long been famous in the annals of medicine, a statement which is confirmed by the fact that Sydenham wrote one of his well-known treatises in response to the request of a Worcester physician, Dr. William Cole. Beginning so far back as 1275 with one Hugh D'Evesham, Archdeacon of Worcester, who, after the custom of that age, combined the duties of healing both the soul and the body, and eventually became a Cardinal, Mr. Cameron enumerates the leading medical practitioners of note in the city down to the present time. The pamphlet concludes with a piece of information not generally known—namely, that the late Lord Hampton (better known as Sir J. Pakington) and Edward Field, Bishop of Newfoundland, were both sons of Worcester practitioners.

ON THE RELATION BETWEEN THE SPECIFIC GRAVITY, THE FAT, AND THE SOLIDS NOT FAT, IN MILK.

A FEW months ago we described a rapid method of examining milk, practised by Dr. Vieth at the laboratory of the Aylesbury Dairy Company. We recommended it, or some similar method, on the ground that the analyst would be thereby enabled to make a much greater number of analyses in a given time, and might thus exert a *constant control* over the dairies of his district, resorting to the more accurate, but far more tedious, procedure hitherto employed whenever the results of the shorter process indicated or led him to suspect adulteration. Mr. Otto Hehner and Mr. Wynter Blyth have recently been independently studying the relations subsisting between the specific gravity of milk and the percentage of the solids, fat and not fat, of the relative proportions of which the specific gravity is the component result, being lowered by the presence of fat, and raised by the casein and sugar. For the details of Mr. Hehner's investigations and of the process he has been led to adopt, we must refer our readers to his paper in the *Analyst* of August. We may here content ourselves with a statement of the principles involved. He argued that if we could ascertain accurately the degree in which each percentage of fat lowers the specific gravity below that of water, and that to which each percentage of the other solids raises it above 1000, we could infer the amount of each present from that of the other. Having done this, he found that by a little algebraical manipulation the fat and the solids not fat could be calculated from the amount of total solids and the specific gravity alone. The factor for the fat he ascertained to be 0·725, and for the other solids 3·605—together 4·33. His calculation for any given sample of milk is as follows:—Multiplying the total solids by 0·725, adding to the product the excess of the specific gravity over 1000, and dividing the sum by 4·33, we have the solids not fat, which subtracted from the total solids gives the amount of fat. This he found to hold good even of such extreme samples as skim-milk and milk unusually rich in cream. If we represent the specific gravity over 1000 by G, the total solids by T, the solids not fat by S, and the factors referring to the fat and the other solids by f and s respectively, the estimation reduced to a formula reads—

$$S = \frac{G + T f}{s + f}$$

where the total solids and the specific gravity having been ascertained, and f and s being constant, the only unknown quantity is S, or the solids not fat, the fat being obtained by deducting the solids not fat when calculated out from the total solids. Mr. Hehner finds that Sprengel's tube is very much to be preferred to the old specific-gravity bottle.

EGYPTIAN RELIEF FUND.

WE are asked by Lieutenant-Colonel F. Duncan, Director of the Ambulance Department of the Order of St. John, to state that information has reached the Central Committee of the St. John Ambulance Association that the amount of distress and sickness among the civilian residents in Alexandria, Port Said, and Egypt generally, is appalling, and that unless some steps are taken at once, fatal results must ensue on a terrible scale. A circular has been sent to all the ambulance centres in the United Kingdom, appealing for volunteers from the ladies holding certificates, who would act as district visitors among the poor, and it is proposed also to send a staff of trained nurses. Viscountess Strangford has kindly consented to go out in charge of the nurses and district visitors, and her presence will give assurance that the work will be patiently administered. Several gentlemen are also ready to go at once out to Egypt to assist Lady

Strangford, and to relieve her of much of the burden of local organisation. But funds are greatly needed, and subscriptions will be thankfully received by Viscountess Strangford, 3, Upper Brook-street, W.; Major-General Burnaby, M.P., 51, Eaton-square, S.W.; Captain H. C. Perrott, St. John's Gate, Clerkenwell, E.C.; and by Lieutenant-Colonel F. Duncan, R.A., 29, The Common, Woolwich.

THE HEALTH OF BRISTOL DURING THE YEAR 1881.

To his report on the sanitary condition of the city and county of Bristol for the December quarter of 1881, Mr. David Davies, Medical Officer of Health for the district, appends a summary for the whole of last year. From this it would appear that the total deaths registered within the Parliamentary borough during the past year were 4050, giving a rate of mortality of 19·6 per 1000, against 20·0 during the year 1880, and 21·4 during 1879—a gradual but steady fall in the returns, which must be pronounced encouraging. In treating of the zymotic class of diseases, Mr. Davies records that there was no death from small-pox in the city during the year; it broke out at three different points, but in each case by isolation and thorough disinfection it was stamped out. Measles were responsible for 120 deaths, but this disease had no connexion in its origin with general sanitary conditions, being in every case the result of infection from person to person. The majority of the public, Mr. Davies says, regard it as an unavoidable incident of child life, and do but little to control the spread of it. Scarlet fever was responsible for 153 deaths, against 244 during the previous year. Though much has been done, the report adds, in checking the spread of this disease, by isolation and other means, it has been found almost impossible to prevent idle women visiting infected families out of curiosity, and for the love of gossip, and so conveying it to their own homes and those of others. Mr. Davies feels it his duty to call attention to the great need that exists in Bristol for more breathing-spaces or public parks, and he has no hesitation in averring that a public park in each of the populous sub-districts of St. Philip and Bedminster would materially lessen the mortality of the city, which should also be provided with at least two swimming-baths available for the children of the poorer classes during the summer months.

PROFESSOR VON LANGENBECK'S SUCCESSOR.

THE *Berliner Klinische Wochenschrift* makes the following observations upon the difficulties which lately arose in supplying a successor to Langenbeck:—"Our readers are aware that not only Billroth of Vienna, but also Volkmann of Halle, declined complying with the call to Berlin. We cannot but, in the interest of our University and city (a large circle in which has manifested great interest in this nomination), express the liveliest regret at the refusal of two such men, whose names, especially that of the former, must necessarily present themselves when the first German surgeon is sought to be obtained for the chief city of the German Empire. It would, however, be entirely untrue to assign these refusals to any other cause than the personal relations which both clinical professors have established with their respective universities. And Volkmann's refusal is a strong proof how little reality there is in the fear-created phantom that a powerful centralisation is to be dreaded. If a town and University like Halle can maintain a rivalry with Berlin, and fetter the wishes of a power of the first rank, this shows how far we, to our great joy, are removed from the condition of things which prevails, for example, in France, where such an occurrence would be an impossibility."

A NEW MEDICAL SOCIETY FOR THE WESTERN SUBURBS OF LONDON.

ON Friday afternoon, July 28, a numerously attended meeting of medical men practising in the Western district and suburbs of London took place in the Board-room of the West London Hospital, and after voting Dr. Goddard Rogers into the chair, carried a series of resolutions, the most important of which constituted a new society. This, now named the West London Medico-Chirurgical Society, is to meet at the above-mentioned Hospital on the first Friday of every month at 8 p.m. throughout the winter, for the consideration of subjects connected with the arts and sciences of medicine, surgery, and midwifery. The annual subscription is 5s., and there is no entrance fee. Though intended mainly for the use and advantage of local practitioners, all "medical *men* not practising homœopathy" are eligible for membership. The Society has been started with considerable enthusiasm, although, in consequence of the near approach of the holiday season and the desire to give the Council and secretaries time to prepare for next winter, the meeting was held at somewhat short notice. The Society is likely to commence with a hundred original members. The Council are keeping the list of original members open, and the secretaries are anxious to receive applications for membership. The following officers were elected for the first year:—*President:* Dr. Edward Hart Vinen. *Vice-Presidents:* Dr. Thudichum, Mr. Bowater J. Vernon, Mr. Hemming, and Mr. Frederick Lawrance. *Treasurer:* Mr. William Bird. *Council:* Drs. Alderson, Pickett, Goddard Rogers, Sinclair Thomson, and William Travers; Messrs. Alderton, Barnes, Lunn, Ottley, Potter, Walker, and Willing. *Secretaries:* Mr. C. B. Keetley and Mr. F. F. Schacht.

MILNES *v.* THE CORPORATION OF HUDDERSFIELD.

A CASE of great importance, as regards responsibility for the evil effects of an impure water-supply, was tried before Mr. Justice Mathew, at Leeds, on the 3rd inst. The plaintiff, a solicitor practising at Huddersfield, had suffered great injury to health by drinking water supplied by the Corporation, which had caused lead-poisoning. His case was that the defendants had failed in their statutory duty to supply pure and wholesome water for domestic purposes, or had failed to discharge the common-law duty to supply water that was fit for consumption. Symptoms of lead-poisoning had commenced about a year ago, and since then the plaintiff had suffered very severely. He had wrist-drop and other marked symptoms of lead-poisoning; and it was stated that at one time he suffered from a form of delirium consistent with lead-poisoning. In consequence of his illness his practice had greatly fallen off. The water drunk by the plaintiff after leaving the main passed into plaintiff's premises through leaden service-pipes which had been laid down by the Corporation at the request and at the expense of the plaintiff or his landlord. It appears to have hardly been disputed on the part of the Corporation that the deliveries into the plaintiff's premises were unwholesome and injurious, or on the part of the plaintiff that the water in the main was wholesome. The chief question was, therefore, whether it was the duty of the Corporation to supply to the plaintiff water that would be wholesome after passing through the leaden service-pipes, or whether their obligation was discharged by their supplying water that was wholesome when it left the main; though some questions were also raised as to whether, supposing the plaintiff had a right to recover, he had taken the right way of doing so. The jury were directed to assess the amount of compensation to which the plaintiff would be entitled should he succeed

in his action; and they awarded him £2000 damages. The case was then adjourned in order that the questions of law might be argued before the judge in London.

AMERICAN MARGARINE CHEESE.

In the *Analyst* for this month Dr. Vieth gives his analyses of two American cheeses, one containing lard, and the other oleomargarine, in place of the butter fat. The taste of the former he found "peculiar," but the latter bore a close resemblance to Cheddar, and contained—water 37·99, fatty matters 23·70, casein, etc., 34·65, and mineral matters 3·66 per cent.—nearly the same proportions as occur in good *double* Gloucester. His conclusions as to the legitimacy of the practice of the artificial addition of fat to what would otherwise have been a poor *single* cheese, are precisely those which we recently maintained. He says: "As the butter fat takes the highest price if sold in the form of butter, and as it can be replaced in cheese without prejudice to a certain extent; as, further, such a cheese if carefully prepared is very little more expensive and much better than cheese made entirely of skim-milk, I do not see any objection against these artificial-fat cheeses. Of course they must be sold as what they really are, and security ought to be given that only the fat of sound animals is used, and that it is prepared for the purpose in a clean and unobjectionable way."

THE HEALTH REPORT ON VENTNOR FOR THE YEAR 1881.

In the town of Ventnor, Isle of Wight, there were registered during the year 1881, according to the annual report of Dr. Russell Woodford, the Medical Officer of Health for the district, the births of 118 children, and the deaths of 104 persons. The number of deaths is stated to be equivalent to a mortality-rate of 18·3 per thousand persons living; but this, the report points out, cannot fairly be accepted as the actual death-rate of the town, since it includes the deaths of forty-nine strangers, not inhabitants, who were known to have come into the district with their fatal illnesses upon them. As many as sixteen of these were inmates of the St. Catherine's Home for advanced consumption. If these forty-nine cases be deducted from the total number of deaths, the more correct rate of 9·6 per thousand for the year is arrived at, which is a remarkably low rate, and, Dr. Woodford points out, bears favourable contrast with that of the whole of the island, which was 14·5 per thousand. The comparative freedom of Ventnor from zymotic diseases is also alluded to, only three cases of typhoid fever having occurred during the year—a number which, it is stated, shows considerable diminution in comparison with former years, and is to be regarded as the result of careful and anxious attention recently bestowed on sanitary matters in the district. It should further be noted that during the whole year no death occurred from measles, scarlet-fever, small-pox, diphtheria, erysipelas, or whooping-cough. The sickness amongst infants was also small, scarcely any cases being recorded under two years of age. Many of the diseases occurring were those incidental to old age, no less than eleven deaths being those of persons over seventy years of age, some of them indeed being over eighty. There can be no doubt, Dr. Woodford thinks, that to its peculiarly sheltered climate Ventnor is largely indebted for its comparative freedom from many diseases known to have been prevalent elsewhere during the past year. Although much has undoubtedly been done by the sanitary authorities to secure the present satisfactory condition of Ventnor, it must nevertheless be recorded that as yet the town possesses no hospital for the isolation of cases of infectious disease. Conjoint action was proposed with Sandown and Shanklin, and subsequently with Shanklin alone; but no result has yet been arrived at.

His Grace the Archbishop of Canterbury has consented to be President of the Zenana and Medical Mission Society.

The following special promotions have been made in Her Majesty's Fleet for services rendered at the attack on the forts at Alexandria on July 11:—Staff-Surgeon Edward Meade, to be Fleet-Surgeon; Surgeons Wm. Brown, John Cassilis Birkmyre Maclean, M.A., M.B., to be Staff-Surgeons

The Queen has been graciously pleased to order that Fleet-Surgeon Doyle Money Shaw, R.N., be appointed a Companion of the Most Honourable Order of the Bath.

Their Royal Highnesses the Prince and Princess Christian of Schleswig-Holstein have been pleased to appoint Thomas John Maclagan, Esq., M.D., Physician-in-Ordinary to their Royal Highnesses.

Mr. William Penhall, of Trinity College, Cambridge, who, together with his guide, was unfortunately killed by an avalanche while ascending the Wetterhorn on the 3rd inst., was the son of Dr. Penhall, of St. Leonards-on-Sea, and was himself studying medicine at St. Bartholomew's. Mr. Penhall was a member of the Alpine Club, and, it is said, a very experienced climber; while his guide, Andreas Maurer, was one of the best known and most trustworthy of living Swiss guides.

Of the 284 students who sent in their names for the Primary Examination for the Licence of the Royal College of Physicians, about thirty failed from one cause or another to present themselves. Of the 256 candidates who were examined, 153 were approved and 83 were not approved by the examiners.

Curious History of an Anatomical Specimen.—Few of our readers know the romantic history of one of the specimens in the remarkable collection of preparations illustrating the anatomy of the ear, in the possession of the College of Physicians of Philadelphia. Prof. Josef Hyrtl, who prepared the specimens (and from whom they were bought), had such relations with scientific men and dealers that he was able to procure many unusual specimens, sometimes by purchase as great rarities (not to be "ordered" as wanted), sometimes by exchange, and sometimes as presents. The history of some of these is found in a little pamphlet which he published in 1873. The specimen from the hippopotamus has a very peculiar and amusing history attached to it. No living hippopotamus had then been brought to Europe from the time of the Romans, and the anatomy of its viscera was entirely unknown when the French Government sent M. D'Abbadie as Minister to the King of Schoa, Abyssinia. The Academy, before he left, expressed an earnest wish that he would send them the viscera of a young hippopotamus in Gannal's solution. The Minister obtained the coveted prize with unexpected and most creditable tact. On his arrival he found his sable majesty laid up with articular rheumatism, and was soon besought to lend his services, as in the Orient all Franks passed for physicians. "Assuredly," M. D'Abbadie resolutely replied. "Bring me the remedy," said the King; "I would give my crown to be well again." "Nothing is easier; the remedy is hippopotamus-fat." "Fetch a hippopotamus," said the King in haste to his attendants. "Not so fast, your Majesty; it must be the fat of a female that is pregnant," said the wily ambassador. Diplomacy has its place even in science. The hunters soon returned successful, and D'Abbadie rubbed the fat into the joints of the King, and cured him. History says nothing of his fee, but she does record the fact that the fœtus was sent to the Jardin des Plantes. There De Blainville allowed Hyrtl to remove one of the temporal bones, and so the College of Physicians has the labyrinth of the hippopotamus of Schoa.—*Phil. Med. News*, July 22.

THE BRITISH MEDICAL ASSOCIATION JUBILEE MEETING.

(From our Special Correspondent.)

The third general meeting was held on Thursday morning, at which the reports of the Medical Reform Committee and the Committee on Habitual Drunkards were read and adopted. The former report chiefly dealt with the work of the Royal Commission on the Medical Acts, expressing great approval of their work, and of the resolutions which they (the Royal Commission) had formulated, and which were practically the essential points of reform that the British Medical Association had long advocated. The chief of these were—(1) a compulsory minimum examination in each division of the kingdom, the passing of which should confer the *sole* qualification for registration; (2) direct representation of the profession on the General Medical Council; (3) the strengthening of the penal clauses for illegal practice, with prosecution by the Public Prosecutor. The report of the Habitual Drunkards Committee was short, and not complete, as the work is still going on. They are trying to bring about the more practical operation of the provisions of the Drunkards Act of 1879, together with such improvements and additions as experience demands.

Professor Stokes, of Dublin, then delivered the Address in Surgery. After a brief reference to the "faithful city" and to Sir Charles Hastings, the founder of the Association, he referred to some of the chief advances of surgery during the past fifty years. Of these he mentioned the abandonment of indiscriminate bleeding, of the reckless use of mercury, and of the employment of severe counter-irritation. He referred with enthusiasm to the introduction of drainage in surgery by the late M. Chassaignac. But the three advances on which Professor Stokes dwelt as the most important were the introduction of anæsthetics, the *réunissance* of excisional surgery, and the theory and practice of antisepticism. I need not say more of this Address, as it will appear in another part of the journal. It was delivered with all the ardour and eloquence which distinguish the nationality of the learned speaker. The business of this meeting concluded with the presentation of the Stewart Prize of fifty guineas to Dr. Vandyke Carter for his essay on the Spirillum Fever of India and its Communicability by Inoculation. In the unavoidable absence of the author, the prize was received on his behalf by Surgeon-General Walker.

Work in the various Sections, eight in number, commenced on the second day. In each the President of the Section gave an opening address. I briefly alluded in my last letter to that given in the Medicine Section by Dr. Allbutt. In the Surgery Section Mr. Augustin Prichard (Bristol), in his opening remarks, told us how he had also given the Address in Surgery in 1853, when the Association had attained its majority. He looked back to the time when his own education had commenced with a five years' apprenticeship—to a time when there were no anæsthetics, no clinical thermometer, no ophthalmoscope, hardly a stethoscope, and no antiseptics. He said it was but a few years after the passing of the Anatomy Act, and when body-snatching stories were still rife. One of his own relations had died from the effects of being locked up in a police-cell in his wet clothes after being caught out on a body-snatching expedition. He thought it would be quite interesting if some one would collect together, before all the participators in these expeditions had passed away, all the stories and anecdotes connected with body-snatching; it would do much to let the present generation see how we had advanced in matters anatomical since those "pre-historic" times. He defended the almost abandoned counter-irritation as a valuable remedy in chronic diseases of joints, eye, and ear. Although, said the speaker, they had no anæsthetics, he found, as regards operations, that matters were much as they are now—patients made up their minds to the inevitable then as now. He briefly referred to the great advances made in abdominal surgery, attributing much of the gain to the use of antiseptics; and concluded his address with a mention of some of the great surgeons who had died during the past year—James Luke, John Flint South, James Spence, Professors Pirogeff and Busch.

In the Section of Public Medicine, Dr. Carpenter (Croydon) reviewed the work done by the Association in this department since its foundation. It will be remembered that Sir Charles Hastings, in his opening Address in 1832, formulated five principal objects to keep in view, the third of which was "investigation of the modifications of endemic and epidemic diseases in different situations and at various periods, so as to trace, so far as the present imperfect state of the art will permit, their connexion with peculiarities of soil and climate, or with the localities, habits, and occupations of the people." How far this has been done we all know; and of the vast importance of sanitation, not only in towns but in houses also, none now have any doubt.

Professor Humphry (Cambridge) gave the opening address in the Section of Anatomy and Physiology, the first time such a Section has been recognised by the Association at these annual meetings. He dwelt at first on the divergence of anatomical and physiological teaching, pointing out how such divergence was the necessary outcome of further developments—an evil, if evil it be, shared by other sciences. The author showed how the bare, naked facts of anatomy ought to be associated with the knowledge of mechanical adaptation, of morphological relation, and of developmental phenomena.

In the Section of Pathology, Dr. Hughlings-Jackson gave a short but appropriate address on the value of pathological anatomy to the general practitioner. He told us how he himself, while at York, had been associated with other practitioners as a post-mortem club, their object being to make all the post-mortem examinations they could in company—especially coroners' post-mortems. He insisted that pathological anatomy is essential to a practical knowledge of disease in the living, and urged the practitioners present to club together for that purpose. The value of pathology, Dr. Hughlings-Jackson said, was twofold. It informed us of the actual cause of death, while it corrected any mistake in diagnosis which we might make during life. "A post-mortem examination never flatters us. If, for example, we diagnose tumour of the cerebellum during the life of a patient, we may—post-mortem—find one in the anterior cerebral lobe. Such a rap on the knuckles is good for us. It makes us *less confident*; it teaches us to be *more careful*."

In the Obstetrical Section, owing to the unavoidable absence of the President, Dr. Leishman (Glasgow), an inaugural address was not given; but Dr. Sinclair Coghill (Ventnor) opened the proceedings with a few words of welcome.

In the Section of Ophthalmology, Mr. Vose Solomon (Birmingham) congratulated those present on the rapid advances which had been made in this department of scientific medicine. He especially referred to cataract and its treatment, and to the various methods by which the advantages of antiseptic dressings and practice might be made available. He warned against the too ready adoption of foreign methods of procedure, and alluded with pleasure to the establishment of the Ophthalmological Society of the United Kingdom as a court wherein the evidence of a large number of surgeons could be taken on any moot points. The speaker was particularly glad to see that physicians and surgeons contributed to the discussions papers on the morbid conditions of the nerve-centres as indicated by the ophthalmoscope; "so long as this happy combination continues in our Society, all danger of the prevalence of the narrowness of specialism will be avoided."

The address in the Section of Otology was delivered by Mr. Laidlaw Purves. He began by congratulating the Section on the honour which had been done them in so early promoting them this year to the full honours of a section. When he remembered how long ophthalmology had remained a subsection, he could but congratulate the aurists present on the early date at which they themselves had received their promotion. Having to deal with opaque media, he could never hope to see any instrument invented which should be to aurists what the ophthalmoscope had been to ophthalmologists; still, by the use of mirrors, microscopes, and of specula, very great advances had been and were being made. Among subjects requiring greater study, he particularly mentioned the determination of the field of audition, a sense corresponding with the colour sense of vision.

The fourth and concluding general meeting was held on the Friday morning. The first business was the discussion of the compulsory notification of disease. This subject was discussed on Thursday afternoon in the Public Medicine Section, and I believe was subsequently transferred to this public meeting, in order that a more general expression of opinion, and even a vote, might be obtained on it. I will endeavour to give the gist of the two discussions. Dr. Ransome (Manchester) read a paper in the Section of Public Medicine on the Scientific and Practical Objects of the Registration of Disease. In the first part of this paper he advocated very strongly compulsory notification. Dr. Carter (Liverpool) then read his paper, strongly opposing this notification scheme. The following is a brief *résume* of his views:—To prove the value of compulsory notification, two things, he said, were necessary. Firstly, towns which have had the largest experience of it should show that they have advanced sanitarily at a greater rate than those without it; and secondly, that they have had no other agents adequate to cause the improvement. No attempt had been made to establish these necessary points; instead of it the mortality from certain diseases for an arbitrarily selected number of years before compulsory powers were obtained was compared with it during a smaller period afterwards, and if this result was favourable it was put down to the Act. Mr. Hastings, Mr. Sergeant, and many others had cited Bolton as a conspicuous example of the benefits of this kind of legislation, but when compared with Liverpool or the country generally it was found that they without any such Act have progressed very much faster than Bolton had with it. Proofs of concealment of disease were then given, from Warrington and Bolton especially. It was further pointed out that the present demands were not final. Mr. Michael was quoted to the following effect: "If we really had the power to carry out all that science tells us is essentially necessary for the conserving of the public health the clauses I hold in my hand would be very much extended." Yet the clauses were for putting compulsion on medical men; compulsory removal to hospital; compulsory closure of shops and schools, etc. The increasing stringency in such towns as Huddersfield and Bolton, and the extravagant demands from Dundee and Warrington, were pointed to as an indication of what was to be expected generally.

Several speakers were against the notification by the medical attendant, arguing that it converted the doctor into a police spy, and tended to destroy that confidence between doctor and patient which was essentially necessary to successful treatment. Dr. Littlejohn (Edinburgh) spoke in its favour; his statements were not, he said, merely conjectures, but the actual outcome of a practical knowledge of the working of such an Act during four years. Edinburgh was a very large city: the seat of a University with a large school of medicine, and there were some two or three hundred medical men. He had never had difficulty with any of them; on the contrary, from being antagonistic, they were now glad of his co-operation. He had drawn up a printed circular, which was supplied to them; whenever a case of infectious disease occurred, the circular was filled in and sent to him. At the bottom of the circular there was a little clause, that his services *were* or *were not* required. If they were *not* required, nothing further came of the notification; if they *were* required, he put himself in communication with the medical attendant, and never acted without him or without his approval. Whereas, before the Act was passed, fever was endemic in the city, they had it now completely under control.

At the public meeting the views of these speakers were again set forth, no new argument being used on either side. Dr. Carter, at the end of his remarks, proposed, as a test vote, the following resolution:—"That a *plebiscite* be issued, asking whether the members of the Association did or did not agree to the principle of compulsory notification." Dr. Littlejohn, at the end of his speech, declared against a *plébiscite* on the ground that the majority of medical men had not duly thought the subject out; and he moved as an amendment—"That this meeting decline to withdraw from the position which the Association has repeatedly taken in urging Parliament to make the notification of infectious disease generally compulsory" (that is, on the medical man). Mr. Everett seconded the amendment, saying that the medical man was obviously the proper person to notify, as the only one who could rightly diagnose the disease. Dr. Carpenter reminded the meeting that there were penal clauses for non-compliance with the Act, and asked whether medical men could not do their duty without having penal clauses hung round their necks. He thought notification should be made by the householder. Mr. Hastings, M.P., said that he intended that the Bill which he had introduced into Parliament this session should have been referred to a Select Committee, so that the evidence of the medical profession might have been taken and thoroughly sifted; but the Bill had been blocked, chiefly by two members who were anti-vaccinators as well as antagonistic to this measure. He should, however, reintroduce the Bill next session, and he hoped that the profession would not oppose it. The objections urged at present were rather sentimental ones, similar to those that were once urged against giving a certificate of the cause of death, which every medical man now did without objection. Thirty-one cities and boroughs had voluntarily adopted the Act, and no representation from any town in which the Act was in force had been received, asking to be relieved of it. His own feeling was in favour of a dual system—the notification to be by the householder; and only by the medical man when the householder refused—on the principle, "If you don't I must."

An animated discussion followed. One speaker contended that it was not compulsory on medical men to give a certificate of the cause of death; another pointed out how the Acts at present in force had all been obtained surreptitiously, and had come upon the medical men as a surprise. A show of hands was taken several times over; at last the amendment was declared carried. Thereupon, Dr. Mahomed moved a second amendment, which was carried by acclamation—"That this meeting earnestly desires the compulsory notification of infectious diseases, but wishes to express the opinion that compulsion to notify should be placed upon the householder, in his duty as a citizen, and not upon the doctor." This amendment was then put as a substantive motion, and carried by a large majority.

Some further general business was then transacted; and after the usual votes of thanks to the Mayor and Corporation of Worcester, to the county magistrates, to the President of the Association, and to the medical men of the town and district, had been proposed—they were all carried by acclamation—the meeting broke up.

Besides the sectional addresses already referred to, much interesting work was done in all the Sections. In most of them, in addition to the usual papers, special subjects had been selected for formal discussion. Thus, in the Medicine Section, the treatment of Aggravated Hysteria and allied forms of neurasthenic disease, Chlorotic Murmurs, and Dropsy; in the Surgical Section, the early treatment of Joint-Disease, and Bone-setting; in the Obstetric Section, Subinvolution of the Uterus; in the Section of Public Health, the Alcohol Question, and the Notification of Infectious Diseases; in the Ophthalmological Section, the Extraction of Cataract,—a goodly array of important subjects. As it was impossible to be everywhere at the same time, I cannot say anything on these points, which I regret. In the Pathological Section also some interesting discussions took place—first, on Diabetes, in which Dr. S. Mackenzie, Dr. Pavy, Dr. Saundby, and others took part. Mr. Hutchinson opened a discussion on the Origin of Tumours, in which Sir James Paget, Mr. Butlin, and Dr. Thin took part. On the third day the subject of Bacilli was gone into. Dr. Heron (London) demonstrated Ehrlich's method of showing tubercular bacilli; and Dr. Heneage Gibbes (London) demonstrated his own method. For this he claimed greater simplicity in all the details; the bacilli were visible with ordinary illumination and low powers. In the Surgical Section some interesting discussions took place. That on the treatment of Joint-Disease left us much where we were before. That on Bone-setting, introduced by Mr. Marsh, followed by Mr. Adams, elicited a very good paper from Mr. Dacre Fox, who has had large experience, and is in a position to speak with authority on this matter. He especially advised greater attention on the part of medical men to the slighter forms of injury, and to sprains, from both of which injuries the older bone-setters had made nearly all their reputation. In the same Section, Mr. Lawson Tait read a paper on "A Series of One Hundred Consecutive Cases of Ovariotomy performed without any Listerian Details." He had had 3 deaths —1 from accidental suffocation during vomiting, the other

2 from thrombosis, extending from the ligature to the heart. Of these 100 cases, 6 were pregnant; all got well. 1 aborted, the other 5 went to the full period. One had acute peritonitis at the time of operation; 3 got peritonitis during treatment. Of the 100 cases 2 were solid fibromata of the ovary, both recovering; of the remaining 98 cystoma 11 were parovarian tumours; in 60, one ovary was alone affected—3 deaths; in 27, both ovaries were affected—all of which recovered. In 53 of the total number there were serious adhesions; in the 3 fatal cases there were no adhesions in 2; slight adhesions in 1. He attributed his success to the following points:—First, to the abandonment of the clamp; secondly, to careful cleansing of the peritoneum; thirdly, to careful drainage; fourthly, to increased personal experience; fifthly, to the discontinuance of previous tappings (the two fatal cases of thrombosis had been tapped sixteen and thirty times respectively); sixthly, to the complete abandonment of antiseptics; seventhly, to the establishment of hospital discipline and hygiene.

The Fellows of the College of Surgeons, at the invitation of Mr. Wheelhouse (Leeds), met together to consider the propriety of forming themselves into an association, the object of which should be "to interest the Fellows in the working of the Royal College of Surgeons." Various resolutions were passed, and a committee formed. There is to be one annual meeting, and that is to be held at the same time and place as the British Medical Association holds its meeting.

The annual Museum attracted considerable attention. Considering the mishap which overtook the Worcester Music Hall, in which it had been arranged to hold the Museum (the Hall was totally destroyed by fire), much credit is due to the Museum Committee for their energy and the success with which the arrangements had been completed. The exhibits were arranged in six classes:—1. General pathology—drawings, casts, etc.; 2. Surgical instruments and appliances; 3. Microscopes and instruments of precision; 4. New drugs and chemicals; 5. Dietetic preparations; 6. Medical books, etc.

Hardly of less interest to many of the members present were the arrangements for the less scientific part of the proceedings—their amusements. There was a boundless hospitality on the part of the local doctors: many of them, besides entertaining friends throughout the meeting, kept open house at the breakfast, luncheon, and dinner hours. The Mayor entertained the President and the officers of the Sections at a sumptuous dinner in the Guildhall on the Tuesday evening. On Wednesday there was a Jubilee luncheon at the Shire Hall, when the bust of Sir Charles Hastings was handed over to Colonel Stallard, the Mayor, on behalf of the citizens and Corporation of the city of Worcester.

On Thursday morning the annual temperance breakfast, given by the National Temperance League, took place in the Shire Hall, at eight o'clock. By far the greater number of the members attended, and much speaking took place. Dr. Carpenter, of Croydon, in his advocacy of total abstinence, rather overstepped the boundaries of professional caution. He said that in his own practice, since he had given up the use of alcohol, disease seemed to run a totally different course, and that he was now able to treat diseases of the heart, lungs, and kidneys without any fatalities. This provoked loud cries of disapproval, and the speaker was obliged to explain, and practically withdraw, the statement. Many other speeches were made, all being in favour of total abstinence.

On Thursday evening was the annual dinner, which was attended by all the county magnates, medical and lay. Some able speeches were made; and when I say that Sir James Paget proposed "Success to the British Medical Association," you will know there was at least one eloquent one. Mr. Ernest Hart, in returning thanks for the toast of "The Editor of the *Journal*," gave the following amusing and very *apropos* quotation from some American humourist:—

"Can he leave all his wrongs to the future, and carry his heart in his cheek?
Can he do an hour's work in a minute, and live on a sixpence a week?
Can he courteously talk to an equal, and browbeat an impudent dunce?
Can he keep things in apple-pie order, and do half-a-dozen at once?
Can he press all the springs of knowledge, with quick and reliable touch,
And be sure that he knows how much to know, and knows how to not know too much?
Does he know how to spur up his virtue, and put a check-rein on his pride?
Can he carry a gentleman's manners within a rhinoceros' hide?
Can he know all, and do all, and be all, with cheerfulness, courage, and vim?
If so, we perhaps can make room for him!
And 'tis thus with our noble profession, and thus it will ever be; still
There are some who appreciate its labours, and some who, perhaps, never will."

On Friday afternoon the Lord Lieutenant of the county (Earl Beauchamp) gave a garden party at Madresfield Court, a few miles from Worcester. The house is in the Elizabethan-Queen-Anne style, and is surrounded by a moat. The grounds are very extensive and beautifully laid out. Though some thousand or more persons assembled, so ample are the gardens that no crowding whatever occurred. In the evening a musical *soirée* was given by the President and Mr. Hastings, M.P., in the Shire Hall, when another brilliant party assembled; and on Saturday excursions started in various directions to view all the accessible lions.

During the week various manufactories were open to members, including Dent and Allcroft's glove manufactory, the vinegar works of Messrs. Hill and Co., and many others. The great attraction, however, in this way of course was the Royal Worcester Porcelain Works. The entire process, including the ingredients and the mode of mixing the raw material, was shown to the members, most of whom, I think, availed themselves of the privilege. It is probably not generally known that this establishment owed its rise and foundation to Dr. Wall, "a talented physician, a clever chemist, and an accomplished artist." He managed the concern for its first thirty years, and many a piece of porcelain turned out of the Worcester factory during his government, stamped with the true Worcester mark, the crescent, is now worth its weight in gold. Another point that may interest medical men is the large use of bones which is made at this manufacture. The bones (which are imported from South America) are first calcined, and then ground up with the other ingredients.

The weather throughout left nothing to be desired; it was hot without being sultry, and not one single drop of rain to mar the outdoor part of the programme.

FROM ABROAD.

Sponge as a Surgical Dressing.

Dr. McClellan, Surgeon to the Philadelphia Hospital, in a paper published in the *Philadelphia Med. News*, June 17, wishes to make more widely known the very satisfactory results which he has derived, both in private and hospital practice, from the use of sponge as a surgical dressing. Its advantages are—the simplicity of its application; the certainty of its effects, owing to its natural qualities and receptive capacity; and its efficacy as a compress. Most practical surgeons endeavour to prevent the formation of unhealthy discharges in wounds, or to secure their removal as fast as they collect; but none of the means employed for this latter purpose, such as drainage-tubes, strands of thread or horse-hair, etc., have given entire satisfaction. The power of suction which moistened sponge exerts, affords the best means of drainage, and when properly applied it renders a drainage-tube entirely unnecessary. This in itself is a great advantage, for the tube itself may act injuriously as a foreign body. Only a sponge can do two things at once—drive fluids to the surface, and take them away at the same time. To do this it must be kept constantly moist, and this forms also one of the best means of applying a disinfecting solution of carbolic acid. The efficacy of sponge as a compress must not be overlooked, as it is generally admitted that gentle, uniform compression discourages inflammation, and that pain is diminished by proper adjustment and rest. There are few means so admirably adapted to these ends as a sponge properly applied over a wound. It thoroughly maintains coaptation of the superficial structures, while it brings the deep parts in easy and close contact, thereby favouring union by the first intention.

In selecting a sponge it should be soft and large enough to cover in the wound completely; in cases of large breaches of surface two sponges may be used. It should be trimmed

so as to fit over the parts nicely, and moistened with a carbolic solution (one in thirty). It should be applied directly to the surface, over the sutures, and retained by cohesive straps or a roller, which can be adjusted so as to exert any amount of pressure. Its absorbent properties depend upon its being kept moist, and for this purpose holes should be cut in the strips of plaster to give free access to liquids. A few drops of a weak carbolic solution should be poured into the openings every few hours, enough to keep it moist, but never to saturate, as in that case its efficacy would be greatly impeded. If it is desirable to keep the parts perfectly undisturbed, the sponge may be left for many days; but it is in general preferable to move it daily. With this view two similar sponges may be provided, one being kept soaking in the solution, while the other is being used. When the sponge is removed it will be found to contain whatever discharges may have been produced in the wound, and it should be thoroughly washed out in boiling water, cleansed, and placed in the solution. Dr. McClellan adds that the sponge is equally suited for the treatment of open or closed wounds, and is therefore capable of fulfilling every requirement of a surgical dressing. He has also employed the method of sponge-pressure very extensively in the treatment of carbuncle and abscess, in place of poultices; and has, with the addition of counter-irritation, had invariable success in rapidly draining out the slough or collection of pus, and in producing healing by gentle and steady pressure, without pain or annoyance. He was first induced to try the effect of sponge while experimenting upon the infrequent dressing of wounds as advocated by Mr. Sampson Gamgee, substituting the sponge for the oakum or absorbent cotton recommended by that surgeon. He afterwards discovered that Mr. Furneaux Jordan had already employed sponge in the treatment of wounds.

Professor Billroth on Burns.

The Vienna correspondent of the *Philadelphia Med. News* (July 1) furnishes the following information on Professor Billroth's views regarding the pathology of burns:—

"The patient, twenty years old, had burned himself on the right arm by contact with a mass of red-hot iron. The entire flexor surface of the forearm was of a red colour, very painful, and covered with blisters, of which several ran together to form bullæ.

"Prof. Billroth is accustomed to differentiate between three degrees of burning, in opposition to Dupuytren, who distinguishes six. In the *first* degree (hyperæmia) the skin is of a bright red colour, painful, and, in consequence of the exudation of serum into the skin-tissue, somewhat swollen. Desquamation of the cuticle often occurs, and the capillary vessels are always distended. The *second* degree is characterised by the formation of blisters, some of which immediately follow the burning, others some hours later. These vesicles are caused by the rapid flow of fluid out of the distended capillaries, which lifts up the horny layer of the cutis. The blisters, which originally contained pure serum, or serum mixed with blood, in further course may become purulent. A crust is constructed, under which a new epidermis is formed. Both degrees may be artificially produced by the application of vesicants. By the *third* degree is designated that intensity of a burn in which the deeper situated soft parts are reached and gangrene follows. This degree is always attended with the free production of pus, and the wound heals by granulation. This division is made with relation only to the intensity of the burn. In regard to the extent of surface involved, it is worthy of note, although very little explained by physiological research, that it only requires two-thirds of the surface of the body to be burnt in order to secure certain death. Treatment must be directed entirely to the alleviation of pain, as the formation of skin cannot in any way be accelerated. In the present case, after puncturing the larger vesicles and emptying their contents, the forearm was enveloped in cotton. Other methods consist in the application of cold compresses, or in smearing the burnt surface with oil, in order to lessen pain. With collodion Prof. Billroth has obtained no favourable results. He succeeds very well, however, in burns of the third degree by compression of the burnt part with strips of sticking-plaster, or by application of compresses saturated with a 1 per cent. solution of nitrate of silver."

REVIEWS.

On Hæmorrhoidal Disorder. By John Gay, F.R.C.S., Member of the Council of the Royal College of Surgeons; Senior Surgeon to the Great Northern Hospital; Author of "Femoral Rupture," "On the Indolent Ulcer," "On Varicose Disease," etc. London: J. and A. Churchill. 1882. 8vo; pp. 60.

In this *brochure*, which is for the more part a revised reprint of papers originally published in one of the medical journals, Mr. Gay sets clearly forth some facts and opinions of considerable interest and importance as regards the pathology and treatment of hæmorrhoids. The author's main objects are to show, from anatomical research and large clinical experience, that hæmorrhoidal disorder is for the most part a strictly local affection, that it is rarely, if ever, associated causally with hepatic or other disease, and that the ordinary mode of operation on bleeding piles is far more heroic or severe than it need be. Mr. Gay has very carefully studied certain points in the anatomy of the venous system and the anatomy of "piles." As the result of a close examination of many specimens of piles in the Museum of the Royal College of Surgeons, and of dissections and careful injections made by himself, he has been led to distinguish three forms of hæmorrhoidal swellings, viz.:—

1. Anal plexiform varicosity;

2. Hæmorrhoidal varicosity—the varicose hæmorrhoidal veins; and

3. Hæmorrhoidal varix, saccular or erectile—the true "pile."

Mr. Gay has not been able by his anatomical researches to convince himself that there are any channels of intercommunication between the portal and the iliac veins; and he shows that there is free course for the blood of the hæmorrhoidal veins back to the heart from the establishment of an abundant compensatory, to the main, system. On these grounds he dissents from the common view that portal obstruction has a causal relation with piles; and in support of his opinion he refers to the fact that various affections of the liver, with the exception of cirrhosis, have but a slight effect on the portal or hepatic currents in their course to the cava. As regards the *remote* or *constitutional causes* of piles, his extensive clinical experience has led him to think that heritage plays a considerable part in the *rôle*; and as to *direct causes*, while he points out that those modern usages of society which induce or encourage inaction in the lower bowels go far to constitute the list of such causes, he confesses that the subject presents insuperable difficulties.

As to treatment, Mr. Gay does not offer any *new* means. He points out that the *armamentum* of Hippocrates included every modern invention—styptics, cauterisation, excision, crushing, and evulsion, and that his rules for these several modes of procedure are so excellent that Mr. Gay gives excerpts from his works. But he urges a simplification of method as a rule. His own experience has taught him to prefer the ligature, applied "with such limitation as to include either the summit of a bleeding orifice, or, what is generally preferable, the whole pile. He objects to the usual practice of "bringing down the piles" by means of enforced peristalsis as a preliminary to operation. The method he most generally employs is very simple. The bowels are freely cleared before operating, a ligature is placed on the bleeding pile, or, if necessary, more than one is ligatured—each separately,—and an opiate suppository is employed afterwards. He has rarely found it necessary to cut away the folds of the mucous and submucous tissues that not seldom extrude, on being irritated, in cases of old rectal hæmorrhoids.

Mr. Gay's little work is the outcome of much thought and research, and of an extensive clinical experience, and is a useful, practical addition to the literature of the disorder dealt with.

Statistical Report of the Municipality of Frankfort-on-the-Maine for the Year 1881.

A model of statistical reporting. In sixteen quarto pages the compilers have contrived, by means of well-conceived tables, to compress a vast amount of information valuable alike to the medical and social statist. The register of

marriages contains particulars which we have never seen in similar returns, and the vexed problem of the registration of still-births seems to have been solved by our neighbours. We subjoin the index of contents, with a few explanatory words on each item.

I. Summary of marriages, births, and deaths in each month, with the totals of the three preceding years for comparison. We learn from this table that the mean death-rate is only 19 per 1000, the birth-rate 31·6, and the marriage-rate 8·8, in a population of 139,710, of whom about 110,000 are within the area of the city itself.

II. gives the place of birth of the parties—the men in vertical columns, and the women in horizontal lines, an arrangement carried out in the next table following. The localisation extending to the city of Frankfort, the district around, the province of Herren-Nassau, the rest of Prussia, Hesse, Bavaria, Baden, Wurtemberg, other German states and foreign countries.

III., in five smaller and similar tables, shows the number of men of each age (in quinquennium) who married women of ages divided in like manner—the five tables comprising respectively those between bachelors and spinsters, bachelors and widows, widowers and spinsters, widowers and widows, and the total; divorced persons (20 men and 13 women) having been reckoned as widowed. To this is added the number of marriages permitted between blood relations—viz., double first cousins (7) and uncle and niece (2); the number of marriages annulled by divorce, and of children of each sex legitimised by the subsequent marriage of the parents.

IV. Births in each month arranged in several series, showing whether living or stillborn, legitimate or illegitimate, male or female. From this table we learn that, while of children born in wedlock 1 in 32 was stillborn, of the illegitimate the rate was as high as 1 in 16.

V. This table gives the place of birth of the mothers of illegitimate children, the cases in which paternity was established in court, and the statistics of plural and of posthumous births.

VI. shows the live and still births of each sex monthly in the six registration districts.

VII. gives the deaths in each month of either sex, grouped under thirteen life periods, viz., 0—1, 1—5, 5—10, 10—15, 15—20, 20—30 years, etc., and each distinguished as single, married, or widowed.

VIII. Deaths arranged according to district and age; and IX., to district and month.

X. shows the religion of each person who married during the year, as well as of those who were united with others of like or other denominations; also of the parents, or in the case of illegitimate children of the mother only, of all children, distinguishing the live from the stillborn; and lastly, the religious profession of the dead, excluding still-born infants. We may remark, in passing, that among the 1234 married couples there were no men, and only four women, who could not write. This table is a marvel of condensation, comprising but five lines of figures. Another table gives the social position or occupation of the married and the dead, distinguishing the sexes and those independent or working on their own account from those employed by others, also the occupations of the parents of the legitimate and illegitimate children, live and stillborn, male and female separately.

XI arranges the live and still births, and these, again, legitimate or illegitimate, male or female, and the deaths of each sex, according to the registration districts, and as they occurred in private dwellings or public institutions.

XII. gives the duration of the married life of all males and females at the time of death in each registration district.

XIII., which fills eight of the sixteen pages, shows the cause of death of all persons, male and female, other than stillborn, arranged in four tables—the first in respect of the age of the deceased, the second of the month in which death occurred, the third the registration district, and the last the occupation or social position of the individual.

We may seem to have described with needless minuteness the structure of the Report, but though the vast importance of vital and social statistics is beginning to be recognised by all who are interested in the welfare and progress of the community, we in England are met by the *vis inertiæ* of lawyerism and red tape when we endeavour to impress the consideration on the official mind. We have been repeatedly told that whatever useful information we may extract by our own efforts from the Registrar-General's returns, the primary object of all registration is the security and transmission of property, all else being of minor and subsidiary importance. Major Graham affirmed that he "would as soon register dead cats as stillborn babies," yet what social and moral consequences are involved in this single item of the tables before us! We would heartily recommend the Reports of the city of Frankfort to the serious attention of our newly appointed officials in the Registrar-General's department, or, if it be too much to hope that any material change can be effected there as yet, the experiment might be tried in some of our large towns by intelligent and energetic medical officers of health and registrars.

OBITUARY.

RICHARD GILES, M.D. Edin., M.R.C.P. Lond.

Dr. Giles, who had practised for thirty-five years in Oxford, died at Torquay on Tuesday last, the 8th inst., in his sixty-eighth year, from disease of the heart of long standing. He was born in Oxford. His father was a member of the Corporation, and died of phthisis in mid-life.

Dr. Giles' professional education was commenced under a firm of practitioners at Thame, in the work of a large and varied practice extending over a wide district. He there acquired a familiarity with the wants of the sick-room, without which the treatment advised by experience is seldom carried on with success. Proceeding to Edinburgh, he entered the classes in the Medical Faculty of the University; and after taking in due course the degree of M.D. in the University, he proceeded to Paris, where he spent a further period of study at the hospitals of that city. He afterwards visited Vienna with a similar object.

He returned eventually to Oxford, with the view of practising as a physician. He used to tell of his first case, that the patient died suddenly, and the coroner held an inquiry; the second patient who came to consult him was the foreman of the jury who sat upon the inquest. He gained at an early period the favourable opinion of his seniors in the profession; and he quickly established himself firmly in the confidence of a large and increasing circle in and around the city. From much that was profitable in practice near home, he was at that time excluded by the circumstance of his being connected with the city, rather than with the University; and he lacked also the advantage that graduation in the University gives a man in gaining introduction into the inner society of that famous and wealthy body.

Dr. Giles possessed in a remarkable degree a quality which is of value in every walk of life, and in none more than in our profession—that of relying on his own judgment in the exercise of his calling. In forming his diagnosis at the bedside, and in obtaining by examination of his patient the full information of his case from which alone a correct diagnosis is to be formed, he relied on his own mode of investigation into the circumstances and the course of the illness. He would listen with an appearance of willing submission to the solicitations and suggestions of anxious and officious friends; but he never allowed himself to be led by such interference from his own view of the case, and the line of treatment which, in his opinion, was the one to be followed.

He was a man of active and industrious habits, taking sufficient interest in pursuits outside the profession to give him occupation of an agreeable nature in the intervals of leisure. Though of a constitution naturally feeble, he carried on for many years a large consulting practice, under the frequent necessity of distant journeys, without being disabled by serious illness. It was only after more than one warning of the failing power of his heart, that he decided, at the urgent solicitation of his friends, to take rest. He went to Torquay last autumn; and though relieved at first from the dropsical effusion which had shown itself, he sank, without suffering, under the return of it.

In Memoriam.—A handsome brass eagle lectern has just been presented to the Birmingham Borough Asylum, in memory of the late medical superintendent.

NEW INVENTIONS AND IMPROVEMENTS.

TINCTURE OF THE EUPHORBIA PILULIFERA.

Messrs. Burgoyne, Burbidges, and Co., of 16, Coleman-street, E.C., have introduced into this country the new Australian remedy for asthma and bronchial affections—the *Euphorbia pilulifera*. It is said that the drug has been employed in the colonies, in the affections mentioned, with very happy and satisfactory results; and Messrs. Burgoyne, Burbidges, and Co., having obtained a supply of it, have brought out a tincture as a convenient form for its administration. This preparation is bright and clear, of a dark green colour, and with water it makes a greenish, slightly cloudy mixture of a not unpleasant taste. The drug appears to well deserve a trial. The dose of the tincture is two fluid drachms, equivalent to half a drachm of the herb.

LIQUOR PODOPHYLLI.

We have received from Mr. J. Thompson, of Lodge-lane, Princes-park, Liverpool, a sample of a solution of Podophyllin. It mixes well with water, and constitutes a handy, convenient form of the drug, always ready, and supplying a very easy means of any degree of subdivision of dose.

SHELFANGER WATER.

This new dietetic or table water comes from a spring discovered by a medical man close to Shelfanger, near Diss, in Norfolk. It is a pure natural mineral water, and has been carefully analysed by Professor Attfield, who states that it is "a valuable magnesian antacid and mild chalybeate water." It is bright and sparkling, very pleasant and refreshing, and mixes well with light wines. In order to secure its keeping well when bottled it is supercarbonated at the spring; but it contains some carbonic acid gas naturally. Accommodation is also provided at the spa establishment for those who are able to avail themselves of the additional advantages of taking a holiday in the healthy country where the spring is situated, and of drinking the water at its source. We have no hesitation in recommending the "Shelfanger" as a light, perfectly safe, and useful antacid tonic, and a very agreeable natural mineral water. It may be obtained from all chemists.

CONROY'S MALT COFFEE.

From Messrs. Evans, Sons, and Co., of Hanover-street, Liverpool, we have received a sample of "Conroy's Malt Coffee." This is a mixture of carefully selected malt combined with the finest coffee; and it is claimed for it that it can be taken safely, and enjoyed by persons with whom ordinary coffee causes unpleasant eructation, or otherwise disagrees. It is guaranteed to be entirely free from chicory, and contains 80 per cent. of pure coffee. It is made as a beverage in the same way as is ordinary coffee; is pleasing to the taste, and has a fragrant coffee-aroma.

F. ALLEN AND SONS' PURE COCOA.

Messrs. F. Allen and Sons' Registered Essential Extract of Cocoa is prepared from the finest cocoa-nibs, and contains all the most desirable properties without the oil or fatty matter, which is removed by a special process. One teaspoonful of this "Essential Extract" will be sufficient to make a breakfastcupful of cocoa. It is to be boiled for a minute or two with milk or milk and water, and with the sugar required to sweeten according to taste. It is very pleasant and fragrant.

NICHOLLS'S PATENT HYPODERMIC SYRINGE.

The cylinder of Messrs. Nicholls and Sons' hypodermic syringe, whilst possessing the transparency of glass, has this very important advantage—that it cannot be broken. The material of which it is made is, moreover, unaffected by any of the solutions used for hypodermic injections, and it is warranted to withstand all climates. Practitioners will recognise the significance and importance of these qualities. The instruments are very well made and finished, and can be had in all sizes and varieties, from the smallest hypodermic syringe to an aspirator. They may be obtained from all instrument-makers in town or country. (*See woodcut*).

MEDICAL NEWS.

University of London.—The following are the names of candidates who passed the recent examinations at this University:—

Intermediate Examination in Medicine.

ENTIRE EXAMINATION.

First Division.—George Elliott Caldwell Anderson, Guy's Hospital; William Henry Bowes, Guy's Hospital; James Harry Ernest Brock, University College; John Walter Carr, University College; John Elliott, B.Sc., Owens College and St. Bartholomew's Hospital; William Speed Hayman, King's College; Charles Barclay Innes, St. Bartholomew's Hospital; Frederick William Caton Jones, St. Bartholomew's Hospital; Samuel Cromwell Jones, University College; William Alexander Bowes McCabe, University College; Charles Edwin Purslow, Queen's and Mason Colleges, Birmingham; Charles Stuart Spong, B.Sc., Guy's Hospital; William Ivens Buswell Watson, Guy's Hospital; George Lee Wells, St. Bartholomew's Hospital; Henry Robert Woolbert, University College.

Second Division. Joseph Rosamond Adie, University College; Charles Andrews, University College; Charles Joseph Arkle, University College; Lawrence Barnett, University College; Letitia Caroline Bernard, London School of Medicine for Women; Richard William Brogden, Guy's Hospital; Charles Caldecott, Guy's Hospital; Harry Cecil Chapman, St. Bartholomew's Hospital; William Tusting Cocking, University College; Henry Charles Evans Cooper, Guy's Hospital; Upendra Krishna Dutt, B.Sc., St. Mary's Hospital; Herbert Alfred Hill Fenton, St. Thomas's Hospital; Henry Holdrich Fisher, St. Bartholomew's Hospital; Percy Flemming, University College; Alfred Cromwell Frames, St. Bartholomew's Hospital; Alfred George Francis, St. Bartholomew's Hospital; Frank Hinds, University College; Gerald George Hodgson, King's College; Walter Hurst, Owens and University Colleges; Frederic David Irvin, University College; William Joberns, Queen's and Mason Colleges, Birmingham; Herbert Henry Lankester, St. Thomas's Hospital; Arthur Nicholas Lattle, Bristol Medical School; Langton Philip Mumby, Westminster Hospital; Francis George Penrose, University College; Edmund Cleaver Pettifer, St. Bartholomew's Hospital; Herbert Wilson Pilgrim, University of Edinburgh; Reginald Maurice Henry Randell, Guy's Hospital; Henry Betham Robinson, St. Thomas's Hospital; Rolla Edward Rouse, St. Thomas's Hospital; James Henderson Sellick, Guy's Hospital; Walter Thomas Strugnell, St. Bartholomew's Hospital; James Swain, Westminster Hospital; Alfred Ernest Taylor, Guy's Hospital; Frank Trattman, Bristol Medical School; Philip Dymock Turner, University College; John James Dean Vernon, Guy's Hospital; John Foster Vince, Queen's and Mason Colleges, Birmingham; Arthur Francis Voelcker, University College; Philip Percival Whitcombe, St. Mary's Hospital; Richard Thos. Williamson, Owens College.

EXCLUDING PHYSIOLOGY.

First Division.—George Alfred Carpenter, St. Thomas's Hospital.

Second Division.—Freeland John Freeland, King's College; Alfred Owen Lankester, St. Bartholomew's Hospital.

PHYSIOLOGY ONLY.

Second Division.—Charles Gross, Guy's Hospital; Henry Shillito, Birmingham School and Mason College; Alfred Tilly, St. Mary's Hospital.

University of Edinburgh.—Appended is a list of candidates who received respectively the degrees of Doctor of Medicine, Bachelor of Medicine, and Master in Surgery in the University of Edinburgh, on Tuesday, August 1, 1882:—

The Degree of Doctor of Medicine with the titles of the Theses).—Alfred George Barrs, England, M.B. and C.M., 1875—On Adherent Pericardium of Rheumatic Origin, with cases. Howard Bendall, England, M.B. 1880—On Acute Farcy in Man, together with an Inquiry into the Cause of Death by Fat Embolism. George Reith Brebner, Scotland, M.B. and C.M., 1879—Theory of Vaccination. Robert William Dickenson Cameron, Scotland, M.B. and C.M., 1879—Restraint in the Management and Treatment of the Insane. John Merrit Chisholm (M.A. Edin., M.B. and C.M., 1878—The Etiology of Malarial Fevers. John Halliday Croom, Scotland, M.B. and C.M., 1878—Clinical and Experimental Studies from the Royal Maternity Hospital. Lionel Druitt, England, M.B. and C.M., 1877—Paroxysmal Hæmaturia, or Paroxysmal or Intermittent Hæmaturia, or Hæmoglobinuria. William Grant Farley, Scotland, M.B., 1875—Acute Rheumarthritis: its Pathology and Treatment. Bernard James Guillemard, England, M.B. and C.M. (with First Class Honours), 1875—Notes on the Nutrition and Health Management of Young Children. Henry Handford, England, M.B. and C.M. with Second Class Honours), 1878—On the Connexion between Hæmorrhagia and the Early Stage of Pulmonary Phthisis. Edward William Hope, England, M.B. and C.M., 1875—Clinical Notes on

Fever and Small-pox. Edward de Warren Hutchinson, England, M.B. and C.M., 1879—On Infection. John Rudd Leeson, England, M.B. and C.M., 1876—Chronic Hydrocephalus. George Le Fevre, England, M.B. and C.M., 1877—On Post-partum Hæmorrhage. James Mackenzie, Scotland, M.B. and C.M., 1878—Clinical Report on Case of Hemiparaplegia Spinalis. Charles Alexander M'Lean, Monte Video, M.B. and C.M., 1879—Clinical Notes on Optic Neuritis and Atrophy of the Optic Nerve. Donald Urquhart MacLennan, Scotland, M.B. and C.M., 1878—Notes of Cases of Diseases of the Abdomen. Samuel Rutherford Macphail, Scotland, M.B. and C.M., 1878—Carbolic Acid Poisoning, with special reference to Poisoning from the use of the Acid in Surgery—Robert William Mead, England, M.B. and C.M., 1879—Some of the Diseases of the Stomach. Arthur William Oakes, Australia, M.B. and C.M., 1879—The Medical, Surgical, and Domestic Uses of Eucalyptus. William Bruce Oliphant, Scotland, M.B. and C.M., 1879—Medical Climatology, with special note on Sea Voyages and on the Climate of Pau. James Crawford Renton, Scotland, M.B., 1873—Report of Clinical Work at the Glasgow Eye Dispensary. Joseph Carne Ross, Madeira, M.B. and C.M., 1880—Observations upon the Modes of Treatment of Pleurisy with Effusion; with special reference to the Therapeutic Value of Thoracentesis. William Shaw, England, M.B. and C.M., 1878—Observations on the Excretion of Urea. George Daniel Smith, England, M.B. and C.M., 1875—On the High Altitude Treatment of Phthisis Pulmonalis. Thomas Peter Anderson Stuart, Scotland, M.B. and C.M. (with First Class Honours), 1880—Nickel and Cobalt: their Physiological Action on the Animal Organism. Herbert Coupland Taylor, England, M.B. and C.M., 1878—The Climatic Treatment of Phthisis, and its Geographical Distribution. Alexander Thom (M.A. St. And.), Scotland, M.B. and C.M., 1877—On the Relation of Pyrexia to Germs, and on Salicylic Acid as an Antipyretic Remedy. James Thomson, Scotland, M.B. and C.M. (with Second Class Honours), 1879—Gelatinous Degeneration, with special reference to its Pathology. Alfred Croudson Tunstall, England, M.B. and C.M., 1875—Influence of Climate on Disease. Charles Scott Watson, Scotland, M.B. and C.M., 1876—Cerebral Motor Discharge and Myostatic Irritability. Albert Wilson, England, M.B. and C.M., 1878—Clinical Research with the Sphygmograph.

The Degrees of Bachelor of Medicine and of Master in Surgery.—Robert Swan Aitchison, Scotland; Thomas Aitchison, England; Leonard Thomas FitzSamuel Archer, Barbadoes; Herbert Harding Ashdown, England; Frederick Ashwell, England; George Armstrong Atkinson, England; Thomas Ridley Bailey, England; Peter Baillie, Scotland; Minas Manook Basil (M.A. Calcutta), Persia; Basanta Kumar Basu, India; George James Hamilton Bell, Shetland; Horace Lynden Bell, Ireland; William Barnett Benjafield, England; Joseph Shepherd Bolton, England; John Henry Richard Bond, England; Philip Grierson Borrowman, Scotland; Henry St. George Boswell, India; Charles Harper Bourne (B.A. Durham), Barbadoes; John Bowie, Scotland; Alister Stuart Bowman (B.A. Sydney), Australia; Nathaniel Thomas Brewis, England; Sidney William Bryant, England; William Augustus Buchan, Wales; George Burn-Murdoch, Scotland; Percy Bellamy Bury, England; William Hall Calvert, Scotland; Samuel George Campbell, Natal; Francis Charlesworth, England; Archibald Kennedy Christie, Scotland; James Simpson Clayton, England; Joseph Osborne Closs, Scotland; Philip Brunelleschi Consland, Scotland; James Henry Davidson, Cape Town; John Davies, England; Auguste Sheridan Delepine, Switzerland; George Cecil Dickson, Scotland; John Robert Dobie, Scotland; John Wilson Duckett, England; Henry Aylmer Dumat, Mauritius; Robert Smith Dunlop, Scotland; William Henry Dutton, (M.A. Melbourne), Australia; Henry James Fletcher, England; Alexander Forbes, Scotland; Alexander Ross Fraser, Scotland; Elias Fraser, England; Thomas Alexander Fraser, England; George Wilson Galletly, Scotland; William Gay, England; Lawson Gifford, Jamaica; Herbert James Gilbert, England; William Anstey Giles, Australia; Thomas Gillison, Scotland; Joseph Edward Godfrey, Demerara; James Graham (M.A. Edin.), Scotland; Francis William Grant, Scotland; Henry Lewis Grant, Scotland; John Grant, Scotland; William Francis Grant, Calcutta; Thomas Duncan Greenlees, Scotland; John Griffin, England; Clement Bryce Gunn, Scotland; George Frederick Gutheridge, England; Harry Pinnington Hallows, England; Hugo M'Cauley Hardcastle, Egypt; Arthur William Hare, England; Francis William Nicol Haultain, Ceylon; Francis Henry Hawkins, England; Robert Samuel Finlay Henderson, Calcutta; Selby Herriot Henderson, Scotland; William Whittington Herbert, Wales; Alfred Peter Hillier (B.A. Cape of Good Hope), England; Thomas Alfred Hird, England; Charles Edward Holland, Scotland; Richard Humphreys, Wales; James Hutchison, Scotland; George Washington Isaac, England; John Henry Jackson, England; Granville Jameson, England; Robert Wyatt Jamie (M.A. Aberdeen), Scotland; Cecil Willoughby Johnson, India; James Johnston, America; John Johnston, Scotland; John William Johnston, Scotland; Thomas Christopher Johnson, England; Charles William Jones, England; Daniel Marinus Jones, Bonn; Arthur Corry Keep, England; George Kerr (M.A. Oxon.), Scotland; Arthur King, England; Ernest Kingscote, England; Ernest Dormer Kirby, England; William Henry Lang, Scotland; Percival Basil Le Franc, India; Robert Lesly, England; John Liddell, Scotland; Samuel Towers Linklater, Orkney; George Duncan Logan, Scotland; Duncan Romaine M'Arthur, Ceylon; William Burns Macdonald (M.A. Edin.), Scotland; John M'Fadyean, Scotland; William Mackay, Scotland; Alexander Flyter Mackenzie, Scotland; John Eddie Mackenzie, Africa; Robert Mackinlay, Scotland; Thomas George M'Lauchlan, Scotland; Edward Orr Macniven, Scotland; William Grant Macpherson (M.A. Edin.), Scotland; Adam Macvie, Scotland; Ernest Edmund Maddox, England; George Manook, India; François Paulus Marais, Cape of Good Hope; Rivis Mead, England; Thomas Cockburn Meggison, England; Arthur William Thomas Fllintoff Mickle, England; Arthur John Macket King Mill, Scotland; Bernard Langley Mills, England; Arthur Malcolm Moore, New South Wales; Edward Henry Morgenrood, Cape of Good Hope; Charles James Mouncey, England; Richard Ulysses William Murray, Ireland; James Aitken Myrtle, England; John Brady Nash, Australia; Alfred James Neale, England; Ernest Frederick Neve, England; Ebenezer Henry Lawrence Oliphant, France; Edmund Stuart Palmer, England; George Keppie Paterson, Scotland; Diarmid Noel Paton (B.Sc.), Scotland; Frederick Erskine Paton, Scotland; Robert William Philip (M.A. Edin.), Scotland; Thomas Philip, Scotland; John Randal Phillips (B.A. Durham), Barbadoes; George Carrington Purvis, India; John Rees, Wales; Herbert Rendell, Newfoundland; Alfred Gordon Richardson, Wales; Thomas Charles Rowland, Wales; Ridley Herschel Rozenzweig, Cape of Good Hope; Charles Casely Scott, England; Thomas Laidlaw Shearer, America; Robert John Shaw Simpson (M.A. Edin.), Scotland; Francis William Sinclair (M.A. Edin.), Scotland; Frederick Archibald Sinclair, Jamaica; William Skinner, Scotland; Allen Thomson Sloan, Scotland; David Smart, Scotland; George Arbuthnot van Someren, Scotland; John Buchan Spence (M.A. Edin.), Scotland; Ernest Henry Stancombe, England; Joseph Stapleton, Australia; Donald M'Pherson Stevenson, Scotland; Ralph Stockman, Scotland; Alexander Stookes, England; Jean Renaud Suzor, Mauritius; Sidney Johnson Taylor, England; William Taylor, Scotland; William Fookes Thompson, England; William Thyne, Scotland; Charles John Tiffen, England; Percy Everard Todd, England; David Treharne, Wales; John Andrew Turner, New South Wales; Alexander Valentine, Scotland; Edmund Vaudrey, England; Michael John Verdon, Ireland; Johan Carel Voigt, Cape of Good Hope; Walter Oliphant Walker (M.A. Edin.), Scotland; John George Wallace-James, India; Harold Fuller Watkins, England; William Henry Weston, England; John Whitaker, England; Robert Musgrave Whitham, England; John Mackie Whyte (M.A. Edin.), Scotland; Ernest Wilcox, England; Robert Arthur Williams, Wales; Hector M'Lean Wilson, Scotland; Henry Garnett Wilson, England; William Wilson, Scotland; William Cleaver Woods, England; William Younan, India; George James Young (M.A. Edin.), Scotland.

The Degree of Master in Surgery.—Howard Bendall, M.D.

The Ettles Prize for 1882 has been divided between George Armstrong Atkinson, M.B., C.M., and Sidney Johnson Taylor, M.B., C.M. The Beaney Prize has been awarded to George Armstrong Atkinson, M.B., C.M. The Syme Surgical Fellowship has been awarded to Howard Bendall, M.D. The Buchanan Scholarship has been awarded to David Smart, M.B., C.M.

The following is a complete list of the candidates who passed the Second Professional Examination:—

Alfred Aikman, J. H. L. Allott, John Barrie, Edwin Baily, P. J. Baily (with distinction), H. R. Bramwell (with distinction), A. M. Bremner, R. A. Brewis, G. T. Broach, Herbert Brooks, R. M. Brown (with distinction), Matthew Bruce, S. B. Burns, Dirk Cloete, S. A. Comber, W. L. Cullen, John Davies, W. H. Davies, A. T. Dochard (with distinction), D. G. Donaldson, J. H. Ferguson, Geo. Fisher, W. H. Francis, Alexander Fraser, A. G. Fraser, D. F. Gardiner, R. R. Giddings, John Glegg, W. F. A. Godfrey (with distinction), W. B. Cowans, C. W. Grier, Edwin Greenough, J. S. Haldane (with distinction), F. J. Hall, F. W. G. Hall, T. A. Helme, G. V. Hewland, J. S. Hill, Dirk de N. Hugo, John Hume, Adam Jamieson, J. L. Jackson, John Johnston, F. W. Jones, M. A. Ker, W. U. M. Koch, C. A. Lane, J. S. Law, T. S. Lawry, W. M. Leslie, J. A. Lestrade, H. J. Ley, C. L. Lightfoot, H. S. Lloyd, J. C. M'Clow, Donald Macgregor, F. A. Maciver, J. H. Mackenzie, C. G. Maclagan, J. A. M'Laren, J. S. M'Laren, Andrew Maclennan, James Macpherson, William Malcolm, A. C. Miller, R. S. Miller, B. M. Moorhouse, A. S. Myrtle, J. H. Neale, John Orr, G. D. Orrock, George Park, Sydney Partridge, A. M. Paterson (with distinction), W. E. Porter, W. T. Prout (with distinction), A. S. Purves, Thos. Rhodes, A. L. F. Robertson, J. S. Robertson (with distinction), Chisholm Ross, Frank Rothera, H. D. Rowan, M. A. Savage, Stanley Scott, W. D. Scott, D. A. Smith, L. G. Smith, John Stevens (with distinction), W. M. Sturrock, A. C. Sym, G. P. Taylor, Andrew Thomson, D. G. P. Thomson, George Thomson, J. D. Thornton, R. S. Thornton, C. G. Thorp, J. M. Tod, James Warburton, J. B. Wilkinson, John Williamson, S. H. Wilson, E. A. Witchell, G. B. Wood, Peter Yates.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on August 10:

Cox, Roland Frederic, Twickenham.
Myddelton-Gavey, Edward H., Littlehampton.
Smith, James Edward, Hammersmith.
Thomas, Arthur William, Chelsea.
Treasure, William Beeson Crawford, Crewkerne.

The following gentleman also on the same day passed his Primary Professional Examination:—

Appleton, Harry, Charing-cross Hospital.
Grimmer, Charles G., St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

DIXON, M. J., M.D., M.R.C.P.—Physician to the Salford and Pendleton Royal Hospital.

SPICER, R. H. SCANES, B.Sc. Lond., M.R.C.S., L.S.A.—Resident Medical Officer to St. Mary's Hospital.

BIRTHS.

HARDWICK.—On August 13, at Pillar House, Needham Market, Suffolk, the wife of Frederick S. Hardwick, M.D., of a daughter.

HUTCHINSON.—On August 10, the wife of S. J. Hutchinson, M.R.C.S., etc., of 44, Brook-street, Grosvenor-square, and Brondesbury, N.W., of a son.

PHILLIPS.—On August 5, at Woodville, New Ferry Park, Cheshire, the wife of Edward T. M. Phillips, M.R.C.S., L.D.S., of a daughter.

RICE.—On August 8, at the Infirmary, Plumstead, the wife of George Rice, M.B., C.M., of a daughter.

SMITH.—On August 13, at 5, George-street, Hanover-square, the wife of Eustace Smith, M.D., F.R.C.P., of a son.

MARRIAGES.

BARNSTON—DENTON.—On August 9, at Bruera, Cheshire, Lieut.-Colonel Francis Barnston, son of Roger Harry Barnston, Esq., of Crewe-hill, Cheshire, to Mary, elder daughter of Tanat Wynne Denton, M.D., of Newbold, Cheshire.

BAISBANE—WATSON.—On August 10, at Colebrooke-row, James Brisbane, M.D., of 21, Park-road, Regent's park, to Mary Jane, eldest daughter of the late William Watson, Esq., of 30, Highbury-hill, N.

BROWN—HOLMAN.—On August 8, at Niton, Isle of Wight, George Samuel, son of George Brown, Esq., of 56, Finsbury-pavement, London, and Willingdon, Sussex, to Beatrice Mary, daughter of Charles Henry Holman, M.R.C.S., of Niton.

BURMESTER—LAWRENCE.—On August 10, at Wandsworth, John William Stanley, son of the late John William Barmester, Esq., of West-hill, Wandsworth, to Rose Guillonneau, daughter of James E. Lawrence, M.R.C.S., of Geraldine Lodge, Wandsworth.

DOCKRELL—OLDFIELD.—On August 9, at Kilmainham, Dublin, Morgan Dockrell, B.A., M.B., M.A.O. (Dub. Univ.), of Old Kent-road, London, to Emily, daughter of the late Alexander Oldfield, Esq., of Nottingham.

EDWARDS—MORRIS.—On August 10, at Spalding, Lincolnshire, Edward Arthur Edwards, of Horsham, Sussex, son of George Edwards, Esq., of the Standard Life Office, to Alice Maud Mary, daughter of Edwin Morris, M.D., F.R.C.S., of Spalding.

GRAHAM—PONDER.—On August 15, at Oakley-square, J. Campbell Graham, M.D., to Mary Jessie, second daughter of the late Stephen Ponder, Esq., of Canton, and Hampton, Middlesex.

HARRIS—SMITH.—On August 8, at Patterdale Church, Alfred Harris, M.B., C.M., of Dalston, to Grace Elizabeth, widow of the late C. E. Smith, M.D.

JEFFERY—BARBER.—On August 8, at Streatham, George Ernest Jeffery, barrister-at-law, of 2, New-square, Lincoln's-inn, son of G. A. Jeffery, M.D., of Trinity House, Eastbourne, to Mary Louisa, daughter of the late Frederick Barber, Esq., of Southfield Lodge, Streatham.

ROGERS—JONES.—On August 3, at Brentford, Edward Beauchamp, son of M. Rogers, Esq., J.P., Deputy Inspector-General of hospitals, to Eliza Amelia, youngest daughter of the Rev. Henry Jones.

DEATHS.

CHAVASSE, SAMUEL, M.R.C.S., late of Newhall-street, Birmingham, at 9, Duchess-road, Edgbaston, on August 13.

COOK, W. H., M.D., at 1, Abercrombie-villas, Hampstead, on August 2, aged 57.

GILES, RICHARD, M.D., late of Oxford, at Pendreath, Torquay, on August 8.

PENHALL, WILLIAM, B.A., late of Trinity College, Cambridge, and elder son of John Penhall, M.D., of St. Leonards-on-Sea, on August 4, aged 23.

TENNANT, WILLIAM D., M.R.C.S., at Lambert-road, Brixton, S.W., on August 11, aged 32.

WEBSTER, CECIL, M.R.C.S., of Bewdley, on August 8, aged 49.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. (*For particulars see Advertisement.*)

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary £100 per annum, with board and lodging. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Secretary on or before September 9. The election will take place on September 21.

EARLSWOOD ASYLUM FOR IDIOTS, REDHILL, SURREY.—Medical Superintendent. (*For particulars see Advertisement.*)

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary £90, with gas, coal, apartments, and attendance; also £10 added for attending inmates. Applications, stating qualifications, and testimonials to be sent to F. Browne, Hon. Secretary, not later than August 26.

MORPETH DISPENSARY.—House-Surgeon. Salary £130 per annum, with furnished house. Candidates must be doubly qualified and registered. Applications, with testimonials, to be sent to D. F. Wilson, Secretary, from whom further particulars may be had, on or before September 4.

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Assistant Dental Surgeon. Candidates must be Licentiates of Dental Surgery. Applications to be sent in on or before August 22.

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—House-Surgeon. Salary £50 per annum. Hours of attendance from nine to two. Candidates must be Licentiates of Dental Surgery. Applications to be sent in on or before August 22.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, LIVERPOOL.—Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be duly qualified. Applications, with testimonials, to be sent to Robert Calder, Secretary, 4, Commercial-court, 17, Water-street, Liverpool, from whom all further information can be obtained, on or before September 1.

SALISBURY INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, lodging, and washing. Candidates must either be Fellows or Members of one of the Colleges of Surgeons of Great Britain or Ireland, and be qualified to practise medicine by some recognised body in the United Kingdom of Great Britain or Ireland, and they must be unmarried. Applications, with testimonials and certificates of qualification, to be sent to the Secretary on or before August 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Dursley Union.—Mr. F. J. Joynes has resigned the Third District: area 6410; population 2157; salary £80 per annum.

Ledbury Union.—The Bosbury District is vacant by the death of Mr. William Griffin: area 18,805; population 4420; salary £70 per annum.

Rugby Union.—Mr. A. F. Wilson has resigned the Dunchurch District: area 14,454; population 2370; salary £40 per annum.

APPOINTMENTS.

Bideford Union.—Frederick Pratt, M.R.C.S. Eng., L.S.A., to the Northam District.

Dudley Union.—Thomas Vincent De Denne, M.R.C.S. Eng., L.R.C.P. Edin., to the Second District.

Leominster Union.—Octavius Edwards, L.R.C.P. Lond., M.R.C.S. Eng., to the Leominster District and the Workhouse.

City of London Union.—William Gem, L.K. & Q.C.P. and L.R.C.S. Ire., to be Assistant Medical Officer and Dispenser at the Infirmary.

Romford Union.—Charles Lennox Cunningham, M.R.C.S. and L.M. Edin., L.S.A., to the First District.

St. Germans Union.—Henry Boyle Runnalls, M.R.C.S., L.S.A., to the Fifth District.

Wellington (Salop) Union.—George Hollies, L.R.C.P. and L.R.C.S. Edin., L.S.A. Lond., to the Southern District.

Windsor Union.—Alexander Gairdner Lacy, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Sunninghill District.

ALLOPATHY A MISNOMER.—The *Philadelphia Med. News* (July 15), commenting with approval on the resolution carried at the last meeting of the American Medical Association, protesting against the use of the word "allopathists," continues:—"We hold to no exclusive dogma, save that it is our duty to cure disease as quickly, and as safely, and as happily as possible. We maintain no other position than that of truth scientifically ascertained. We resent any other title than that of 'physician.' The profession knows no rules by which to administer any remedy but those of experience, or induction from physiological and pathological research. If a remedy has been found to be useful in certain given conditions in one man, it will probably be useful in another; and after trial we seek, either in the man or the medicine, the reasons for its success or failure, and act accordingly. If by investigation on man or the lower animals it is ascertained that a remedy produces certain effects, we may infer that it will be suited to combat disease when we wish to produce similar effects. Even here experience must be the absolute and final arbiter. We are the true eclectics. We give any and all remedies in any and all doses. We are at liberty to use aconite or mercury, hepar sulphuris or quinia—the only proviso is that it be on the avowed basis of experience or research, and not that like cures like, or that the smaller the dose the greater the effect. The time has come for the whole profession to reject the misnomer so put upon us, and to proclaim its use as an error and a gross offence—all the more offensive because it is erroneous."

APPOINTMENTS FOR THE WEEK.

August 19. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

21. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

23. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

25. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 12, 1882.

BIRTHS.

Births of Boys, 1214; Girls, 1090; Total, 2304.
Corrected weekly average in the 10 years 1872-81, 2535·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	773	644	1432
Weekly average of the ten years 1872-81, corrected to increased population ...	869·4	786·6	1656·0
Deaths of people aged 80 and upwards ...	...	...	41

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	6	3	10	5	...	1	1	14
North ...	905947	4	3	8	3	16	...	5	1	35
Central ...	282238	...	3	2	2	1	...	2	...	13
East	692738	...	3	14	2	9	...	2	...	40
South	1265927	...	10	12	...	13	...	...	...	45
Total	3816483	4	25	39	18	44	...	11	2	147

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29·979 in.
Mean temperature ...	61·0
Highest point of thermometer	81·0
Lowest point of thermometer	46·7°
Mean dew-point temperature	54·5°
General direction of wind ...	N.E. & E.
Whole amount of rain in the week	0·01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Aug. 12, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Aug. 12.	Deaths Registered during the week ending Aug. 12.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall In Inches.	In Centimetres.
London	3893272	2304	1432	19·0	81·0	46·7	61·0	16·11	0·01	0·03
Brighton	109595	54	44	21·0	77·0	50·0	59·9	15·50	0·03	0·08
Portsmouth ...	129916	86	50	20·1	...	...	...	...	...	...
Norwich	88821	38	35	20·6	...	...	...	...	...	...
Plymouth	74449	53	22	15·4	75·8	51·0	60·7	15·95	0·00	0·00
Bristol	210134	114	74	18·4	77·4	48·5	59·2	15·11	0·00	0·00
Wolverhampton .	76756	44	27	18·4	74·3	48·8	58·7	14·83	0·01	0·03
Birmingham ...	408532	256	178	22·7	...	...	...	...	...	...
Leicester	126275	91	58	21·0	75·5	42·0	59·2	15·11	0·00	0·00
Nottingham ...	193573	140	93	25·1	75·7	43·0	59·5	15·28	0·01	0·03
Derby	83587	51	21	13·1	...	...	...	...	...	...
Birkenhead ...	86582	58	35	21·1	...	...	...	...	...	...
Liverpool	560377	376	256	23·8	74·1	51·6	59·6	15·34	0·04	0·10
Bolton	106767	68	61	29·8	73·7	49·4	59·2	15·11	0·00	0·00
Manchester ...	340211	252	155	23·8	...	...	...	...	...	...
Salford	184004	102	87	24·7	...	...	...	...	...	...
Oldham	115572	75	49	22·1	...	...	...	...	...	...
Blackburn	106460	73	51	25·0	...	...	...	...	...	...
Preston	97656	75	37	19·8	...	...	...	...	...	...
Huddersfield ...	83118	53	44	27·5	...	...	...	...	...	...
Halifax	74713	44	17	11·9	...	...	...	...	...	...
Bradford	200158	154	99	25·8	77·4	51·2	62·1	16·73	0·01	0·03
Leeds	315998	201	128	21·1	74·0	52·0	61·1	16·17	0·00	0·00
Sheffield	290516	190	119	21·4	75·0	48·0	59·5	15·28	0·0[illegible]	0·0[illegible]
Hull	158814	100	80	26·3	79·0	47·0	61·5	16·39	0·02	0·05
Sunderland ...	119065	82	72	31·6	86·0	49·0	65·2	18·44	0·00	0·00
Newcastle	147626	96	81	28·6	...	...	...	...	...	...
Cardiff	86724	58	35	21·1	...	...	...	...	...	...
For 28 towns ..	8169571	5288	3440	21·1	86·0	42·0	60·5	15·84	0·01	0·03
Edinburgh	232140	125	71	15·9	81·0	44·6	59·0	15·00	0·00	0·00
Glasgow	511048	388	209	21·2	76·5	48·0	64·0	17·78	0·00	0·00
Dublin	318293	179	157	23·5	74·1	43·9	60·0	15·56	0·30	0·76

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·979 in. The highest reading was 30·09 in. on Thursday morning, and the lowest 29·72 in. at the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mortality of Black and White Troops.—According to our Army Medical Department statistics a striking difference is shown between the state of health of black and white troops. By these returns the black regiments appear to suffer vastly more than their white comrades from the ill-effects of tropical climates. Thus, on the West Indies command, while the mortality among white troops last year was slightly over 8½ per thousand, the deaths among the black troops were more than 19 per thousand.

Midwifery Cases, City of London Union.—Touching this subject, letters were read at the last meeting of the Guardians from Drs. Thompson, Read, and Smith, asking to be relieved from attending midwifery cases; and the matter is to be considered and reported upon by the Out-Relief Committee.

Electricity Dangers.—It is reported that two men, in their endeavours to enter the Gardens of the Tuileries during a recent fête and display of fireworks, climbed over the fences, and in doing so laid hold of some wires forming part of the system of public lighting by electricity. Both received instantly a shock which rendered them insensible, and all efforts to restore them entirely failed.

Civil-List Pensions.—In an official return giving a list of all pensions granted during the year ended June 20 last, appear the following pensions:—To Dr. W. A. Greenhill, in consideration of his services to medical literature and sanitary improvement, £50 per annum. To Professor T. W. Jones, in recognition of his services to medical science, £150 per annum.

Non-Combatants.—A medical officer writes to a contemporary:—"It is the fashion to speak of medical officers as 'non-combatants.' In the forthcoming expedition to Egypt every battalion will be accompanied into action by a medical officer, who will render first aid to its wounded. I have just paid to my life insurance office extra war premium 'at the rate agreed upon by all the offices in consultation for combatant officers, among whom medical officers are included.'"

Sheerness.—Official returns show that the average death-rate of Sheerness for the past six years has been 15½ to the thousand, but this includes accidents in the dockyard and casualties in the harbour, which add considerably to the rate of mortality.

A Suburban Resident.—Whether brick-making or brick-burning is a nuisance or not depends upon circumstances, nor is there, so far as we know, any general rule laid down as to distance from occupied houses. Injunctions have been granted in cases in which the burning took place within certain alleged distances from habitations, and it has been clearly established that the fumes from a brick-kiln reaching dwelling-houses are a nuisance where they involve a material injury to property or personal comfort.

A Heavy Sentence.—A beerhouse-keeper at Manchester has been fined by the borough magistrate £100, or three months' imprisonment, and disqualified from holding a licence for five years, for selling beer during prohibited hours on Sunday, the 30th ult.

Chinese in San Francisco.—In some remarks on the excitement which still prevails in this city concerning the Chinese labourers' question, a correspondent observes:—"The Chinaman washes clothes, cooks, or grows vegetables, contributing to the health, comfort, and efficiency of innumerable white families, who declare that without Chinamen they could not live. Travellers in outlying districts of California have long learned to regard the Chinaman as the barometer of civilisation. Wherever that smooth, imperturbable yellow face is seen, there you are certain to find digestible food decently served."

C. W. F., Lambeth.—The Domestic Exhibition, which will include scientific apparatus and domestic appliances, is fixed to be held at the Alexandra Palace during the forthcoming autumn.

An Ancient Sanitary Act.—The first acknowledged Sanitary Act in the statute-book was, in point of fact, a Rivers Pollution Bill; for in the year 1388 an Act was passed, imposing the very high penalty (considering the then value of money) of £20 upon persons casting animal filth and refuse into rivers.

Fish-Supply Competition.—The London Fish Company propose to introduce a system of fish-distribution which shall be entirely self-supporting. The necessary details of this new branch of their business are expected to be completed in a few weeks, when they will be in a position to bring supplies of fish to the consumers in all parts of the kingdom at a marked reduction upon the prices now paid by them.

Tunbridge Wells.—Dr. Stamford, the Medical Officer of Health for Tunbridge Wells, reports that the deaths for the last quarter, ending June 30, were eighty-eight. The annual death-rate was 14·28 per 1000. Not a single death occurred during the quarter, and only one the previous quarter, caused by any of the zymotic diseases attributable to defective drainage or water-supply.

Inquirer.—The relative number of early marriages varies greatly in different parts of the country. Some counties are remarkable for maintaining a high proportion of early marriages—some as regards males, and others in respect of females.

Cambrian.—Dr. Barry, from the Local Government Board, who has investigated the cause of the outbreak of typhoid fever at Bangor, supports the theory of Dr. Rees, the district Medical Officer of Health, that the outbreak originated with the water-supply, which had been polluted at a point above the intake. He also condemned the system of drainage, which is very imperfect.

The New Coroner, Essex.—Mr. C. C. Lewis, son of the late coroner, who has acted as deputy for sixteen years, has been elected to fill the vacancy. There was no opposition. The salary is £510 per annum, but out of this travelling and personal expenses have to be paid.

Cloude, Clapton.—An arrangement has been concluded between the Metropolitan Asylums Board and the freeholder of the London-fields Small-pox Ambulance Depôt, who had obtained an injunction against the Board. The Board is to retain the station until May next, when, in accordance with the requirement of the Court, it will be given up.

Open Spaces.—At the last meeting of the Metropolitan Board of Works it was decided to reply to the memorial of the ratepayers and inhabitants of Hackney and Islington, praying the Board to preserve Kingsland Green as an open space, that the Board are unable to depart from their previous resolution of declining to take action in the matter.

N. W. P., Pimlico.—In the opinion of Mr. Bailey Denton (who has, at the request of the proprietors of our contemporary, the *Lancet*, made an examination of the Brighton sewerage), the existing evil is caused by the insufficient power of discharge of the sewage into the sea. The foul matter remains for an undue length of time in the drain, or at the points of outfall into the ocean, and after a heavy day's rain the accumulations of sewage and moisture fill up the empty space which is left, and force the impure air through the traps into the streets and houses. Mr. Bailey Denton suggests a remedy for this defect.

Convalescent Home, Broadstairs.—A few days since, Lord Nelson laid the foundation-stone of the first hall of this Home. It is in connexion with the St. Augustine Home at Kilburn, and intended to accommodate 600 children. The estimated cost is £50,000.

Changing a Profession.—A painter who had turned physician was asked why he had quitted his profession. "Because," he replied, "my former business exhibited my mistakes in too glaring a manner; therefore I have now chosen one in which they will be buried."

A National Provident Insurance.—The Colonial Treasurer of New Zealand, in his financial statement to the House of Representatives on June 16, announced the intention of the Government to introduce a measure for establishing in the colony a national compulsory insurance against destitution in sickness and old age.

Progress of Medical Science.—The accused was the wife of the complainant, and the charge was that she had struck him across the nose with a piece of wood. Magistrate (to prisoner): Did you have any quarrel with your husband? Prisoner: No, your Honour. Magistrate: Did he ever scold or abuse you? Prisoner: No, your Honour. Magistrate: Why, then, did you commit the assault upon him? Prisoner: Because I heard the doctor say he ought to be bled.

Infant Mortality, Germany.—Investigations as to infant mortality in Germany show that of 100 children nursed by their mothers only 18·2 died during the first year, while of those brought up in "institutions" as many as 80 per cent. succumbed to the treatment. Of those put out to wet-nurse 29·3 died, and of those artificially fed 60 per cent. Eighteen home-reared, as against eighty brought up in institutions, is a striking contrast, and worthy of notice.

A New Title.—Professor Owen has suggested, in a little volume which he has just published, that his opponents, the enemies of vivisection, should adopt the title of "Bestiariana," and he confers on the Victoria-street Society the designation of "The Bestiarian Society." The word is not intended in any degree as a term of reprobation, but he suggests it as one desirous of helping the anti-vivisectionists in their aims "so far as they do not harm the human species of animals."

Adulteration and the Custom House.—The laboratory established ten years ago under the Sale of Food Act at the Custom House, for the purpose of testing the quality of dutiable articles of import of a doubtful character, has been carried on with considerable activity, and it is satisfactory to find that the quantities of articles of food condemned form but a small proportion of those tested. Out of 1242 samples sent in to the Commissioners' analysts in the course of last year, only sixteen were declared unfit for human food. The goods which were, in consequence, absolutely refused admittance into this country were varieties of tea or pretended tea.

Utilising Orange-peel.—A gentleman in Manchester claims to have succeeded in applying orange-peel to a very useful purpose. Orange-peel dried in or on the oven until all the moisture has been expelled becomes readily inflammable, and serves admirably either for lighting fires or for resuscitating them when they have nearly gone out. Thoroughly dried orange-peel will keep for a very long time, and might be collected while the fruit is in season, and stored for winter use.

An Improvement.—The last quarterly report of the Analyst to the Plumstead Board showed that he had analysed thirty-five samples, and found them all genuine.

COMMUNICATIONS have been received from—

Mr. F. H. Bartlett, Birmingham; Dr. Ransome; Rev. James Wellea, Hastings; The Registrar of the University of London; The Registrar of the Apothecaries' Hall, London; Dr. De Gorrequer Griffith, London; Dr. Cockle, London; Dr. Littlejohn, Edinburgh; Lieut.-Colonel Duncan, London; Dr. Millioan, Constantinople; Mr. Hussey, Oxford; Mr. J. Chatto, London; Dr P. McBaide, Edinburgh; The Registrar-General, Edinburgh; Mr. James Limont, Newcastle; Dr. S. Baudry, Lille; The Editor of the "New York Medical Journal," New York; Dr. E. G. Figg, Williamstown, South Australia; Dr. C. P. Coombs, Castle Cary; Mr. F. F. Schacht, London; The Secretary of the Sanitary Institute of Great Britain, London.

BOOKS, ETC., RECEIVED—

Quatrième Congrès International d'Hygiène et de Démographie à Genève du 4 au 9 Septembre, 1882—Annual Report of the Parish of St. Mary Abbott's, Kensington, for the Year 1881—An Ephemeris of Materia Medica, Pharmacy, etc., for July, 1882—Etiology of Tubercle, by Henry MacCormac, M.D.—The Medical History of Worcestershire, by A. H. F. Cameron—Manual of Gynæcology, by D. B. Hart, M.D., F.R.C.P., and A. H. Barbour, M.A., B.Sc., M.B.—Army Medical Department Report for the Year 1880—The Rational Treatment of Anterior and Posterior Displacements of the Uterus, by Arthur V. Macan, B.A., M.B., etc.—Report on the Borough of Newcastle-upon-Tyne for 1881—The Concepts and Theories of Modern Physics, by J. B. Stallo—Report on the Census of Berar for 1881—On the Climate and Fevers of India, by Sir Joseph Fayrer, K.C.S.I., LL.D., M.D., F.R.S.—Report on the Sanitary Condition of the Parish of St. Mary, Islington, for 1881—Report on the London Water Supply for the Month ending July 31, 1882

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Medical News—Indian Medical Gazette—Jewish Chronicle—Boston Journal of Chemistry, etc.—Philadelphia Medical Times—Physician and Surgeon—North Carolina Medical Journal—Therapeutic Gazette—Midland Miscellany—La Independencia Medica—Archives of Medicine—Maryland Medical Journal—New York Medical Journal—Journal of the Vigilance Association—Australian Medical Journal—Ciencias Medicas—Canadian Journal of Medical Science—Revue de Médecine—Revue de Chirurgie—Journal of the British Dental Association—Louisville, Medical News.

The Poisoning by Hot Cross-Buns at Inverness.—The report of the analyst employed by the Crown in the above case has been sent in to the Crown Office. No arsenic or other metallic poison was found in the buns nor in any of the ingredients from which they were made. There was found, however, an alkaloid possessing irritating qualities, but its exact nature has not been determined. It appears from the evidence collected by the authorities that loaves and buns were both made from one lot of dough, spice being added to the latter. The loaves turned out perfectly good, the buns bad. The natural inference is that the poison, whatever its nature, was in the spice.—*The Analyst*, August.

Tonga in Neuralgia.—After referring to the success of Prof. Ringer's trials with this substance, especially in neuralgia of the cranial nerves, Dr. Wallace, writing in the *New York Med. Record*, July 22, states that within the last five months he has used it in a number of cases of cephalalgia, and in most of them with uniform good results. "My experience with tonga has been remarkably good, and I think this drug, so highly useful in cases of neuralgia, and one which can be given without producing toxic effects (a claim that cannot be advanced for other medicines heretofore used in this complaint), deserves a place among our successful new remedies.

Lead-Paralysis from Contact.—A man aged twenty-eight, very robust, came into M. Hérard's service at the Hotel-Dieu on account of a paralysis of the forearm. When in the army, whether in Algiers or Senegal, he always enjoyed the best of health in localities where numbers were dying around him—always having taken care to wear double flannels in the hottest countries. On leaving the army he became a carter for the transport of merchandise, and three weeks before admission had been transporting white-lead. While loading his cart, one of the barrels burst, and he employed his left hand in endeavouring to save as much of the lead as he could. The hand and forearm were thus covered with lead. The next morning the extensors of the arm were paralysed. It was a purely local paralysis, and neither colic nor any other sign of lead-poisoning was present. He was treated by electricity.—*Gaz. des Hop.*, July 30.

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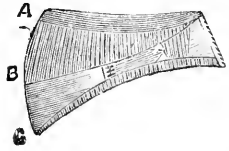

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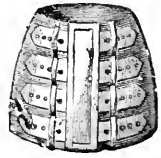

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FIFTIETH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,

HELD IN WORCESTER, AUGUST 8, 9, 10, AND 11, 1882.

ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF ANATOMY AND PHYSIOLOGY.

By GEORGE M. HUMPHRY, M.D., F.R.S.,
Professor of Anatomy in the University of Cambridge; Surgeon to Addenbrooke's Hospital; President of the Section.

IT is no small pleasure, as well as honour, to me, at this our Jubilee meeting, to occupy the chair in a Section where the twin sisters, Anatomy and Physiology, which have been diverging more and more during the fifty years of the existence of the Association, are once again yoked together at the suggestion of our President. This is the first occasion on which anatomy has thus been recognised by the Association. We may congratulate ourselves on the appreciation of it thus shown by a body the chief object of which is to promote the practical interests of the profession, and not less at the manner in which the call has been responded to by labourers in various parts of the kingdom. Our programme gives reason to hope that the time of the Section will be fully and profitably employed.

The divergence of anatomy and physiology from one another, to which I have referred, may seem to be unnatural, and in some respects to be regretted; and there may be a feeling, though it is not a well-grounded one, that it implies a disjunction of the investigation of structure from that of function, whereas we know that these two should ever proceed together, and be supplementary to one another. But the separation of anatomy and physiology, in the way in which it is taking place, if an evil, is a necessary evil shared by them in common with other branches of science which have a similar relationship. As the several members of the great family of science grow older they grow larger, fall away from one another, occupy independent ground and independent labourers, and form centres from which new individualities will, in their turn, bud off. In the present instance the separation is, in the main, due to, and is the necessary and natural result of, the development as well as growth of the younger of the two sisters, which, during the last half-century, has been not only unceasingly, but in geometrical ratio expanding. It deals with, and is felt by some rather greedily to absorb, minute structure and the associated delicate processes. It leaves to anatomy the investigation of the coarser structures of the body—the investigation, that is, which can be carried out by the unaided eye. It is clear that such investigation, so far at least as the human body is concerned, must after so many centuries of labour, first and chiefly in Italy, and subsequently in France, Germany, and England, be nearly complete, and can therefore scarcely admit of much further extension. Viewed, indeed, in this way, it has almost ceased to be a progressive science, and must lack the interest which attaches to advance and new discovery. True, it remains, and always must do so, an important, an essential, a fundamental feature of medical knowledge and of medical education. Upon the good, clear, ready knowledge of it, more than upon that of any other branch of his science, depends the power of the medical man, more particularly of the surgeon, to do definite positive good—to form, that is, distinct diagnosis, and to adopt decided treatment; and the want of interest which anatomy suffers from not being a progressive science is more than compensated for by its practical importance. Here I would remark that I think this, its paramount and unassailable *locus standi*, has of late been somewhat lost sight of in its teaching. The books on anatomy, whether manuals or more formal treatises, commonly contain little or no allusion to the practical import of the several structures and their disposition, and the methods of description have usually no relation to this point. All the features are placed too much on the same level, without light and shade, and the whole landscape proves to be proportionately dull and uninviting. This is also a result—I fear an inevitable result—of that increasing subdivision of labour which causes the investigation and the teaching of anatomy to devolve more and more upon the pure anatomist.

Moreover, the anatomist does not seem sufficiently alive to the value of that kind of physiological knowledge—the knowledge of mechanical adaptation, of morphological relation, and of developmental phenomena—which is the proper associate of anatomy, which appertains to it in the same way and in the same right as the study of process appertains to the study of minute structure, which gives to it the claim to a scientific position, upon which its quality for mental training not a little depends, and which throws a halo of colour and freshness and cheerful glow over it. Too often the bare naked facts are marshalled in solemn dulness one after another, and are crammed down the reluctant throat of the student, without spice or flavour of any kind, not to be digested, but to be gulped again, much as they went down, under the examination squeeze.

Doubtless the careful study of anatomy, regarded merely as entailing the acquisition of a certain number of facts, as acquiring a cognisance of the structure and relations of the several parts of the body, is a good mental exercise, inasmuch as it cultivates, among other qualities, those of attention, accuracy, and painstaking, which are the very foundation-stones of the educational building. I question, indeed, whether any other of our studies does this quite so well. Longer experience impresses me more with this; and I regard anatomy not only as the veritable basis of medical knowledge, but as the veritable basis also of medical education; and this apart from the manipulating skill engendered in the work of dissecting, which is a matter of some importance. I by no means therefore wish it to be thought that I depreciate the pure, simple study of anatomy, especially if it be pure in the higher sense of that word; and no small interest attaches to the mere unveiling of the mechanism of the human body. We remember the pleasure we all had in displaying for ourselves, and seeing exposed to view, the several parts which make up a limb or an organ; and the teacher has the opportunity of living that pleasurable time over again in witnessing it as vivid as ever among the present race of students. The higher their education and the better their previous mental training, the more cordially and systematically will they pursue the study; and it is no small satisfaction to me to have the opportunity of seeing the senior wrangler and the senior classic humbly and cheerfully bending in the dissecting-room, and applying the earnestness and ability which have gained them their high positions to the elucidation and appreciation of the disclosures which their own scalpels and forceps can make.

Thus, as I grow older, I grow stronger in my respect for anatomy *per se*; but I grow stronger still in my estimation of its capabilities to excite interest, to nurture inquiry, and to strengthen the mental faculties, by virtue of the practical and physiological expositions which are its legitimate accompaniments. I feel that its educational as well as its practical value would be vastly increased, and its interest heightened, if the relations of form and structure to disease and accident and treatment were more fully pointed out, if the purposes served by the conformation and disposition of the several parts were more thoroughly worked at and detailed, and if the various morphological bearings were more carefully elucidated. In these directions there is ample scope for investigation, and deep mines are to be found of interesting material for study and teaching, which will well repay the thoughtful and earnest labourer. A careful and accurate description of the form of the tibia, for instance, may be, and is, good in itself, and in its way satisfactory and improving; but an account which associated that form with the liabilities to accident and disease, with the various distinctive peculiarities of the human form and gait, with the laws of growth and development, would be far more improving and impressive, because more instructive and suggestive. The features in the anatomy of the aorta which render it liable to disease and to aneurism, those of the knee-joint which induce knock-knee, of the fingers which cause them to slant outwards in rheumatism, of the ball of the great-toe which predispose to gout, of the wrist which prevent dislocation, and of the shoulder which entail liability to dislocation—and many other instances of a similar kind will suggest themselves,—

would, if properly dwelt on, shed the interest, the surpassing interest, of practical value over the anatomy of the several parts, and would impart a healthy reflective tone to the learner's, I might add also to the teacher's, mind.

It must be fully admitted that many questions bearing upon development, morphology, and anthropology, which appertain to, and grow out of, the subject of human anatomy, which add much to its scientific interest and its educational value, and which fitly form part of a course of instruction at a university, can scarcely be comprised within the range of the teaching of the ordinary medical student, in whose case much—too much—has now to be compressed within a given short time. Still, the intelligent curiosity of such a student will sometimes require to be satisfied, and his interest may be roused by reference to these questions. He looks at the plantaris muscle in the leg. He wonders what need there is for it, and how it comes to be there. He sees that any slight assistance it may render to the great calf-muscle is scarcely a sufficient pretext for its existence in a separate form; and he finds relief and pleasure in learning that this little muscle is an *attaché* to the short flexor of the toes; that its severance has been caused by that projection of the heel-bone which is one of the attributes of the erect posture; and that, when it is continuous with the foot-muscle, as is the case in most of the lower animals, it is clearly seen to be the homologue of the flexor digitorum manus. Possibly he may still indulge in the luxury of speculating as to the law of evolution, by virtue of which it has maintained its individuality through so many ages of comparative uselessness. He looks with vastly increased interest upon the construction of the great toe when he learns by what slight modifications from the lower animal form that solidarity has been given to the human foot, upon which, more than upon any other single speciality in his anatomy, the pre-eminence of man is due; and he views with respect the flexor and the middle extensor of the thumb, upon finding that the complete segmentation or separation of these muscles from their surroundings is to assist in correlating the free mobility of the human pollex with the fixity of the human hallux. He is agreeably surprised to find that the dry bones in the open valley of the class-room are made to live and stand upon their feet, an exceeding great army of instruction and interest when breathed upon by the teacher, and clothed by him with the warm flesh and blood of development, morphology, mechanical purpose, and practical bearing.

The high-and-dry style of anatomy—and the remark applies no less to other educational subjects, general as well as special—has grown partly, perhaps chiefly, as a corollary to the higher and drier character of the examinations, and to the difficulty which is experienced in carrying the examination test beyond the range of simple facts—a difficulty which all who have been engaged in this work must admit, and which can be overcome only by a considerable extension of the time occupied in the examinations. Seeing how important, as directors of education, examinations have become, and must be, I make no doubt that some different system of conducting them, which will give greater stimulus to the intelligent appreciation of facts, and will cultivate the reasoning as well as the acquiring faculties, must, ere long, be attempted. I look upon the attainment of that end as one of the great educational desiderata of our time—so great and so important, that it can be worked out only by slow degrees, and as the result of much deliberation and much effort.

I have said enough to show my hope and my confidence that the anatomy of the coarser structures, with its attendant physiology, will not be allowed to pass into the category of subjects, dead and barren as regards scientific character; but that it will be more and more cultivated, not merely for its practical value, but as a repertorium of scientific interest.

With regard to the special subject of physiology, which has relation to minute structure, and more particularly to composition and processes—that is, the *changes*, chemical and physical—of structure, we may be sure that it will never cease to command interest and to engross a large share of attention. It will always be able well to take care of itself. It is essentially and rapidly progressive, and it is illimitable. Its investigations lead in those directions in which there must ever be a near border-land of the seemingly mysterious and inscrutable to fascinate and tempt the inquirer on. It dives into the deepest recesses of nature's works. It brings to its aid, and gives the greatest range to, chemistry, physics, and mechanics, and advances with them, its progress being checked mainly by their imperfections. It profits by the newest refinements of optical and other instrumental apparatus. Its searchings cannot be confined to dead matter. The very essence of the science demands that the processes, "living as they rise," should be submitted to its scrutiny. It is quite certain that this must be done, and will be done, largely, whether in England or abroad, whether in this generation or the next, whether under Parliamentary control or under trust in the good feeling and conscience of educated men.

In this point we are all deeply interested, not merely as physiologists, but as members of a practical profession, and as members of the human family—I might say, as members of the animal kingdom: for the highest and most important flights of physiology are those which carry it into the region of pathology, and which demonstrate the continuity between the healthy and the morbid processes, which indicate the transition of the one into the other.

In illustration of this, I will refer only to a few points.

The greatest accession to knowledge in medical science which has been made during the era of this Association—one, indeed, of the greatest ever made—is that included under the term "cell-development," which was worked out, in the first instance, by Schleiden and Schwann. This has caused a recasting of all our ideas of nutrition, including development and growth; and has, at the same time, given an entirely new ground to the science of pathology: for it has shown that the agents which are the media of nutrition are the media also of those modifications of nutrition which we call disease. It has taught us that a malignant cancer-growth is probably the result of a perversion of, perhaps intrinsically only a slight departure from, the ordinary and normal processes of cell-growth in the natural tissues; and the suggestion brings with it a ray of hope that these deviations may one day be checked or prevented, and that this most terrible scourge of humanity may be amenable to treatment. Associated with this great theory are the investigations respecting the movements, the migration, and the absorbing properties of leucocytes, which, as well as the investigations respecting the influence of the medulla oblongata and other ganglionic centres, great and small, upon the action of the heart and bloodvessels, and the investigations respecting the formation of sugar and albumen and their modifications, have a very direct bearing upon various pathological processes, and upon some of the most common and important diseases, and must lead to the better treatment, as well as the clearer knowledge of those diseases.

The consciousness of the close bonds which unite physiology—practical physiology more especially—with medicine; and of the benefits which the whole history of medicine shows to have accrued to it from the cultivation of physiology, as well as the prospect of far greater benefits which are certain to result from it, if it be allowed free scope—the gratitude, in short, for favours to come, no less than for those already received—has induced many of the eminent men of our profession to form an Association for the Advancement of Medicine by Research. It is conceived in no hostile spirit to this Association. I am glad to see that it includes many of our members; and I trust that the two associations will work on together, and benefit each other in their co-operation for the great purpose of advancing the science and practice of medicine.

I cannot conclude without adverting to the loss, the terrible loss, which biological science, the world at large, and the University of Cambridge in particular, have sustained by the recent untimely death of my colleague, the Professor of Morphology. I doubt, indeed, whether we could have sustained any other loss of this kind so severe and so irreparable. If at the early age of thirty his high intellectual gifts, his great powers of observation, of consecutive inquiry, and of philosophical deduction, as evinced by his researches in embryology and morphology, had gained him a reputation second to none in Europe, what could we not have hoped from the future that might have been expected to be before him, devoting himself as he was, in an earnest and honest spirit, in simple unabating love, to the unfolding and the teaching of the laws of animal life? But, further, the name of Frank Maitland Balfour stirs the warmest feelings in those who lived and worked with him and knew him best. By all of them he will be remembered as representing, in birth, in education, and in character, a noble example of the best

chivalry of Britain. They will recall his fine, upright, elastic youthful frame, with open face and beaming eye, as typifying the keenness and strength of his intelligence, his highmindedness, and the geniality and sincerity of his nature. They will feel that the words of the beautiful anthem sung in the chapel of Trinity College on Saturday last, in the presence of all the resident members of the University, while his body was being committed to the ground at his family home in Scotland, were singularly applicable to him.

> "When the ear heard him, then it blessed him;
> And when the eye saw him, it gave witness to him."

Pure in thought and pure in work, he laboured simply to know and teach the truth. Dignified, yet simple and utterly unassuming in manner, liberal in purse, wise in counsel, and firm in opinion, but gentle and full of kindness, he had the respect and admiration of pupils and colleagues. The true gentleman, he was a power for good among us all. With the tempting offers of Professorships at Edinburgh and at Oxford dangled before his eyes, he proved his good feeling by a faithful adherence to his *Alma Mater*, bound to it by the associations of early training, by affection to Trinity College (which showed a prophetic appreciation of him by electing him a Fellow, the first elected for Natural Science), and held by strong attachment to the circle of friends and pupils who loved and were proud of him, and who deeply lament his loss. The Royal Society had awarded him its medal, and placed him upon its Council. Glasgow had given him its honorary degree. Cambridge had instituted a new professorial chair, and seated him in it, and is even now completing the laboratory which was destined for him, and in which it was anticipated that a long career of sound research and teaching would bring fresh reputation to him, and shed fresh lustre on the University. Alas! the golden bowl is broken, and with it many hearts and many hopes are scattered.

ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association, held in Worcester, 1882.

By AUGUSTIN PRICHARD, F.R.C.S.,
Consulting Surgeon to Bristol Royal Infirmary; President of the Section.

A RETROSPECTIVE VIEW.

My principal duty, whilst occupying this chair, will be to listen to the papers which I am very glad to see have been promised in good numbers, and to learn from them, and from the discussions which we are to hold upon one or two very important subjects, all the newest and best development of our art.

But I must, first of all, record my thanks to the Council of our Society for selecting me, on this interesting occasion of our Jubilee meeting, to the important post which I now hold, of President of the Surgical Section—a selection no doubt suggested by the number of years I have been a member of the surgical branch of our profession, and, I may add, of this Association; for in the year in which it attained its majority—viz., 1853—I had the honour of reading the Address in Surgery.

Now, in those old times the various addresses were called, and were supposed to be, retrospective, giving accounts of the scientific progress in the previous year of the several branches of professional work; but, in consequence of the periodical publication of "half-yearly abstracts" and "retrospects," the custom was changed, and the orators chose their own subjects, upon which they could have the rare comfort of speaking in an authoritative tone and *ex cathedrâ*.

And on an occasion like the present, the fiftieth birthday of our old Provincial Medical Association (to call it by its original title), to resist the temptation of looking back towards our far past is quite impossible, and, if we can rescue some material of value which is in danger of premature burial, the retrospect will be profitable also. It is not my intention to give an account of surgical changes and progress in the last fifty years; such an attempt would occupy all our time to little advantage, and I am not the surgical orator of the year; but I am bound to say a few words at the beginning of our sectional work, so as practically to introduce myself in my new position to my surgical colleagues; and as at this meeting many besides myself will find themselves turning round and taking a view of our past surgical life, I shall venture to touch on one or two objects in the far distant landscape.

In the period to which I am alluding, when I began my professional work by the usual five years' apprenticeship, there were no anæsthetics, no antiseptics, no clinical thermometer, no ophthalmoscope, none of the marvellous and invaluable revelations of the microscope; even the stethoscope itself was young, for Louis was at work in Paris at his investigations into the diseases of the chest in those early days of auscultation. It was but a very few years after the passing of the Anatomy Act, and although I never took any personal part in the proceedings, yet exciting stories in abundance were rife with reference to the adequate supply for the dissecting-room. An uncle of mine, a very promising young man, died of disease of the chest, the effects of cold caught by being locked up with a fellow-student half the night in a damp cell, in his wet clothes, having been caught whilst out on an expedition such as I refer to. These events were long ago, it is true; but we can hardly sufficiently admire the zeal, born of necessity, which took these young fellows out, after the work and amusements of the day were over, at the smallest hours of the morning, dressed as labourers, and armed with a lantern and shovel and pickaxe, to some dark churchyard, there to dig open the newly filled grave, get out the body, and then drive it home in their gig before the town was astir. A late colleague of mine, who taught anatomy in Bristol under these difficulties, in what some of you may consider prehistoric times, has before now shown me a heavy bunch of huge keys, all ticketed, which were duplicates that unlocked all the churchyards of Bristol and its neighbourhood. Some few of the stories connected with these events have been published from time to time—in Sir Astley Cooper's life, for example; but there are members of our profession still living who shared in these dangers and difficulties, and it would be well worth while if some one would collect some authentic accounts of these doings before the whole generation passes away, and before they come to be considered an incredible and impossible part of our professional history; and to make this suggestion is one of my reasons for touching on the subject.

In these old days we had to bleed, cup, and draw teeth, and to make setons and issues as part of our daily work. It is possible that some of my hearers may never have bled a patient, and scarcely know the look of a lancet-case, and to them, as to me, the wonderful change in practice between now and then must be striking, when I state that I have bled more than forty hospital patients in one day. We are too much afraid of the loss of blood now, and I still think that a man in robust health who meets with a crushed limb requiring primary amputation has a better recovery if he have lost a moderate quantity of blood at the time of his accident. Those old vigorous bleeding customs have been rightly doomed and can never return; but I am sure that surgeons are too quickly getting out of sight of one very valuable remedy in the treatment of such cases as injuries to the head and chest in certain stages.

I fear that fashion, and the opinion of an outside public uneducated and ignorant as to medical matters, have had an undue share in effecting this change; and why, except for this fashion, have we neglected another old and important aid in the treatment of disease of more chronic kind? I mean counter-irritation of various forms, which is sound in principle and most useful in practice. We are now taught to look with suspicion, if not with dread, on a drop of pus; our predecessors called it laudable; and in my time numerous and ingenious were the devices to produce a suppurating surface. I have no wish to defend the treatment such as I saw formerly, when Dieffenbach and Jungken at Berlin, and Velpeau and Roux at Paris, after an amputation, would fill the stump between the flaps of skin with dry charpie, before bringing them together with bandages, to insure a good suppurating surface. The mortality after these amputations was a sufficient warning against the plan; but for chronic joint-disease, for chronic eye-disease of various forms, especially the chronic inflammations of the cornea, for chronic inflammation of the middle ear, and, I believe, for a very much larger number of chronic internal maladies in the

domain of the physician, a seton or issue, or some other discreet mode of counter-irritation, is of the greatest service, and not nearly often enough used.

And as time goes on, new operations and new remedies are brought forward and established for awhile, and old ones that have fallen into disuse are resuscitated and started afresh; and rightly there ought always to be the survival of the fittest, but this is not by any means strictly the case. Certain operations, such as amputations and herniotomy, and also other remedies which we use as the acknowledged means of saving life, are established and survive, but among those not quite so urgent, fashion, or some other equally irrational cause, not unfrequently steps in to interfere with our progress. Some such inadequate cause, no doubt, first started the growth of the great medical imposture, homœopathy, which has attained such a development amongst us; and although it has invaded the territory of the physician much more than ours, I nevertheless think that it has had the effect, in some degree, of discouraging, or diverting into a wrong channel, the search for pathological truth.

In the days before the use of anæsthetics, we were without the powerful argument we now use in advising a patient to submit to an operation—viz., that it would be painless; but the difference in this respect, in the majority of cases, was not very great, and patients made up their minds to what was inevitable almost as well as they do now. Nothing brings to my mind the benefit of anæsthetics to the patient more forcibly than the remembrance of the signs of terror or almost despair in the case of double amputation for crushed limbs when the patient saw the surgeon taking up the knife to remove the second limb; and this I have seen on more than one occasion. Under such circumstances a very important element for the patient was the speed with which the operation was completed; I consider that rapidity in operating is almost as essential now as it was then, and that it is not sufficiently attended to. The late Mr. Liston and many others would complete an amputation in three-quarters of a minute, and this with the greatest accuracy and neatness. I think that I have noticed, as far as my opportunities go, a tendency to greater deliberation and slowness of procedure in operating; and this I hold to be a mistake, for I am convinced that the shorter the time that the patient is under the influence of an anæsthetic and in the hands of the operator, the better.

Of the operations that have been revived, one of the groups is the excision of joints; the excision of the knee-joint having been performed, as is well known, with remarkable success, by Mr. Park, of Liverpool, in 1803, and the discussion upon the subject as part of our programme renders my saying anything about it at present superfluous; but there is an operation which after resuscitation is in great danger of being buried again, and I should like to say a word against its re-interment. I allude to median lithotomy. There will always be difficult cases of stone in the bladder which lithotrity with all its improvements will not be able to touch, and which must be cut. The advocates of the median section—and I confess myself to be a warm one—contend for it that whilst it is equally efficacious, it is in the adult a less dangerous proceeding than the lateral operation. I have not such frequent opportunities as I had formerly, as one of the acting Surgeons of the Bristol Royal Infirmary, of performing lithotomy; but I have done no other kind of cutting operation for stone for many years, and in any future case should certainly have recourse to it again. In the young boy the operation is more difficult; and although the usual lateral section is very little fatal in young subjects, I think that the median has two definite advantages. There is less risk of hæmorrhage from a cut in the middle line, wherever it is, and the little patient is able to hold his urine sometimes from the actual date of the operation, or the next day, but always much sooner than when the neck of the bladder has been divided laterally. In many cases they have been known to get up and run about the room in two days.

In the case of the adult, the wound would not be so deep, there is little or no fear of bleeding, and the power of retaining the water in the bladder is not so completely lost. I have removed stones weighing upwards of three ounces by this method without any difficulty.

The following curious case was under my care some time ago:—A very tall and powerful young man, aged twenty-three, with a large development of the external genitals, but doomed to a life of celibacy, contrived to let a cylindrical stick of red sealing-wax slip down his urethra into the bladder; and after bearing it as long as he could, he had to seek advice. His medical friend, with much ingenuity, proposed and tried the injection of a solution of borax, with the idea of dissolving the foreign substance, but without much effect, and he came under my care. I performed the median section, but from the depth of the perineum my finger could only just reach within the prostate. I removed with a forceps a rounded mass of sealing-wax, having little or no trace of its original shape, covered thickly with phosphates, and several small pieces were washed out.

He had no trained or other nurse to whom I could give precise directions, and consequently when visited in the evening it was found that his bladder was full, for he had with much pain retained his urine all the day, having mistaken what I told him on his recovery from the anæsthetic. During his convalescence, which was complete, he passed a piece of sealing-wax through the urethra and had an attack of orchitis. The bladder kept considerable power of retention throughout. Perhaps some of my hearers may be as ignorant as I was before the medical man whom I met told me that borax is a solvent of sealing-wax, and I find on experiment that it is really so.

Gentlemen, I feel that I ought not to be detaining you with my desultory remarks, put together in the short intervals of a busy time, while we have before us such an interesting programme of scientific work to get through.

Surgery claims for herself her full share of the wonderful inventions and improvements of this energetic age; and no one may foresee what wonders the next twenty years may bring forth. She is going on in nearly parallel lines with her sister Medicine, having the same terminus to reach, viz., the relief of human suffering; and at the many points where the lines closely approximate we get the benefit of the recent therapeutical discoveries which she has made, whilst we, on the other hand, more than repay the debt by the help we are frequently called upon to give.

My old master at St. Bartholomew's, the late Sir W. Lawrence, after his first trial of Esmarch's tourniquet, said that he had certainly never expected to see the day when he could remove a patient's limb without his feeling any pain whatever, or losing a single drop of blood; but in the more immediate present, in addition to these and other wonders, we have to chronicle the bold achievements and marvellous triumphs of abdominal surgery, from which it appears that but few organs of the body are out of the reach of the surgeon's help; and that operations for the cure of maladies within the abdomen, a few years ago considered so perilous as to be unjustifiable, are now daily done with a degree of safety and a rate of mortality more favourable than that of the ordinary capital operations not very long ago.

Wounds of the intestine, except a few rarer cases where the damage was superficial and easily reached, have hitherto been left to the tender mercies of the *vis medicatrix naturæ*, and a little opium. Now they are sought for and stitched up, and surgically treated like any other wound, and the responsibility of the case is transferred from nature to the surgeon. We have to record the series of operations which come under the general head of osteotomy, by which bent limbs are made symmetrical, and knock-knees straightened, and other osseous deformities of the body corrected; and we have besides ingenious improvements of all kinds in our appliances—new instruments, new ligatures, bandages, and whatever other things the surgeon requires in his daily work, far too numerous to mention.

Undoubtedly, a large share of these successful results is due to the introduction of the antiseptic treatment of wounds, which gives the operator more confidence that the wound which he makes will not, of itself, prove a source of danger to his patient; and we necessarily come to the conclusion that anæsthetics and antiseptics combined have been the chief steps by which we have reached this high point on the road to success.

During the year that now expires, since our last annual meeting, among those who have gone to their last home are one or two whose names, well known in years gone by, I should like to mention before I sit down.

James Luke, formerly of the London Hospital, a man of high surgical note in my earlier days, twice President of the Royal College of Surgeons, of which he became a member sixty years ago, member of the Council, and Examiner, died

at the good old age of eighty-two. He had, of course, retired from work for a considerable time: so much so, that, probably, the younger generation of you scarcely knew his name. He was distinguished for hard and steady work as an anatomist and surgeon, and for his practical knowledge of our branch of the profession. I believe that he was the first to insist upon a small incision in the operation for strangulated hernia, instead of the older plan, which I have seen adopted, of laying open the skin, and coverings, and sac, from top to bottom, whatever the size of the rupture.

John Flint South, of St. Thomas's Hospital, another patriarch, formerly President, Councillor, and Examiner of the College, whose membership dated from the year 1819, had reached his eighty-fifth year. He was an accomplished surgeon of the old school, highly educated beyond the usual limits of a professional education, with strong classical and literary tastes; and he also did some good work for the advancement of the surgery of his time.

Then James Spence, the well-known distinguished surgeon, and Professor of Surgery in Edinburgh University, an orator when we met at Edinburgh in 1875, died at work this year, at an advanced age.

And Pirogoff, of St. Petersburg, whom we all know by name, and who is recognised as one of the surgical authorities of our time, died also at an advanced age, but still at work.

Professor Busch, of the University of Bonn, who was in London last year, at the meeting of the International Congress, died at the earlier age of fifty-five. He is stated to have been a favourite pupil of the famous Johann Müller, the physiologist, and the cause of his death was perforation of the appendix vermiformis.(a)

Nearer home, Mr. Gore, of Bath, died almost at work, in his eighty-third year—a skilful provincial surgeon, of great note in our neighbourhood; and Dr. Greenhow, of Newcastle, once an active member of our Association, reached the great age of ninety years. He became a Member of the College in 1814, and was made Fellow in the first batch of Fellows created in 1843. He was a first-rate surgeon and operator.

I have not chosen these names because of the great ages they attained, but because they are some of the most distinguished of the surgeons who have been taken away during this past year; and they afford another interesting proof, were any required, that the work of the brain does not necessarily wear out the individual; and, as is the case with the learned judges and the Bar, some that work the hardest live the longest.

May the time never come when we cease to hold in respect the memories of those who have passed away, after a life of hard and useful work and good service.

ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF PUBLIC MEDICINE.

At the Annual Meeting of the British Medical Association, held in Worcester, August, 1882.

By ALFRED CARPENTER, M.D.,
President of the Section.

THE EARLY WORK OF THE ASSOCIATION IN PREVENTIVE MEDICINE.

Gentlemen,—It is a great privilege to be the President of a Section of our Association on this, the fiftieth anniversary of its foundation. On this occasion, some might think it would have been more in character if the Public Health Section had been presided over by some distinguished *savant* who had himself advanced the study of preventive medicine by his own immediate work in the line of original research. There is, however, a fitness of things in the fact which is probably at this moment in your minds, that one who is neither metropolitan nor provincial, and whose sanitary work has been mainly observational and executive, should occupy the position of President in this Section on this anniversary. The Provincial Medical Association of 1832 has now become cosmopolitan as well as British; its ramifications are co-extensive with the empire; and its members are found in all parts of the world. A large portion of this rapid growth has come to pass because its foundation was intimately associated with the inquiry into the causation and prevention of disease, and the application of the principles which regulate the health of the general public. When our founder put forth his programme, there was no general association for the furtherance of those objects, which to my mind have revolutionised the system of medicine. The prospectus which he published in 1832 put forth as a *raison d'être*, "The investigation of the modifications of endemic and epidemic diseases in different situations, so as to trace their connexion with peculiarities of soil and climate or with localities, habits, and occupations of the people."

I claim the object which is stated in this paragraph in his prospectus as the principal lever by which the success of his movement has been achieved. The whole of the five points contained in his syllabus were all worthy to be fought for. They could only be obtained by a combination of persons, and the mutual support which the observers over large areas could afford; but not one equalled in importance that which is now known as the science of preventive medicine, and which is contained in two of the five points advocated by Sir Charles Hastings.

The establishment of this Association at Worcester in the year 1832 may, then, be fairly looked upon as the starting-point in a new campaign, which involved the prevention of all kinds of disease, and made that object of higher significance than the cure. True it is, that many pioneers had surveyed the confines of this comparatively unknown country, and had penetrated sufficiently deep into its recesses to have been able to make partially known the wonders which a study of its natural history revealed; but, being a study that required combination and intercommunication at numerous places, and with many persons upon corresponding lines, so as to bring observation made at many points to one focus, required something more than the work which single individuals, however gifted, could effect. The Provincial Medical Association was just the organisation required for that purpose, and which, though faulty in many points, did very much to effect the object sought for.

Let us look for a moment at the substance of our founder's syllabus, and the five points upon which it is based. In the first place, it is obvious that the best means to be used for the cure of disease will be the outcome of individual experience, and that object stands first in the programme. But it is properly and immediately followed by the second and third, which together make up a large part of the questions involved in a consideration of "Public Health," and which are collective rather than individual.

As regards the remaining points, it is true that the trying circumstances which often arise in courts of justice are better borne when we know that we are sure of the support of our professional brethren, and the maintenance of the honour of the profession, and harmony amongst its members, are noble objects to be attained; but these points are much more of a personal and individual character than those which belong to "Public Health." They are limited in their results to the units of society, and seldom extend beyond the personal influence of those units, whilst the objects which follow from the study of preventive medicine produce effects which, in the end, not only reat upon the nation, but upon the whole kingdom of animated nature. We may therefore fairly assume that the benefits which the British Medical Association has been instrumental in producing have been enormously enhanced by this part of our founder's programme, and that of the five points of his syllabus. Those connected with preventive medicine held, and will continue to hold, the most important place, because they are bonds which are most capable of uniting us together in a general brotherhood for one common beneficial and unselfish object, whilst they unite us most directly with the public at large, for it is the only Section to the meeting of which the outside public are admitted.

I propose, with your permission, to review very shortly the sanitary work which has been directly performed by

(a) Müller was transferred to Berlin University, where I had the privilege of attending his lectures on pathological anatomy. It was then currently reported among students that while professor at Bonn, he began to practise as a physician, his first patient being a dear friend of his own, who died in spite of his efforts to save him, and the necropsy revealed what he had not suspected—viz., perforation of the appendix vermiformis by a cherry-stone—which so disheartened Müller that from that time he devoted himself entirely to the scientific part of our work.

the Association, and which is embodied in some of the early volumes of its published *Transactions*. These appeared before we had any weekly journal to amalgamate us more thoroughly together. Some of that work has been undeservedly forgotten. I do not think I can do greater honour to our founder than to recall to your memory some of the prominent points which are a part of its history, especially those which are more directly connected as sanitary work with him and his colleagues in Worcester and its neighbourhood.

The address of the founder occupies the first place in the first volume, and it is comprehensive and general. There are, in the same volume, some valuable observations upon the objects and modes of medical investigation by Dr. Barlow, of Bath, and with it is a proposal by Dr. J. Conolly, of Warwick, to establish county natural history societies, for ascertaining in all localities what states are productive of disease or conducive to health; thus connecting our own particular work with the objects and transactions of the Association. There is also a valuable report upon the state of disease in the city of Worcester during the year 1832, by Dr. R. N. Streeten, of this city, and which will probably be referred to by others at this meeting in more detail than I need give to it, they having more direct and personal knowledge of the points to which it refers.

The second volume is highly topographical, as are large portions of the first series. There is also a paper by Dr. J. Brown, of Sunderland, upon the variations in the production of certain diseases not usually supposed subject to epidemic influence, and which takes us into the region of general illness, showing that our work is not to be confined to epidemic or infectious conditions. There are also observations upon the cholera which appeared in Wolverhampton in the autumn of 1832, by Dr. T. Ogier Ward; followed, in the third volume, by remarks upon cholera, by Dr. Symonds, as it occurred in Bristol.

There is also an account of scarlatina as it appeared in Beaconsfield in the autumn of 1832, by N. Rumsey. Time would fail me to do more than quote these papers, as clearly indicating one of the directions in which the Association proposed to work.

A series of questions upon vaccination was formulated by Dr. Baron, of Cheltenham, for distribution among the members. The Council appointed a committee at the Bristol meeting to take up the whole subject, and to report upon it; but it was a wide and an important matter. Much deliberation was, therefore, devoted to it, and the *personnel* of the Committee enlarged at a subsequent meeting, and before the report was presented. The third volume takes up cholera and scarlatina, by the same authors as before.

There are in the fourth volume some capital topographical reports upon the district around Malvern, by Mr. Addison. These reports are very excellent, and appear to have done much to call attention to local conditions; but they were not continued regularly. Attention was drawn to them in the year 1850, in the hope that they might be continued.

The proceedings in the general meeting which was held at Bristol directly connected the Association with the agitation which was then springing up throughout the country upon the subject of the registration of disease; and a resolution was passed, calling upon the Legislature to make arrangements for recording the causes of death in the registers of mortality. The secretaries were directed to place themselves in communication with the Committee of the House of Commons then considering the state of the parish registers, and to urge this point upon the attention of that Committee. Their representations were of some effect, for the Registration Act was passed shortly afterwards; and the "indefatigable Mr. Farr," as he is termed in the report, comes on the scene, supported by the whole influence of the Association; and Dr. Farr's work has been in the past a foundation for observation and correlation as regards public health, and will continue to be so for all future time. The presentation of the Hastings Medal to him at Cambridge in 1880, being at the close of his public life, was a lasting memorial of his services to sanitary work.

The fourth anniversary, held at Manchester, was distinguished by evoking a power very marked in its character, and evidencing the determination of the Council to consider the subject of "preventive medicine" as of paramount importance. The Council in its report says: "If medical observers had been content to mark with simplicity the series of events belonging to epidemics, like as did Hippocrates and Sydenham, we should not have been so much in the dark as we are at the present day. . . . Convinced that an extensive accumulation of facts is above all things essential, the Council earnestly requested each member of the Association to keep a register of the rise, progress, and decline of epidemics in his own district, being very particular as to dates and localities, and of the object desired; so as to discover, if possible, the effects of external influence in the production and propagation of those diseases. The condition of the atmosphere should also be registered, particularly its barometric, thermometric, and hygrometric states. The object is not to build a theory, but to record facts, from which useful deductions may eventually be drawn; and, having stated this, the Council are satisfied that each member will feel it his duty to contribute his quota to so desirable an end. The register, completed on the last day of May in each year, should then be forwarded to . . . . the Council." The report then goes on to say that, on a subject where the want of extensive and careful observation is felt, "the Council feel warranted in asserting that they expect the most satisfactory results from the combined observations of the Medical Association, forming a phalanx of observers never before known in the annals of British medicine."

I quote this paragraph in its entirety from the report presented at the Manchester meeting in 1836, for it shows that the clear-headed founder of the Association had in view the very arrangement which has been only recently effected by the energy of the President for 1880-81. The combined Observation Committee which Professor Humphry has so ably founded, and Dr. Mahomed has organised, and which has already put out ramifications in all directions, is a part of the mission which the Association was bound to perform, and I congratulate the Association upon its completion, though it has taken forty-five years to bring it to a culminating point which involves success, and which could only arise after our financial condition was secure.

The fifth volume of *Transactions* contains some excellent papers, topographical, geological, and statistical, referring particularly to Bolton, by Dr. Black. There is also an article on "Glanders in the Human Subject," which is marked by a careful notation of facts by Dr. James Johnston. He sums up his observations by stating that, "Disorders may be communicable from one species to another, and that glanders, supposed to be peculiar to the horse, had lately been observed in man." The writer does not claim that he was the first to draw attention to the subject, for he refers to cases published by Mr. Travers, Dr. Elliston, Mr. Massey of Nottingham, and others on the Continent, but he says that the materials at hand were scanty. He connects the cases with farcy, and points out its likeness to gonorrhœa and syphilis, and draws attention to the effect upon human beings of matter from animals, which at that time was supposed to be unlikely to happen—the opinion of most physiologists being that there was an absolute barrier between the two classes of creatures, notwithstanding the evidence afforded by Ceely's observations. It was a good work, associating disease in man with its factor in the animal kingdom, so as to bring that connexion forcibly to our notice, and to popularise the idea in the minds of the profession. It has helped to bring forth important fruit. The same volume contains a masterly report upon the then condition of medical relief for sick paupers, by the Messrs. Rumseys and Robert Ceely, and, with a paper by Dr. J. Yellowby, addressed to Lord John Russell, was greatly instrumental in drawing attention to the terrible evils under which at that time the poor of the land were placed by the local authorities, and to the serfdom under which medical men laboured, who were appointed to attend upon the poor. This serfdom could not but for our Association have been fully exposed to public view. In those days there were no local newspapers to ventilate the grievances of the oppressed local doctor. The medical press had a very limited influence, and was seldom read by others than a small body of medical men who were without any kind of political power, for which reason, time-serving politicians scarcely cared to trouble themselves with us and our complaints. They could not have been successfully ventilated, but for the services of a few men who, like the founder of the *Lancet*, were able to wield the cudgels with intrepidity and vigour on behalf of their oppressed brethren, the parish doctors. The welfare

of our profession demanded the presence of some of our brethren upon the benches of the House of Commons, and it is an absolute necessity for our temporal welfare now as then. It is only by that means that the Ministry of the day can be brought to consider complaints connected with payment for services rendered or official arrogance, be they ever so well founded. At the same time, it unfortunately happens that we are not likely to have any immediate representatives of the profession in either Houses of Legislature.

In the sixth volume we find a report upon "Influenza or Epidemic Catarrh," which appeared so mysteriously in the winter of 1836-37, and but for the Association would have left very little record of its infliction beyond a few local monographs. The Council did that, however, which we trust will in future be done by the Collective Investigation Committee, now acting under the instructions of Dr. Mahomed. They issued a circular to the members, requesting information as to the origin, progress, and duration of the epidemic, the atmospheric phenomena attending and preceding it, together with such other particulars as might be necessary for the elucidation of many questions of interest immediately connected with the epidemic and its surroundings. A series of eighteen question was issued, a committee was appointed at the Cheltenham meeting to examine the replies which had been sent to the Council, and to draw up a report upon the answers. An elaborate report was accordingly edited by Dr. R. J. N. Streeten, of Worcester, and Mr. Addison, of Malvern. It occupies sixty-seven pages of the sixth volume; and upon page 558 of the volume we find a chart with dotted and shaded lines, showing the apparent alliance between the fall of temperature and the rise of influenza. But the supposed influences are shown to be checked by evidence obtained from many parts of the country; they did not stand in the relation of cause and effect, for the conditions were present in some places, but were not accompanied by the influenza. This chart is an evidence of the commencement of the use of a means which is now very generally adopted, and which has become an absolute necessity in determining the rise and fall of influences which may or may not affect each other, and which similar charts are able to depict in the most immediate and satisfactory manner. They are often used to show the non-influence of supposed causes, as well as the direct sequence of antagonistic or allied forces in the prevention or in the production of disease. The first use made of the chart by the Council of the Association was to dissipate the error which was then generally accepted as true—viz., that the influenza was the result of a sudden extensive snowstorm, and had simply to do with rise and fall of temperature. The report for the year 1837-38, which was doubtless drawn up by our founder, refers in congratulatory terms to the result of the inquiry regarding influenza, and states that in all future epidemics a similar plan may with propriety be adopted; and it encouraged the Council to issue queries of a similar nature respecting small-pox and the protecting influence of vaccination.

The Association was at that time able to give a specimen of its usefulness in another direction. Dr. Thackeray, of Chester, offered £50 as a prize for the best essay upon a medical subject; and the Committee appointed to advise them upon its proper appropriation determined "that the investigation of the sources of the common and continued fevers of Great Britain and Ireland, and ascertaining the circumstances which may have a tendency to render them communicable from one person to another," should be the subject of competition, giving another proof of the direction in which the Association proposed to work.

This prize was not awarded until 1840. Eight essays were sent in, and the successful paper was by Dr. Davidson, of Glasgow. It is published in vol. xi. of the *British and Foreign Medical Review*. I have not had an opportunity of consulting this paper, but it and its competitive essays doubtless did something to draw attention in Glasgow and elsewhere to the causation and means which ought to be taken for the prevention of that class of disease.

The consideration of the condition of the public health occupied an important position in the proceedings, for the following resolutions were adopted at the annual meeting which was held at Cheltenham:—

1. That it appears desirable to this meeting that the members of the Association, in their several localities, should urge upon the members of Legislature the importance of an enlightened consideration of the question touching public health now pending in Parliament.

2. That the meeting suggests to the members generally the propriety of lending their aid to carry into effect the Act which has recently passed the Legislature, to produce an improved registration of births, deaths, and fatal diseases.

3. That, as the Association feels persuaded that an extensive series of observations, made in the various sanitary institutions of the kingdom, would contribute especially to the progress of medical science, a committee be appointed to draw up tabular forms for statistical records of disease.

At the annual meeting which was held at Bath in the following year—that is, 1838—a considerable number of honorary corresponding members of the Association were appointed, many of them being noted for their labours in connexion with the study of epidemic disease, and its relation to the topography of the districts with which they were directly connected.

The meeting was also signalised by the appointment of a new and enlarged committee to consider the question of small-pox and vaccination, to whom the replies to the queries of the Council were to be referred; and they were instructed to take the whole subject into consideration.

The Address on Medicine was read by Dr. Jonas Malden, of Worcester: the earlier portion of it belongs to the region of causation and prevention; the beneficial influence of vaccination is strenuously urged upon the attention of the members; and the orator concludes his exhaustive review, which is well worthy of study, by urging upon the Association to observe Nature with accuracy, and to interrogate her with the most scrupulous caution. A large portion of the volume of *Transactions* for this year is devoted to Medical Topography.

The meeting held in Liverpool in 1839 was noted for the time which was bestowed upon hygiene; the volume of *Transactions* is one of the most valuable of the whole series. The President dwelt very forcibly upon public health, after eliciting loud applause by giving utterance to a belief that the annual meeting was "the Parliament of the profession." He proceeded to remark that "we have to consider various and important subjects: one of them is that of hygiene, a study in this country comparatively overlooked . . . . and this may be said without detracting from the just merits of those authors who have afforded effectual aid to the student by their writings." And, after noting a considerable number of kindred publications, he goes on to say: "Surely, it must be considered no small part of the duty of the medical man to preserve health as well as to combat disease, and this can only be done by vigilantly observing and making known local circumstances which lead to it"; and then he urges upon the Association to do their duty in promoting the beneficial effect of vaccination.

The report of the Committee upon Small-pox was presented at this meeting, and occupied nearly three hours in its delivery. It fills ninety-eight pages of the eight volume of the *Transactions*. Sufficient justice has never been done to this report; it is seldom referred to by recent authors, but it deserves to be reprinted and again distributed throughout the land, for it utterly demolishes all the arguments which are still brought against vaccination by those mischievous individuals who prey upon the weak minds of those who find the funds for the anti-vaccination craze, and who provide the funds to pay the salaries of those whose interest it is to keep that wicked agitation alive. The report deals with the affinities between the so-called human small-pox and cow small-pox, and conclusively establishes their identity. The volume is illustrated by some of the best representations of the disease which have ever been printed, and which were produced by the late Mr. Ceely, of Aylesbury. He exhibited his original drawings at Cambridge in 1880, and showed some of that vigour which animated him in 1838, and which even at eighty-three years of age called forth loud applause at the University meeting. In any other country than our own, Robert Ceely, as well as his great prototype Jenner, would have been decorated with a string of honours of the highest order of merit; but in our own country those rewards are only reserved for men who kill their fellow-creatures, or who play into the hands of the political leaders of the land, and not for those who are unselfish public benefactors.

The report dealt with the impediments to correct vaccination, and laid down directions which have been curiously

disregarded. It clearly proves that the protecting power of vaccination is almost, if not quite, equal to that which is afforded by small-pox itself, and that recurring cases after perfect vaccination were not more numerous than after small-pox. It proves this statement by satisfactory statistics. It brings out facts which were well known to Jenner, that there were conditions which were gradations of protection, from those which are complete to those which are none at all. Dr. Jenner's last publication upon the subject shows that this knowledge caused him much disquiet, because his admonitions were so little heeded. The report deals with revaccination, and recommends it to be carried out under certain conditions. It points out the evils which arose from the practice of inoculation; it protests against the continuance of that practice, and suggests lines of conduct for promoting genuine effectual vaccination.

The report, which was signed by Dr. Bacon, of Cheltenham, was received and adopted with cordial votes of thanks to its authors; and a petition to Parliament was agreed upon, calling upon the Legislature to prohibit inoculation, and to take measures to render vaccination more effectual. Mr. Ceely's observations upon the variolæ vaccinæ as they occasionally appeared in the vale of Aylesbury, with an account of some recent experiments in the vaccination, retrovaccination, and variolation of cows, illustrated by a most valuable series of plates, thirty-five in number, occupies nearly 150 pages of this volume. Mr. Ceely took for his motto Montaigne's dictum—viz., *Que chacun dise ce qu'il sait, tout ce qu'il sait, et rien que ce qu'il sait.* And well he carries out the precept; it is a model for our young men, and it is still worthy of study by our older heads. There is an addition to the report in the next volume, which is quite equal in interest to the first part of the work, and it has some excellent plates which show infection from cow to man.

The eighth anniversary meeting was held at Southampton. The report of the Council informs us that the result of the petition to Parliament, and the information which had been distributed by the agency of the Association, was instrumental in gaining a Legislative enactment, by means of which inoculation was prohibited, and the regular practice of vaccination promoted by new machinery. The Report, however, regrets that the clause enforcing this Act throws the duty upon the Poor-law Boards. The Council endeavoured to obviate this unfortunate arrangement, but were unable to do so; and that which was believed to be a misfortune by the Council at that day, has been shown to be so by its results, and has continued to be an impediment up to the present time. Nothing has interfered with the thorough performance of vaccination so much as placing its machinery in the hands of a body whose great object has been, by means of the agents employed, to get the action carried out in a cheap manner, rather than in an effectual one—a body which has been in the past more intent upon reducing the charge upon the current poor-rate than to protect the public from the evils of small-pox. The Royal Commission, upon which I have had the privilege of acting, has unanimously recommended that this anomaly should be removed, and that the machinery for efficient vaccination should be altogether separated from the management of the paupers of the country, and placed in the hands of the sanitary authorities. The Association was instrumental in abolishing the practice of inoculation. They could obtain prohibition, but the payment for a new duty was altogether another thing. In all matters in which an expense has to be met, it has always found us unable, in a great measure, to do justice to the requirements of our profession, because of our limited political power. A special vote of thanks was passed to the late Mr Wakley for his exertions in the House of Commons in support of the Vaccination Act, as well as for other points upon which he had been instrumental in forwarding the interests of his professional brethren; and it was also directly owing to him, as much as to anybody, that the practice of inoculation was put a stop to by legislative enactment.

We are informed by Dr. Jeffry, at Southampton, in his retiring address, that the report which was presented by Dr. Bacon at the Liverpool meeting was quickly translated into the German language, and probably has had much to do with correct knowledge upon this subject on the Continent.

The report of the Council at that meeting concluded by congratulating the members assembled that "their endeavours to alleviate the sickness and sufferings of the human race had been crowned with a success as great as the most ardent mind could have anticipated."

It was also pointed out at the meeting, and a resolution was passed, that the interests of the public would be more satisfactorily protected if the children attending public elementary schools should be required to produce a certificate, stating that the child had been efficiently vaccinated. It would be an advantage if the duty of inspection on this point could be made a part of the duty of medical officers of health, and that he could be the advising officer for all school boards upon public hygiene. The Association, at this meeting, was stated to consist of upwards of 1500 members. It was suggested that the time had arrived for it to possess a journal devoted to the interests of the Association itself. Soon afterwards an arrangement was effected by which the *Provincial Medical and Surgical Journal*, then being published at Manchester, became affiliated with the Association, and reported its proceedings.

Next year Dr. Hastings resigned his position as General Secretary, and was appointed President of the Council, an office which he held until his death on July 30, 1866. It is not for me to pronounce any particular panegyric upon our founder, but I must record my opinion that to him and his exertions we owe some of the advance which has been made in the study of preventive medicine. His knowledge of men and things enabled him to single out those pioneers of work for the public good which placed them in positions in which they could be more useful, and could push forward their work with greater vigour and effect. I feel sure that it will be with your approval that I record this opinion upon this anniversary in this Section, and state that sanitary science owes much to this city.

Dr. Streeten, his able colleague, supported his chief with loyal consistency; actively engaged in the work of the Association, he delivered the Address on Medicine at York in 1841. In that address, made forty-one years ago, I find a reference to the work of our distinguished colleague, Dr. A. P. Stewart, which clearly establishes his claim to having first pointed out the distinction between typhus and typhoid fevers; he helped us to solve some difficult points in causation, and connects, as far as the Association is concerned, the distant past with time present—for the same A. P. Stewart is still among us, giving us the benefit of his wisdom and consummate knowledge upon the principles of hygiene and the laws requisite for the promotion of public health. Dr. Davidson's paper, which had gained the Thackeray Prize, is in the succeeding sentences spoken of in terms of eulogy; and it is a curious point that a Stewart Prize has been awarded at this meeting to those who have advanced the cause of preventive medicine by original research, and that we owe our power to award that prize to the same Dr. A. P. Stewart who was so highly spoken of by Dr. Streeten. The Worcester physician succeeded his chief in the office of General Secretary, and continued to direct the work of the Association until the time of his death, which took place shortly before the annual meeting that was held at Worcester in the year 1849.

Dr. Streeten showed by his work that a consideration of public health, in his view, was the noblest part of a doctor's vocation. The foundations for a great result were laid by those eminent members of our profession in this ancient city; and to them, with their gifted chief, Sir Charles Hastings, we owe some of our power to distribute knowledge upon these principles, which are important to every living person.

A Public Medicine Section was first organised at the Oxford meeting in 1868, and has been regularly instituted since that date. In 1875 I had the distinguished honour of reading an Address upon Public Medicine—a position which public medicine occupied for the first time at the Sheffield meeting.

The impetus given to original research by the Scientific Grants Committee; the foundation of the Hastings Medal; the registration of disease, as suggested by my distinguished predecessor in this chair, Dr. Ransome; and especially the establishment at our Universities of examinations in subjects relating to public health—have tended to help forward the good work. The latter is especially due to the enlightened men who have acted as your guides upon the Committee of Council, and who have been placed at the head of the *British Medical Journal*. The position that sanitary science and preventive medicine now

occupy in the estimation of the public is due, in a great measure, to the steps which Sir Charles Hastings took when he founded the Association fifty years ago, and in his honour, as well as for the public good, I ask you to assist to render it all that can be desired that it should become. Time would fail me to refer to all the works connected with our subject, but with an able editor of our *Journal* especially devoted to hygiene, and who lets no opportunity slip of promoting those objects which especially belong to our branch of the Association work, there must be a great future in store for us; and the revolution in medicine, which a study of prevention is likely to effect, may be nearer than most of us suppose to be the case. Our successors in this work who will occupy our places fifty years hence will then, perhaps, be able to give a tribute to our memory, not on a par with that which we wish to bestow upon our founders, but one which will tell to future generations that we have not been false to the trust we have undertaken to perform.

ADDRESS DELIVERED AT THE OPENING OF THE SECTION OF PATHOLOGY.

At the Annual Meeting of the British Medical Association, in Worcester, August, 1882.

By J. HUGHLINGS-JACKSON, M.D., F.R.S.,
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PATHOLOGY is the basis of every rational system of therapeutics. That, possibly, the greater part of our most effectual treatment is at present empirical I would not deny, but that therapeutics will become rational is what we all hope. To those who are quietly and laboriously working at what may, superficially looked on, seem to be obscure pathological problems, steady advances in diagnosis and rational therapeutics will be chiefly owing. It is evident that, for rational therapeutics, we must know what there is to be treated. No man in our profession deserves greater credit than the pathologist—including, of course, the clinical pathologist, and never forgetting the medical officer of health. The medical officer of health is the pathologist of the Social Organism, and deserves the highest social recognition. Speaking more narrowly, tacitly assuming the obvious qualifications, the best practitioner, perhaps not the most confident one, is he who has carefully made most post-mortem examinations. I do not mean him who stops here, who stops in a stage which is rather to be called one of morbid anatomy than of pathology. But a man must begin here—must begin here to learn for himself, at any rate. The best knowledge for practice is what a man gets for himself. The only way of being thoroughly practical is to face the facts, to get verification or disproof of our opinions. A post-mortem examination never flatters us. If, for an example, we diagnose tumour of the cerebellum during the life of a patient, we may, post-mortem, find one in the anterior cerebral lobe. Such a rap on the knuckles is good for us. It makes us less confident, and teaches us to be more careful. A post-mortem examination may tell us that we have been treating a patient with useless, perhaps with injurious, drugs.

Every medical man has some system of pathology. But there are systems and systems. Besides scientific pathology there is a crude pathology, and there is, unfortunately, a metaphysical pathology. We have long heard that old maids' husbands are always well behaved; and, on the same principle, the pathology of those who do not make post-mortem examinations is often confident and definite. But the really important thing is to be accurate and precise, otherwise we confidently organise error in definite formulæ. A man's pathology may be too definite, in the wrong way, because he has not worked for himself at pathology. It may be only superficially and verbally definite, and really crude. He who has made many post-mortem examinations is not so metaphysical in his explanations of the pathology of some of those cases of disease of which there is no known morbid anatomy. In looking carefully for himself into the coarsely concrete, a realistic habit of mind is produced in a person, and thus he avoids verbal explanations of those most difficult cases which are without known morbid anatomy—of those, for example, commonly called the Neuroses. To my young hearers I say, always endeavour to obtain post-mortem examinations. Unless you are in the habit of facing the facts, your diagnoses will be untrustworthy, and much of your therapeutics indefinite. If a man does not learn pathology when he is young, he is not likely to learn it properly later. Unless he has seen much for himself, he will not practically realise the researches of others, nor be able to judge them. I would urge on young medical men the formation of clubs for making post-mortem examinations. Let me mention a slender personal experience. Many years ago, at York, a club of this sort was formed. It had no other organisation than the agreement that each member should obtain an examination whenever possible, and ask the other members to attend. The history was stated by the person who, so to speak, owned the case, and then each of us saw what there was to be seen, and notes were taken. In this way it is not difficult to get a large experience of direct value for practice. This very simple method has, I suggest, some advantages over reading papers and more elaborate demonstrations, although these are necessary for organisation of knowledge. Each learns something, however little, at first hand. And since the whole body, as well as the organ principally diseased, is searched through, it is in some ways very much more teaching than the exhibition of interesting specimens of disease of isolated parts, valuable as that is. Some of the cases we had to deal with were "coroners' cases," some of them were cases of sudden or of rapid death.(a) As early as possible in our career we should familiarise ourselves with cases of acute disease; with emergency cases—with cases that will not wait. In some of those we saw, the history was, from the circumstances, imperfect. I do not think that this was altogether a bad thing, for we are called on to give legal evidence in such cases. To take one example. We may be asked to say what caused the death of a prostitute who, when last seen alive, was drunk, and who was found dead in a gutter with a bruise on the head, and about whom there was a doubtful history of a fit. Reasonable or not reasonable, we have to go into the witness-box, and say whether we think a patient died of drink, of poison, or of injury, or of disease, or that we do not know which he died of. In some of the cases we dealt with, the patients, if I may use the word, were seen when dead. When called to a dead person the ordinary medical difficulties are over, but very often great responsibilities of other kinds begin.

Pathology is, of course, now well taught in hospitals. But I am urging that a man should go on learning pathology for himself—go on being a student as long as possible. Most of the work on pathology will be done by those who have large and special opportunities. Scientifically I am a democrat, and should like everyone to be a pathologist for himself, so far as possible. Many a man learns quickly, and is very zealous, when a student; he is, apparently, a man of promise, and then stops short and ceases to improve. Every man should be original. He may make no discoveries: that is to a great extent a matter of chance. I mean that he should think for himself. If he does not himself make post-mortem examinations, he will have no trustworthy materials for such thinking on cases of living people. It is one thing to possess knowledge, and quite another thing to be possessed by that of other people. Besides, in private practice are seen some kinds of cases we do not sufficiently often see in hospitals. Some of the most useful cases I have seen have been in the private practice of my friends, although I have had a large field for investigation in hospital.

Besides, in private practice, work is done under responsibility. Whilst studying at schools this excellent discipline is not nearly so great. There is nothing like responsibility for sharpening the wits; and post-mortem examinations will prevent our being too sharp. Coroners' cases are important, not only for the sake of knowledge, but for discipline. A man has to bring his thoughts quickly to a focus. A collection of good reports on these cases would be very valuable for many practical purposes. I do not suppose that our editor has any space to spare, or I would suggest a department in the *Journal* for brief reports of coroners' cases.

Many post-mortem examinations are necessary for passing

(a) I mention with much gratitude the help I had in this, nearly my earliest pathological work, from Dr. Shann, and Mr. S. W. North, of York. I learned many things of inestimable value to me, and especially as to cases of emergency.

through a kind of inversion of our knowledge—from the systematic to the clinical. Systematic medicine assumes the post-mortem examination, and goes back to the symptoms; clinical medicine begins with the symptoms, and looks towards the morbid anatomy and pathology. The latter is, of course, infinitely the more difficult.

A man who has learned properly the symptoms of cerebral hæmorrhage, those of uræmia, those of epilepsy, etc., finds the problem turned upside down when he comes to the bedside. These several kinds of cases look very much alike at the bedside. The question at the bedside is not such as, "Give me the symptoms of cerebral hæmorrhage, of uræmia," etc. That is going from the necropsy back to the symptoms. The question at the bedside is, "Here is a man in a fit—what is the matter with him?" That is looking from the symptoms to or towards the necropsy. No one is ready to answer the latter question, even plausibly, unless he has seen or made many post-mortem examinations. For at the bedside a medical man has to be original, has to think for himself.

The process of inversion is not altogether pleasant. Indeed, a man who begins with a good systematic knowledge will probably find himself confused during the process of inversion. When, after looking from the necropsy back to the patient, he begins to look from the patient to the necropsy, and sees, for example, a patient who died "with all the symptoms of cerebral hæmorrhage," he is taken aback when at the post-mortem examination he finds nothing. Let him persevere, and all will come right in time, or much clearer. Nevertheless, I would grant that, if a man wishes to be thoroughly comfortable in his diagnoses, he should never make a post-mortem examination.

A practitioner must not be a pathologist only, although unless he be a pathologist he cannot be a good practitioner. Division of labour, strictly or figuratively, is the law of everything whatever. Some of us work chiefly at physiology, some of us at pathology, and some of us at clinical medicine. But to be a good practitioner, a man must know much of all three; and most of us nowadays carry on the three lines of investigation. Every case is a departure from healthy states, and no one is fitted to begin the scientific study of diseased persons unless he knows much of the anatomy and physiology of healthy people. To a great extent, diseases are, metaphorically speaking, experiments, anatomical and physiological, on the human body. If it be not profane to say so, I would suggest that anatomists and physiologists might have more recourse to these "experiments." Charcot, in doing the best kind of pathological work, has, I should suppose, done as much for the anatomy and physiology of the spinal cord as anyone living. He is clinical all round. The three things make up the clinical problem. I do not mean that we have simply to draw incidentally on our anatomical and physiological knowledge when we see a patient, but that anatomy and physiology are integral parts of every case we have to do with.

When we stand at the bedside of a patient, when we come close to our clinical work, there is before us an anatomical, a physiological, and a pathological problem. A great part of our clinical knowledge of cases is really nothing more than anatomical and physiological knowledge. The word disease is too vague; it is used in three senses, each of which should be individualised. Since I am about to speak of cases of disease, it is not needful to add, were it correct to do so, the adjective morbid to the terms anatomy and physiology. I can best illustrate by diseases of the nervous system.

In each case there is:—1. Alteration of structure of some organ: here is an anatomical problem. 2. There is alteration in the proper functional activity of that organ: here is a physiological problem. 3. There is a change in nutrition of tissues of that organ: here is a pathological problem. In many cases we cannot carry out this threefold scheme. But we should attempt it in every one, in order that we may realise vividly what it is we do *not* know. There is a wider pathology than abnormal nutritive changes in one organ. There is not only the organ diseased or most diseased, there is also the rest of the patient to whom that organ belongs or did belong. I say, "or did belong," because sometimes part of an organ is annihilated. No clinically-minded man ever forgets the wider pathology. We no longer believe that a patient is "attacked by disease," although we still use that expression, the metaphysic having long since died out of it. It would be a better metaphor to say that the patient breeds the local disease himself, or that it has grown out of the whole of him; or better still to say, of many cases, that a certain part of a universally unsound system has fallen to pieces. So we examine our patient all over; we try to get to know as much as we can of the pathology of all important organs of the living patient.

Even yet our pathology is not wide enough. We must not consider the patient himself as more than a detached unit of his family; we have to note the tendencies he inherits, as well as to examine him to see how they are particularly evidenced in one branch or twig of a family tree.

If we take a case of loss of speech, the threefold distinction in clinical investigation can be easily illustrated. To locate the lesion is nothing other than an anatomical conclusion. To ascertain that it has destroyed speech, that it has left the patient capable of understanding what is said to him, etc., is a physiological (and psychological) investigation. Pathology is concerned only with the nature of the lesion, and with its mode of production. Nearly all that has been written on aphasia is anatomical, physiological, and psychological disquisition.

To take a still more simple case in illustration. A man has hemiplegia. To think of the case as one of paralysis only is like the habit of thought of old-fashioned zoologists, who spoke of animals as if they had nothing particular inside them, or, as Forbes said, as if they were skins stuffed with straw. We have three very different things to do, each easily done, in most cases of this kind. From noting the region affected—face, tongue, arm, leg, etc.—we conclude that there is a lesion of the opposite corpus striatum. Now, this is only anatomical knowledge. Speaking figuratively, it is only an experiment made by disease on an organ. To locate disease is an admirable thing, but localisation is not the most important clinical thing. If we stop in this stage we know nothing of any value for rational treatment of the patient; we may have some good empirical expedients. Next, observing that the region mentioned is paralysed, we conclude that there is loss of function of some nerve elements—probably destruction of them. This—physiology—also is a knowledge by itself, of no avail for therapeutical purposes in such a case. But, lastly, by examining our patient all over—for now we have done for the time with his paralysis,—and from certain empirical evidence, not needing to be stated now, we conclude that loss of function of the organ is caused by cerebral hæmorrhage, that a clot has smashed up part of the corpus striatum. This is not enough. There is yet the wider pathology. A patient looks on this illness as an accident: the pathologist never takes that view of it. We often get to know with certainty that the local pathological change is but a local manifestation of a slowly progressing wide state of degeneration; that the man is rotten all over, and that he has one day broken down suddenly in a certain place; that he has chronic Bright's disease, atheromatous arteries, and an hypertrophied left ventricle. By considering these things and their interaction, we see that he has long been preparing for what seems to him to be only an accident. I submit that the process by which, in such a pathological state, he comes to have the local lesion—why an artery bursts—is in chief part a physiological problem; there is a physiology of the organism made up of bad materials, as well as of the healthy organism. Further widening our pathological investigation, we may find that the patient is a twig of a gouty family tree.

Now, the pathology of lesions is the basis for treatment. It may be said that we can do nothing for the lesion in the case instanced. I grant that. The more we face the facts, that nerve-fibres are smashed up, and that a mass of blood is lying abroad in the *débris*, the less hopeful we feel. But the knowledge of what we cannot do is a gain for therapeutics. We do not try to do the impossible. We have much to do if we consider the patient's wider pathology. We take care of what is left of him, and do not treat what is lost of him. We must be realistic. A part of the patient is annihilated, and to treat the local lesion is to treat a hole in the nervous system. If the clot be a very small one, the patient rapidly gets well, and then, obviously, the thing of real importance is to take stock of his general condition. In a case of slight and transient hemiplegia, it is good work to localise the lesion, but it is far better to examine the patient's heart, arteries, and urine. A man who has one day's trifling incapacity in speech, or even only a trifling bleeding at the

nose, is, if he have any chronic Bright's disease too, in a worse case—is less likely to live, I mean—than a patient completely and permanently hemiplegic from embolism. Although I have spoken of a patient's getting rid of the paralytic effects of small lesions, I did not say we cured him. It is perfectly certain that a person recovers from hemiplegia, although the local destruction is not, or is but partially, repaired. Why recovery, or what anyone calls recovery, occurs in these cases, is an anatomico-physiological question.

Once more I urge that anatomy and physiology are integral parts of our clinical knowledge or directions of investigations of particular cases. In a large class of cases, where the functional affection is not negative, but the exact opposite—morbid exaltation of function—it is imperative to keep the physiology of the cases distinct from their pathology, or we shall not see what the really important medical problems are. If we take the case of epilepsy, we see that the distinction is of practical moment. A man is subject to epileptic fits. He is apparently well; then suddenly he is convulsed all over; next day he is apparently well again. Now, in this case, we cannot yet carry out the threefold method, but we should attempt it. Our anatomical knowledge is defective; we have not yet got to know the organ in fault—the particular part, I mean. Thanks especially to Hitzig and Ferrier, we have got to know much of value as to localisation in epileptiform seizures; but, as to epilepsy, nothing at all certain. But we feel sure of our physiology—that nerve-tissue somewhere is highly unstable, and that it occasionally liberates much energy, or, in other words, discharges excessively. The excessive movement outside is a certain sign of an excessive nervous discharge inside. And since, in nearly every patient, the fits are always the same in kind, however different in degree, we infer that a group of cells have become permanently abnormal, highly unstable, or, metaphorically speaking, "explosive." What I wish to urge is, that this is only an abnormal physiological state—only a great excess of a normal physiological condition. If a healthy man moves a limb, there is a liberation of energy by some parts of his nervous system; and if he be convulsed all over, there is only a great exaggeration of such a normal process. To repeat, our anatomical knowledge of epilepsy is only vaguely inferential. Our pathological information is *nil*. We have only certainty as to the physiological process. If we did know exactly the locality of the abnormal physiological condition, we should still have the pathology to find; but we should know where to search for it. The pathological question, the more important thing for medical men, is this: By what abnormality of nutrition is the local hyperphysiological condition produced? Facts as to the causes of epilepsy are wide of the mark unless they bear on this one point. Enumeration of the so-called causes of epilepsy is valuable, but the facts gathered are only some materials towards ascertaining the direct pathological causation. The man who finds out by what pathological process it comes to pass that certain parts of the nervous system become so physiologically abnormal that they occasionally discharge excessively, will have done work which has not yet been done—the best medical work on epilepsy. Putting it somewhat too narrowly, the question is: In what tissue of nervous organs does the abnormal nutritive change begin? It is often assumed, without evidence, that it begins in nervous tissue.

The illustration from the case of hemiplegia was, as to its pathology, very roughly handled. We must carefully distinguish betwixt direct and indirect pathology. The lesion on which, so to speak, symptoms directly hang, is often very indirectly produced. The distinction betwixt direct and indirect pathology is necessary for precision in prognosis and in therapeutics.

There are very few nervous diseases in the sense that the essential elements of nervous organs, cells and fibres, go wrong primarily; in most cases they suffer indirectly. For precision in pathology, and, consequently, in therapeutics, we do not think of nervous organs as being made up solely of nervous elements. The ingredients of a nervous organ are not only nerve cells and fibres, but also the subordinate elements, bloodvessels and connective tissue. And nearly all diseases of the nervous system of which there is a known morbid anatomy are diseases beginning in the subordinate elements; the nervous tissues are innocent, but suffer. Most of them are not in a strict sense nervous diseases at all Hence a study of pathology corrects specialism. To take but one case: the commonest nervous system is an arterial affair. Hemiplegia, in the vast majority of cases, is owing to blocking up of a diseased artery or to rupture of one. Nerve tissue is not here in fault, but suffers. It deliquesces (as in softening), or is smashed up by irruption of blood. A man's nerve tissue does not begin to soften; it is often locally starved because its arterial supply is cut off—it is boycotted. If a man can take care of his arteries, he need have but little fear of hemiplegia and apoplexy. His nervous tissues will take care of themselves. If we could conceive a man so badly educated and so curiously minded that he knew nervous symptoms well, and nothing else, he would, if he made post-mortem examinations, become despecialised. He would find that he must start anew by studying cardiac, arterial, and renal diseases, syphilis, gout, rheumatism, and so forth. Out of that new study he would get a reasonable basis for prognosis, and for the care of his patients. In a word, he would find that the pathology of most nervous diseases was indirect, and would cease to take a merely nervous view of them.

The best illustration of indirectness of pathology is given by that most important clinical group of cases, syphilitic affections of the nervous system. Without denying that syphilis may primarily affect nerve-tissue, what I only feel sure of is that it begins in subordinate tissues of nervous organs. The most nearly direct method of "attack," if I may use the word, is when a nerve-trunk is the seat of syphilitic disease; but in other cases the process is indirect. Thus the commonest kind of so-called syphilitic hemiplegia depends directly on local softening of the brain, and indirectly on syphilis. This is an excellent illustration, showing how pathology gives precision to therapeutics. What a man has really to treat, if he is trying to cure a patient of syphilitic hemiplegia of this kind, is "local softening of the brain," not syphilis. The order is this: a man has a chancre; he gets rid of it, and of subsequent secondary symptoms. Months or years later, when apparently well, except perhaps for headache, some of his cerebral arteries are becoming syphilitically diseased, and then one unfortunate day a branch is blocked up, and he becomes hemiplegic. A very little change happens that day, although the consequences are grave; but for that little seeming accident there has been long, slow, insidious preparation. The syphilis is slow, the thrombosis is rapid. This case for treatment, so far as the hemiplegia is concerned, is as certainly one of local softening of the brain as hemiplegia from ordinary embolism is. To call it syphilitic hemiplegia is all very well, but to think of the paralysis as being a direct result of syphilis is crude pathology.

Next as to therapeutics. Suppose the patient gets rapidly well under iodide of potassium, should we say we had cured him? There are the facts that he is syphilitic, that he took the iodide, and is now well again. No one denies this sequence. But, then, it so happens that there is another fact. It is quite certain that some hemiplegic patients get well without any drugs whatever. Whether a patient recovers from hemiplegia or not is a question of the size of the lesion. Those who make post-mortem examinations do not invoke shrinking or disintegration of the plug, or re-establishment of collateral circulation, because they know that they find holes in the motor tracts of patients who have recovered from hemiplegia—the patients got well, were not cured. So that the hypothesis that the iodide cured the patient is not warranted by facts. Of course, we should treat the patient for syphilis, for, besides more obvious reasons, there is the strongest presumption that other cerebral arteries are diseased, and we may rid them of disease. If the paralysis be transitory, we go on treating the patient for syphilis, to prevent further paralysis. Everybody has a well-grounded faith in treatment of syphilis—or of its recent effects, at any rate. But I submit that if we could sweep away every vestige of syphilis by drugs, we should not, by so doing, cure the hemiplegia. It is easy to let ignorance stand to us for knowledge. We may believe we have cured our patient by drugs, because we do not know that hemiplegia will pass off without the use of any. But confidence is not always a sign of sagacity, but may result because we have not made numerous post-mortem examinations. In the case instanced, there is a plug in the vessel, and consequent local softening. For drugs to do anything towards ridding the patient of his hemiplegia, they must help to get out the plug and to restore starved nerve-tissue. Now, as a matter

of fact, there is in these cases actual destruction of nerve-tissues. If we could look into the man's head we should see that a part of his brain is boycotted. We cannot get at it by drugs.

There is another kind of so-called syphilitic hemiplegia, essentially unlike the one already mentioned. The facts are that a man, the subject of syphilis, has pain in the head for weeks—the best time for anti-syphilitic treatment—significant of the formation of a cortical gumma. One day he has a convulsion, very often beginning unilaterally, and after it he is temporarily hemiplegic (sometimes monoplegic). The process by which the hemiplegia results from syphilis is a doubly indirect one. No one supposes that the gumma discharges; but that nerve-cells round about it do. Thus, the stages are—(1) formation of a gumma; next (2) induction of instability by nerve-cells, exactly as by a glioma, possibly by a sort of encephalitis; then (3) sudden excessive discharge; and (4) consequent hemiplegia.

Syphilitic paralysis of a cranial nerve, and the two kinds of syphilitic hemiplegia, are utterly different in the pathological changes on which the symptoms directly depend, although syphilis is respectively the direct, the indirect, and the doubly indirect cause of them.

There is a class of cases of nervous disease—the neuroses—of which the pathology is unknown: chorea, epilepsy, insanity, neuralgia. In these diseases, little or nothing definite has, according to most authorities, been found post-mortem; and, curiously, the fact that nothing is found used to be considered proof that there was nothing to find. The statement that we do not know what there is in a particular disease, is sometimes taken to be equivalent to saying that there is nothing. We call the neuroses functional affections—a term, I submit, which should be kept for physiology. There can be no alteration of function without some material change. A man who does not make post-mortem examinations may look on slight and transitory local paralysis as not depending on a material change, but if he did make such examinations he would not hold that hypothesis. I repeat that we do not know the pathology of the neuroses. But now comes the curious point. We speak most confidently of the inheritance, interchangeability, and fundamental community of pathological character of those very diseases of which the ascertained morbid anatomy is nothing, or next to nothing. Thus there is assumed to be a community of nature betwixt epilepsy and insanity. It may be so. For my part, I have not heard of any facts tending to prove anything of the kind. The evidence adduced goes only to prove that many epileptics become insane. The neuroses are spoken of confidently as being nervous diseases in the sense that the pathological changes begin in nervous tissues. Where is the proof when we know nothing of their pathology? There is no proof. Again, pathology prevents our ideas on this subject being out of focus. Suppose a man has epilepsy, or paralysis, or chorea, and suppose that all his relations had the nervous symptom or disease, hemiplegia; is there any proof that he inherits a tendency to a nervous affection—that his epilepsy is owing to his nervous tissues *beginning* to go wrong? Not the smallest; because the hemiplegia is owing to arterial changes. If the family history in such a case tends to prove anything, it tends to show that the pathology of the patient's epilepsy is primarily arterial, and only secondarily nervous.

There is a metaphysical pathology. The cases are those on which we either do not obtain post-mortem examination, or find nothing post-mortem. It is rather difficult to define metaphysics. Some people call psychology metaphysics; some people call anything very difficult and complex about mind and body metaphysics; some use it merely as a term of abuse. It is, I think, a great pity that some metaphysics is not taught to students before they enter the profession. This may seem a strange remark, but the reason for making it is not to urge that they should be metaphysical, but for the diametrically opposite reason that they should be less metaphysical. It is a mistake to suppose that those who write books on metaphysics are the most metaphysical. They have, at any rate, the knowledge that they are dealing with metaphysics.

A good deal under the guise of practicality is pure metaphysics. There was once a man who could conceive an abstract Lord Mayor. The conception he had, so he averred, had neither head, arms, legs, nor corpulence: it was not an image of any particular Lord Mayor, nor a fusion of several, but an abstract Lord Mayor. Well, we think this metaphysician was too confident in his powers of conception. But do we not imagine ourselves capable of the same kind of marvellous feats? Let us look at a case of aphasia. A man does not speak, and yet can understand what we say to him, and can think—on ordinary things, at any rate. These are the facts; no one disputes them. Now comes the metaphysician, who proffers the explanation that the patient has lost words, but retains the memory or ideas of words. There are, it seems, words, and also memories or ideas of words, which latter, somehow, are not words. Now, what is an idea of a word which is not a word? It is, like the abstract Lord Mayor, simply nothing at all.

We should deal with the difficult and the complex in as realistic a manner as we do the simple. The hysterical patient, who is said to have paralysis of the will, has some material change. What it is we do not know; and we never shall know, if we be content with metaphysical explanations, which in one sense explain everything, but really explain nothing. I have long expressed the opinion that, for the scientific study of diseases, we should regard them as examples of Dissolution—using this term as the opposite of Evolution. In this way we shall avoid the errors of confusing the psychical with the physical, and shall steer clear of metaphysical explanations.

Case of Remarkable Injury to the Skull.—Dr. Drysdale, writing (February 6) from Otago, New Zealand, to the *Australian Med. Journal* for February 7, relates the case of a man from whose skull a portion, measuring three inches and a half by a quarter of an inch, had been carried away, on January 4, by a circular saw. His pulse was very feeble, but otherwise he showed no signs of collapse; and after the edges of the scalp-wound had been drawn together by adhesive plaster, he was able to walk home, nearly a quarter of a mile. Two or three hours after his pulse was stronger and 90, his temperature normal, and his condition altogether improved. Some lint soaked in tincture of benzoin had been laid over the plaster, and the head firmly bandaged. On the last day of January the lint fell off, and the wound was found entirely cicatrised, without a drop of pus having been visible. The man was about forty-five years old, and his head was perfectly bald. He had always been of singularly temperate and moderate habits, and is of a placid disposition, and of an unexcitable and phlegmatic temperament.

Death from Chloroform.—Dr. Kinloch, of Charleston, relates in the *Philadelphia Med. News*, August 5, a case of death from chloroform, being the first which had occurred to him during a large practice of thirty years, although, as the general rule, he employs this agent in obstetrical and surgical practice. Indeed, in this case he doubts whether the death can be said to be solely due to chloroform—fright, terrible anxiety, a peculiar nervous organisation, and an exalted moral sensibility, probably having had much to do with it. The lady was forty years of age, thin and anæmic, had been ill for some months, and was found to have a lateral fissure of the cervix uteri. She had long been under palliative treatment, and now applied to Dr. Kinloch for surgical aid, which, although regarding her as a rather bad subject for an operation, he consented to afford. She was excessively sensitive as to exposure, seemed alarmed, and is said to have had a presentiment of death. About three drachms of chloroform had been administered in a funnel-shaped napkin, but before the operation could be commenced the patient exhibited alarming symptoms, and death rapidly supervened. In the editorial comments upon the case the practice of administering chloroform in a napkin is strongly reprobated; and the hypodermic injection of brandy employed as one of the means of resuscitation, although so frequently resorted to, is pronounced to be bad practice in cardiac failure from chloroform, ether, chloral, and other derivatives of alcohol—all these after the period of excitement causing cerebral depression, and brandy being only synergistic to the chloroform vapour. As in this case the heart and lungs laboured, the superficial venous trunks being greatly distended, the subcutaneous injection of amyl nitrite or atropia would have served a more useful purpose. In this case the public press has endeavoured to get up a cry against Dr. Kinloch, but he has been warmly supported by the South Carolina Medical Society

ORIGINAL COMMUNICATIONS.

THE CAUSES OF TINNITUS AURIUM.

By P. McBRIDE, M.D., F.R.C.P.E.(a)

THE symptom to which I propose to call your attention is very common, and sometimes extremely distressing. While one person is slightly, if at all, inconvenienced by its presence, another has his existence made so miserable that he is tempted to end a life which has become unbearable.

There is a form of hallucination which is by many authors classed as tinnitus. I allude to the hearing of various melodies, or of animal and even human voices, which have no objective existence. Brunner(b) and Hartmann,(c) however, regard these phenomena as psychic in their nature, and due to irritation of the higher cerebral centres. That such is the case is evident; but whether this irritation may not be produced by stimulation of the peripheral extremity of a sensory nerve—more especially the auditory—we must, I think, leave an open question, although the first-named author expresses himself very decidedly against this view.

While not committing ourselves to any definite hypothesis concerning the production of this rare form of tinnitus, let us turn to a consideration of less obscure varieties.

The sounds described by sufferers vary greatly in character. To use the language of Sir Wm. Wilde,(d) "Persons from the country or rural districts draw their similitudes from the objects and noises by which they have been surrounded, as the falling and rushing of water, the singing of birds, the buzzing of bees, and the waving or rustling of trees; while, on the other hand, persons living in town, or in the vicinity of machinery or manufactures, say that they hear the rolling of carriages, hammering, and the various noises caused by steam-engines. Servants almost invariably add to their other complaints that they suffer from the ringing of bells in their ears; while in this country, old women, much given to tea-drinking, sum up the category of their ailments by saying that all the kettles in Ireland are boiling in their ears. The tidal sound, or that which we can produce by holding a conch-shell to the ear, is, however, what is most frequently complained of."

Perhaps the division, proposed by Dr. Woakes,(e) into tidal, rushing, pulsating, and bubbling, is as accurate and comprehensive a classification as the subject admits. Brunner(f) has noticed a clear ringing note as the result of violent stimulation of the auditory nerve either by loud sound or electricity. In one patient he could produce this subjective phenomenon by touching a granulation which grew from the promontory in which is contained the first turn of the cochlea. He therefore suggests that the auditory nerve may react as a whole, producing the sensation of a high metallic sound, just as, in the case of the optic nerve, electric stimulation, pressure, and section are known to produce sensations of light.

In cases of ear-disease, also, where the stapes is exposed to view, touching it with a probe is followed by a violent ringing in the ear.

The opinion is still held by many that the most common cause of tinnitus aurium is to be sought in hyperæsthesia of the auditory nerve. Now, while quite readily admitting that this may be a predisposing element, it is difficult to believe that it is ever an exciting cause. Hyperæsthesia of the nerves of hearing no doubt occurs, but probably seldom without the whole nervous system being similarly affected. Where it does exist, it is possible that the arterial and venous currents either in the labyrinthine or adjacent vessels may be perceived by the over-sensitive nerve. Hyperæsthesia means that stimuli are readily conducted by the nerves, and widely diffused in the ganglia; but it does not imply that the nerves can convey impressions which have no existence.

It seems perfectly obvious that tinnitus must arise from a stimulus, either applied to the auditory nerve or conducted by other channels to its centre. Stimulation of the former may be, and under ordinary circumstances always is, due to vibration of the fluid contents of the labyrinth. Occasionally pathological conditions exist, which cause direct pressure on the nerve-trunk, the result of such pressure being, probably, first stimulation, and then paralysis. The auditory centre may also be reached through nerves of common sensation, as in those cases where subjective auditory phenomena are due to the presence of carious teeth.

Having, then, arrived at the conclusion that in every case some other factor besides hyperæsthesia of the auditory nerve must be sought, we shall consider possible causes more in detail. Abnormal conditions of the organ of hearing are probably the commonest causes of tinnitus. Any foreign body in the meatus is liable to produce the symptom in question. The mass may be large or small, it may be composed of wax, epithelium, fungus, or the products of an eczema. In these cases, I believe the actual cause of tinnitus is to be sought in one or more of the following factors, viz.:—1. Slight vibrations communicated to the drum membrane by contact with the substance; 2. Pressure on the drum membrane communicated to the stapes, and producing a change of tension in the labyrinthine fluid; 3. Pressure on the walls of the meatus, causing vascular changes, and possibly murmurs audible to the ear in which they occur.

I am aware that this statement is opposed to the views of Dr. Woakes, who considers that the tinnitus in those cases is produced by reflex spasm of the tensor tympani excited by the foreign matter. I fail, however, to see the necessity for such an hypothesis.

It is in middle-ear disease, with imperforate drum membrane, that we most frequently meet with tinnitus aurium. In such cases the symptom is usually ascribed to one or more of the following causes:—1. Abnormal conditions of the intrinsic muscles of the tympanum; 2. Vascular changes; 3. Increased intra-labyrinthine tension; 4. The presence of free fluid in the tympanum. Each of these we must now consider separately. There can be no doubt that in certain cases spasmodic contraction of the intrinsic muscle may be perceived as a sound by the ear in which it occurs. Gottstein(g) describes a case where tinnitus was present with blepharospasm, and in which he felt justified in concluding that the former symptom was produced by tetanic contraction of the stapedius muscle. In this case pressure on the mastoid process temporarily stopped the sound, which is explained by Gottstein on the hypothesis that stimulation of a sensory nerve may have an inhibitory influence on muscle-contraction. We shall see, however, that another author holds a different opinion as to the etiology of those forms of tinnitus which can be temporarily arrested by pressure on the mastoid and spinal regions.

Spasm of the tensor tympani may produce subjective auditory phenomena, partly by causing the sound of muscle-contraction, and partly by forcing the stapes inwards and increasing the intra-labyrinthine tension. Inflammatory shortening of the tendon must of course produce the last-named effect also.

While prepared to admit that a tetanic condition of the middle-ear muscles may be a cause of subjective auditory phenomena, I have difficulty in accepting such an explanation as alone sufficient in cases where tinnitus lasts without intermission for months and years. It is difficult to understand why the middle-ear muscles should become the seat of such a rare lesion as permanent spasm, unless perhaps under certain conditions, not yet defined, their contraction places the ear under the most favourable condition for the fulfilment of its function, just as we frequently meet with spasm of the ciliary muscle in hypermetropia. As to paralysis of the intrinsic muscles of the middle ear—a condition on which Mr. Field,(h) among others, has laid considerable stress, I can only say that its existence has to be proved before we can describe it as a frequent cause of tinnitus.

Vascular changes in the tympanum and labyrinth no doubt are a very common cause of noises in the ears. Many authors consider that where the vessels of the middle ear are hyperæmic the pulsation of the arteries and the rushing of the venous blood may be perceived as tinnitus aurium. Whether the small vessels of the drum-cavity and its membrane cause vibrations ample enough to produce audible sounds seems doubtful; but it must be remembered that a small arterial

(a) Read before the Medico-Chirurgical Society of Edinburgh.
(b) *Archiv of Otology*, ix., page 75.
(c) "Die Krankheiten des Ohres," page 47.
(d) "Aural Surgery," page 83.
(e) "Deafness, Giddiness, and Noises in the Head," chap. vii.
(f) *Archiv of Otology*, page 57.
(g) *Archiv für Ohrenheilkunde*, vol. xvi., page 61.
(h) "Diseases of the Ear," page 256.

twig passes over the foot-plate of the stapes, and its pulsations may thus be communicated directly to the perilymph. Then again, recent researches have established the existence of an anastomosis between the tympanic and the labyrinthine circulation, so that it is evident that changes in the one must more or less influence the other.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASE OF PROSTATIC CALCULUS, WITH PROFUSE AND CONTINUED HÆMORRHAGE — SEVERE URETHRAL FEVER—RECOVERY, AFTER MEDIAN LITHOTOMY.

(Under the care of Mr. HENRY MORRIS.)

[From Notes taken by Mr. WYNTER, the Dresser.]

Previous History.—Edmund L., aged forty-four, a soldier, had for six years been the subject of pain in each groin just before, during, and for a little while after micturition. For the same length of time, too, he had experienced frequency of micturition, and occasional hæmaturia. He had been under medical treatment, and had been sounded several times, but no stone could be detected, nor had any calculous matter passed per urethram. For a fortnight before admission the pain increased, and the calls to pass water were much more frequent than ever before; the urine also, which had not previously been particularly dark or thick, became "as thick and dark as treacle." At times, too, he had incontinence of urine during this fortnight. In this state he applied at the out-patient department on December 15, 1881, and was seen by Mr. Clark, who sounded him, and detected a calculus fixed just in front of the neck of the bladder. The patient had the appearance of having lost large quantities of blood, and he was urged to come into the hospital at once; but this he refused to do. For the next two days the hæmorrhage continued unabated.

Condition on Admission.—On the evening of December 17 he was admitted, in a very exhausted state. Efforts at micturition, attended with much straining, were made every half-hour, or oftener; pure blood was constantly trickling from the urethra, and passed in quantity at some of the attempts to micturate. Severe and almost constant pain in the groins and along the urethra was complained of.

He was seen by Mr. Morris soon after admission. His pulse was hæmorrhagic, his skin cool and clammy, and he was greatly depressed mentally. On sounding him, no stone could be detected, but just before the sound reached the bladder its point deviated considerably to the left side, and then passed on without resistance.

He was ordered a draught containing half a drachm of the liquid extract of ergot to be taken every hour, and a pill of half a grain of solid opium every third hour; an ice-bag was applied to the hypogastrium, and another to the perinæum. This treatment had the desired effect of reducing the hæmorrhage; but still, during the next three days the urine continued of a bright red colour from the uniform admixture with it of blood. There were no clots in the urine; and no blood other than what was contained in the urine escaped from the urethra during these three days.

The urine was carefully examined, but no evidence of villous disease or of other growth was revealed by the microscope.

His pain almost entirely ceased with the diminution and lessened frequency of straining, under the influence of opium; but some pain continued to be felt immediately before and after micturating.

December 20.—Mr. Morris again sounded him, and this time felt a small stone firmly fixed in the prostatic urethra, close to the neck of the bladder, and chiefly to the right of the median line.

21st.—The patient had gained strength and nerve, and was altogether improved in condition. There was, therefore, no longer need to delay the removal of the calculus by median lithotomy, which was accordingly done. The stone was small, ovoid, and concavo-convex in shape; the convex rough surface was that which had been imbedded in the prostate; the concave smooth surface had presented in the urethra, and the urine must have washed over it as it was voided; a small portion of one extremity of the stone was chipped off by the bistonry at the operation. The composition of the calculus was in chief part phosphate of lime, and was very soft and friable.

After the operation the urine soon became quite clear of blood, but some pus and mucus were contained in it. For three days it was continually flowing through the perineal wound. On the fourth day he began to regain control over the sphincter vesicæ, and by the seventh day he was able to hold his urine for at least an hour, and a small quantity was passed through the penis. On January 5—*i.e.*, fifteen days after the operation—he could retain his urine two hours comfortably, and passed about half of it by the urethra. Pus and mucus were still present in it.

From the second day after the operation the bladder was daily washed out with a weak solution of nitric acid (one minim of the dilute acid in one ounce of water).

On January 7 (*i.e.*, the seventeenth day after the operation), at 3.25 p.m., about four hours after the washing out, and twenty minutes after micturating as usual, he was seized with a rigor, and his temperature went up to 101·6°. The rigor lasted nearly half an hour, and was very violent. At 3.45 p.m. the temperature had reached 104·4°; an hour later it was 104·6°; subsequently it was taken every quarter of an hour till 10.15 p.m., at which time it had, by steady stages, dropped to normal; and at 10.45 p.m. it was subnormal at 98·4°. Throughout the night and first half of the next day (viz., January 8) the temperature continued subnormal, except on two occasions, when it rose to 98·8°; but at 1.30 p.m. it was 101°, and so continued until 4.30 p.m., when it fell to 100°, to rise again at 5.30 p.m. to 100·4°, and at 6.30 and at 7.30 p.m. to 102·8°. After this, by steady drops, it again went below normal. On the 9th, at 7.30 p.m., the temperature was 100·2°, and during the evening of that day and the early hours of the following morning it remained between 99° and 100°. On the 10th, at 7.30 a.m. it became subnormal, and remained below 99° for twelve hours, when it rose again at 10.30 p.m. on the 10th to 100°. Throughout January 11 it scarcely rose above 99°, but at 2.30 a.m. on January 12 it was 99·8°. At 3.30 a.m. it was normal, nor did it again after this, at any time during his convalescence, rise higher than 99°. Thus he had a very sharp and typical attack of urethral fever, coming on on the seventeenth day of convalescence, and without any apparent cause. During the initial rigor two ounces of brandy in hot water were ordered, and immediately after the rigor he took five grains of quinine in one ounce of lemon-juice. Two similar doses of quinine and lemon-juice were given at intervals of three hours, and subsequently a mixture of quinine and nitric acid (containing one grain of quinine in each dose) was continued.

January 10 (twenty days after the operation).—Three-fourths of the urine was passed by the natural way. By the 12th only a few drops escaped by the wound; but on the 17th, whilst micturating, the penis appeared to become distended, and the urine poured through the wound again. The next day it passed chiefly by the penis, and so continued to do afterwards.

The man was discharged from the hospital on February 4, convalescent, and with complete control over his bladder, passing urine about five times in the twenty-four hours. The wound was not, however, quite healed, and a few drops at each act of micturition escaped through it. The urine remained neutral, and contained still a little pus and mucus.

For six weeks after leaving the hospital a urinary fistula continued, and he frequently felt a chill during micturition, but in all other respects he was quite well. On March 30 the wound was soundly closed, and though the urine still contained a little pus and mucus, and the walls of the bladder were thickened and rugose, his urinating functions were perfectly natural.

Remarks (by Mr. Morris).—The most interesting feature in this case, and the one which gives it a very exceptional character, is the severe and repeated hæmorrhage which marked its later stages. The recurrence of slight hæmaturia, of pain on micturition, and of irritation at the neck of the bladder, over a period of six years, points to a slow formation of the calculus; and though even at the end of

this time it was but of very small size; its position, so near to the urethral surface and the neck of the bladder, made it a cause of obstruction, and explains the straining which appears to have been requisite to expel the urine during these years. The profuse hæmorrhage which set in during the fortnight before admission was doubtless the result of ulceration in the prostatic portion of the urethra; and this ulceration led at length to the complete exposure of one surface of the calculus, and thus to its detection by the sound. That its existence was not ascertained by the previous soundings is accounted for by the stone having been entirely imbedded in the substance of the prostate at the time they were made. On admission some unilateral enlargement of the prostate was clearly demonstrated, but the surface of the calculus was masked by blood-clot, and thus no characteristic click was communicated through the sound. It was thought better, in the absence of this symptom, to resort to medicinal treatment and the local use of ice, so that for three days no instrument was introduced. On the subsidence of hæmorrhage, there was no difficulty in getting the sensation and ring of the stone, and in ascertaining that the calculus was so firmly fixed as not likely to be detached from its bed and pushed backwards into the bladder. The presence of pus and mucus in the urine, together with the thickened and rugose walls of the bladder, show that the ordinary effects of long-standing obstruction and irritation had been produced. The attack of urethral fever was as sudden as it was characteristic, and for a time it gave an alarming aspect to the case. The length of time which the median perineal wound took to heal was somewhat unusual. No other incision would have been so convenient as the median in this case. The early period after the operation at which the patient regained control over the sphincter vesicæ was due to the incision not having been prolonged through the neck of the bladder.

This early restoration of the sphincter might possibly lead to an opinion that in cases of tubercular or other chronic forms of cystitis, where so-called cystotomy is practised for the purpose of relieving frequent and painful micturition and of putting the bladder into a state of rest, the median incision is not well adapted. But I am not disposed to take this view, because in a case in which I recently performed the median operation for cystitis secondary to chronic prostatic abscess, complete relief from painful micturition was afforded, and maintained for six or seven weeks. At the end of this time the man died from ulceration of the bladder and advanced surgical kidneys: and at the post-mortem examination it was found that there was no attempt at healing or closure of the wound, and that the incision through the prostatic urethra had not extended so far back as the neck of the bladder. It would thus seem that the occasional indisposition of this wound to close, together with the fact that, provided the prostatic urethra is opened, division of the sphincter vesicæ is not requisite to procure relief from frequent and painful micturition, would tend to show that the median operation may prove better than *lateral cystotomy* in the treatment of obstinate cases of chronic cystitis.

FOREIGN BODIES IN THE AIR-PASSAGES.—Dr. Weist, at the recent meeting of the American Surgical Association, thus terminates a paper on this subject:—1. When a foreign body is lodged either in the larynx, trachea, or bronchi, emetics, errhines, or similar means should not be employed, as they increase suffering and do not add to the chances of recovery. 2. Inversion of the body and succussion are dangerous, and should not be practised unless the windpipe has been previously opened. 3. The presence simply of a foreign body does not make bronchotomy necessary. 4. While this causes no dangerous symptoms, the operation should not be performed. 5. If it remain fixed in the trachea or bronchi, as a general rule, bronchotomy should not be practised. 6. When symptoms of suffocation are present, or occur at frequent intervals, bronchotomy should be resorted to without delay. 7. When the foreign body is lodged in the larynx, there being no paroxysm or strangulation, but an increasing difficulty of respiration, from œdema or inflammation, bronchotomy is demanded. 8. When it is movable in the trachea, and excites frequent attacks of strangulation, bronchotomy should be performed.—*New York Med. Record*, July 29.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, AUGUST 26, 1882.

THE SECTIONAL ADDRESSES AT WORCESTER.

THE Presidents of Sections at the recent meeting of the British Medical Association were very happily chosen. They were all men who are either well and widely known as practitioners and teachers of medicine or surgery, or who, having devoted themselves more especially to some particular department of our science and art, have achieved distinction in that; and all acquitted themselves well. Professor Humphry, of Cambridge, who most fittingly presided over the "Section of Anatomy and Physiology," observed that this, their fiftieth annual meeting, was the first occasion on which the Association had recognised Anatomy; and at the same time he congratulated them on not having divorced her from her twin sister Physiology. It was true, he remarked, that with the increase of growth and knowledge Anatomy and Physiology had been diverging more and more during the last forty or fifty years, but it would be a great error to suppose that this divergence rightly or necessarily implied a disjunction of the investigation of structure from that of function. The two must ever proceed together, and be supplementary each to the other. But while Physiology, so greatly the younger sister of the two, had been progressing with large and rapid strides, and her kingdom seemed to be illimitable, Anatomy, which is concerned with the investigation of the, so to speak, coarser structures of the body,—with such investigation as can be carried out by the unaided eye,—had been carried on for centuries. It seemed, therefore, to have almost ceased to be a progressive science. But it was and must ever be an essential, a fundamental feature of medical knowledge and of medical education; and the degree to which it suffered in loss of interest from not being progressive, was more than made up for by its practical importance. Professor Humphry, however, well pointed out that if anatomy has greatly lost its interest, much of that loss is the fault of its teachers. Books on anatomy commonly contain little or no allusion to the practical import of the several structures and their disposition, and the methods of description have usually no

relation to this point. And the anatomist does not seem sufficiently alive to the value of that knowledge of mechanical adaptation, of morphological relation, and of developmental phenomena, which is the proper associate of anatomy, and upon which its quality for mental training not a little depends. "Too often," the Professor said, "the bare, naked facts are marshalled in solemn dulness one after another, and are crammed down the reluctant throat of the student, without spice or flavour of any kind, not to be digested, but to be given up again, much as they went down, under the examination squeeze." He enlarged upon the value of anatomy *per se*, and its capabilities—when properly and fully taught—"to excite interest, to nurture inquiry, and to strengthen the mental faculties, by virtue of the practical and physiological expositions which are its legitimate accompaniments"; and he gave some illustrations of the directions in which the study and the teaching of anatomy may be made more interesting and more profitable. Of physiology, its value, its aims, its wide domain, and its fascinations, he spoke more briefly; and he concluded his excellent address with an eloquent and touching reference to the loss which biological science, the world at large, and the University of Cambridge in particular, have sustained by the recent untimely death of Frank Maitland Balfour.

Dr. Clifford Allbutt, the President of the Section of Medicine, addressed his audience on "Modern Freedom of Thought, and its Influence on the Progress of Medicine." After an eloquent description of how freedom had been won by our great workers and thinkers, he said, "during the last half-century diseases have been separated and described anew; physiology and pathology—one science in two aspects—have revealed to us the seat and form of injury, inflammation, abnormal growth, and decay; the very nature of morbid processes has come to light side by side with the growth of our knowledge of the normal; chemistry has armed us with improved medicines, and experiment is testing their powers and affinities." But what, he asked, are the fruits of this new harvest? Is the old saw still true, that "Medicine is a meditation upon death"? Our ancient knowledge, our old therapeutics, have been overthrown; and to not a few it may have appeared that therapeutics are vain, and disease incurable; and indeed, in many of our most learned medical naturalists there has arisen "a noble scorn of shallow doctorings and druggists' formulæ, and too sweeping a condemnation of all medicine." But let us abide by the broad truth that, ultimately, *scientia et potentia humana in idem coincidunt*. Light is arising. Many are tracking, like sleuth-hounds, the causes of morbid processes, and surely learning why a kidney shrinks, and why a heart or lungs decay. Our children, "having forgotten that diseases were ever regarded as separate entities to be ejected from the body, and learning to discover and to deflect morbid currents at their springs, will not await the appearance of these irreparable mischiefs, but will prevent their beginnings, and esteem him disgraceful as a physician who allows such state to become prematurely established." We have to work out the genesis of disease; and the genetic affinities of diseases—their origins, parent stems, and alliances, as well as their issues. Before we can have complete therapeutics, we must have recognised and constructed the science of comparative nosology. Our readers must turn to the Address itself to learn how Dr. Allbutt enforced these teachings and suggestions.

Mr. Augustin Prichard, of Bristol, in his Presidential Address in the Section of Surgery, took his hearers back to the circumstances and practice of the medical men of fifty years ago. He briefly recalled the toils and sufferings attendant on the practical study of anatomy in the days before the passing of the Anatomy Act—toils and sufferings in which he had shared, not directly, but vicariously through an uncle; and remembered being shown a heavy bunch of huge keys, all ticketed, that were duplicates of the keys to all the churchyards of Bristol and its neighbourhood—a most curious and significant "property" of a dissecting-room in those days; and worthy of being preserved with religious care. Like Mr. Stokes in the Address in Surgery, Mr. Prichard spoke of the wonderful change in practice as regards blood-letting; but he thinks, and we agree with him, that we are too much afraid, nowadays, of any loss of blood, and that we have too much lost sight of the value of that remedial means in certain cases and conditions. He also expressed the opinion that fashion and the opinion of an outside public, uneducated and ignorant as to medical matters, have led to too great a neglect of counter-irritation of various forms. The change of practice in this respect has not been nearly so great and complete as it has been with regard to blood-letting, though counter-irritation was as greatly abused; but the pendulum has swung too much in the opposite direction. Mr. Prichard—very justly and rightly, we think—warned surgeons against forgetting that rapidity in operating is still really of great importance. The immense boon of anæsthesia may lead to too great deliberation and slowness of procedure in operating; and we quite agree with Mr. Prichard in holding that the shorter the time a patient is under the influence of any anæsthetic and in the hands of the operator, the better on all accounts.

Dr. Alfred Carpenter, the President of the Section of Public Medicine, addressed his hearers on the "Early Work of the Association in Preventive Medicine." He stated that when Sir Charles Hastings, in 1832, founded the Provincial Medical Association, he put forth as a *raison d'être*, "the investigation of the modification of endemic and epidemic diseases in different situations, so as to trace their connexion with peculiarities of soil and climate, or with localities, habits, and occupations of the people"; and Dr. Carpenter claimed the object stated in that paragraph as the principal lever by which the success of Sir Charles's movement has been achieved. He thought the sanitary work directly performed by the Association in its early years, or at least some of it, has been undeservedly forgotten; and he confined himself to giving a brief and interesting historical review of it. In the course of it he gave us the very important and satisfactory information that the Royal Commission, upon which he had had the privilege of acting, had unanimously recommended that the machinery for efficient vaccination shall be altogether separated from the Poor-law management, and placed in the hands of the sanitary authorities.

In the Section of Ophthalmology, the President, Mr. Vose Solomon, of Birmingham, spoke of the foundation, in 1880, of the Ophthalmological Society of Great Britain as the most important public movement in relation to the speciality of ophthalmology that has taken place in this country in the last half-century. The large attendance at its meetings, the thoroughness, and often originality, of the work brought forward, and the animated discussions, all augur favourably, he thinks, for the creation of a British School of Ophthalmology. He is not apparently a believer in "uniformity"; and certainly, if ever the science of medicine becomes one all the world over, there will never be uniformity of practice, unless we get rid of the actuating influences of race, and of climate and other environments. Mr. Solomon very rightly recognised as a most important and valuable aid to the success of the new Society, and the advance of ophthalmology, the presence among them of the communication of papers by many physicians. "So long," he said, "as this happy combination continues in our Society, all danger of the prevalence of the narrowness of specialism will be avoided; indeed, it is

difficult to estimate the advantages that must accrue from an association of workers in a special department like our own, with scientific physicians versed in all the methods of physical investigation, and trained to the higher problems of physiology and pathology." Mr. Solomon then spoke of "Some Advances in Modern Ophthalmic Surgery," and of the subjects that were to be brought before the Section. We observe that he stated that the value of antisepticism in operations on the eye has still to be determined.

Otology arrived this year, for the first time, at the distinction of having a Section to itself, and the President of the Section, Dr. Laidlaw Purves, the Aural Surgeon to Guy's Hospital, of course congratulated his brethren and co-workers on this fact. His address deals very briefly with "Physical Diagnosis and Therapeutics in Aural Surgery." In physical diagnosis he does not see much hope of advance; but as regards the exact determination of functional changes, the prospect is, he thinks, much brighter. In order, however, to be able to determine exactly abnormalities of function, we must have some standard of the normal power. It is highly desirable, therefore, to arrive at determinations—of the acuteness of hearing; of the field of audition; of the range of audition; of the power of judging the direction of sounds; and of the recognition of timbre, and of the duration of impressions. When speaking of artificial aids when curative means fail, Dr. Purves was bold enough to hold out a hope of relief to the deaf mute. "Seeing," he said, "the strides which our knowledge of vibrations is daily making, and the astounding results obtained thereby, I see every reason to hope that some method of amplifying and rendering such vibrations visible to the eye may be devised, which may render his intercourse with his fellow-beings easy and profitable."

Dr. Hughlings-Jackson, who presided in the Section of Pathology, gave, as was to be expected from an observer and thinker of his force and reputation, one of the most striking and instructive of the addresses delivered during the meeting of the Association. He did not indulge in any retrospect, but started with the statement that "Pathology is the basis of every rational system of therapeutics." For rational therapeutics we must know what is to be treated; and to those who quietly, steadily, and laboriously are working at what may seem to be obscure pathological problems, steady advances in diagnosis and in rational therapeutics will be chiefly owing. He therefore urged upon practitioners the importance of post-mortem examinations, wherever and whenever they can get them—not mere examinations of dead bodies, but especially post-mortem examinations in cases the history of which was well known to them; though such examinations in emergency cases and in coroners' cases may also be very useful and instructive. Every man should be original—that is, he should think for himself. And he will have no trustworthy materials for such thinking on cases of living people unless he himself makes post-mortem examinations. "It is one thing to possess knowledge, and quite another thing to be possessed by that of other people." Medicine in practice is a very different thing from systematic medicine. For instance, a man may have learned very properly the symptoms of cerebral hæmorrhage, those of anæmia, those of epilepsy, etc., but when he comes to the bedside he finds the problem turned upside down. "There the question is not such as, 'Give me the symptoms of cerebral hæmorrhage, of anæmia,' etc. That is going from the necropsy back to the symptoms. The question at the bedside is, 'Here is a man in a fit—what is the matter with him?' That is looking from the symptoms to or towards the necropsy. No one is ready to answer the question unless he has seen or made many post-mortem examinations." This process of inversion is, Dr. Hughlings-Jackson observes, not exactly pleasant. But let a man persevere, though he may find himself put to confusion by the results of necropsies; let him persevere, and all will come right in time, or at any rate much clearer. Nevertheless, if a man wishes to be thoroughly comfortable in his diagnosis, and definite in his pathology, he should never make a post-mortem examination. Of course, Dr. Hughlings-Jackson would not have a practitioner a pathologist only, though he cannot be a good practitioner unless he be a pathologist. Every case is a departure from healthy states, and no one is fitted to begin the scientific study of diseased persons unless he know much of the anatomy and physiology of healthy persons. At the bedside of a patient we have before us an anatomical, a physiological, and a pathological problem. 1. There is alteration of structure of some organ—an anatomical problem. 2. There is alteration in the proper functional activity of that organ—a physiological problem. 3. There is a change in nutrition of tissues of that organ—a patho logical problem. Further, not only the organ diseased or most diseased must be considered, but also the rest of the patient to whom that organ belongs, or did belong (for sometimes part of an organ is annihilated). And, still further, we must note our patient's inherited tendencies, and examine him to see how they are particularly evidenced in one branch or twig of a family tree. Dr. Hughlings-Jackson admirably and fitly illustrates all this teaching and the question of treatment by the consideration of cases and groups of diseases—hemiplegia, epilepsy, syphilitic affections of the nervous system, and the neuroses. He takes occasion to remind us, among other important things, that there are very few nervous diseases in the sense that the essential elements of nervous organs, cells and fibres, go wrong primarily; in most cases they suffer indirectly. The ingredients of a nervous organ are not only nerve cells and fibres, but also the subordinate elements—bloodvessels and connective tissue; and nearly all diseases of the nervous system, of which there is a known morbid anatomy, are diseases beginning in the subordinate elements; the nervous tissues suffer, but are innocent. Hence a study of pathology corrects specialism. A man finds by post-mortem examination that if he would understand nervous diseases he must study cardiac, arterial, and renal diseases, syphilis, gout, rheumatism, and so forth. Out of that study he gets a reasonable basis for prognosis, and for the care of his patients. Very many other points in Dr. Hughlings-Jackson's Address deserve special note, as his remarks on the assumed "inheritance, interchangeability, and fundamental community of pathological character" of the neuroses—chorea, epilepsy, insanity, neuralgia; but we cannot afford space for any further consideration of it here. We have placed it before our readers, and recommend them to read, mark, learn, and inwardly digest it.

EGYPTIAN OPHTHALMIA.

Among the things provided for the Expedition to Egypt, we read of a large supply of blue spectacles with side pieces of wire gauze. This provision is directed, naturally, against one of the most common risks of an Egyptian campaign—purulent ophthalmia. It does not appear whether these glasses are to be worn as a precaution, or only after the disease has been acquired. In all probability they will be served out, on the advice of the medical staff, as circumstances may seem to require. It is much to be wished, however, that the soldiers may not look upon their blue spectacles as an infallible security against a disease which depends as much upon general causes, such as getting chilled after exposure, whether necessary or careless, as upon the mere special irritation of the conjunctiva.

According to figures put together by Sir P. Macgregor (*Transactions of the Society of Medical and Chirurgical Knowledge*, vol. iii.), there were, in connexion with the military hospitals at Chelsea and Kilmainham, on December 1, 1810, no fewer than 2317 soldiers blind from ophthalmia, and that total did not include those who had lost the sight of one eye only. Not by any means all of that number had brought the disease back from Egypt direct. The troops returning from Egypt in 1801, after Sir Ralph Abercrombie's campaign was over, carried purulent ophthalmia with them to England, as well as to foreign stations. The disease was unknown in Europe—at all events, it had not been described—until after the Egyptian campaign; and the interesting fact to pathologists, and the discouraging fact to sanitarians, is that a disease arising *de novo* or spontaneously under the conditions of the Egyptian climate and soil, became in England, and in other western localities where those conditions did not exist, a specific contagious malady. Thus, in a space of nine months, from April to December, 1804, nearly three years after the return from Egypt, there were about 400 fresh cases of purulent ophthalmia in the Royal Military Asylum, and many hundreds of cases occurred for a good many years after. All traces of that Egyptian epidemic must have long since disappeared. A contagion which had only the conjunctiva for its habitat was not likely to acquire an enduring specificity. There is nothing specific in the disease in Egypt, and no one in that country puts it down to contagion. It is there a conjunctival purulent catarrh, which many persons, who have been similarly exposed, will acquire, but acquire independently of each other. Yet the same Egyptian form of "cold in the eye" may persist for years in countries where there is no glare, and no sand in the atmosphere, and no nightly chill following a scorching day. If it has not, as a matter of fact, persisted so long, or become so domesticated, as gonorrhœa and syphilis, that is chiefly because the conjunctiva is not the urethra or the glans penis. What, then, are the autochthonous conditions of Egyptian ophthalmia among European troops? No less able a surgeon and no less graphic a writer than the Baron Larrey has left us his observations on that subject ("Relation Historique et Chirurgicale de l'Expédition de l'Armée d'Orient," Paris, 1803). The memoir drawn up by Larrey, and communicated by him to the Institute of Cairo, appears to have been the first document formally treating of the malady. The most frequent and the most severe cases of the disease among the native population of Egypt occur in those of the poorer classes, who sleep almost naked on the ground in the open air, who are ill-fed, and who have no shelter during the day from the dust and the scorching sun. The causes among the troops may be enumerated as follows:—The broiling heat during the day; the glare from the white soil; immoderate use of spirituous liquors, and sexual excesses; the dust in the air entering under the lids and setting up irritation of the eyeball; above all, any check of the perspiration in suddenly passing from heat to cold; the cold and humidity of the nights in autumn and winter. It was observed by Larrey, and by English surgeons also, that the sudden suppression of diarrhœa was apt to be followed by ophthalmia, and *vice versâ*. Those of fair complexion were more liable than the dark. The right eye suffered much more than the left, Larrey's explanation being that the habit of lying on the right side brings that side most into contact with the humidity of the ground. The disease was most common after the rise of the Nile, when the nights were intensely cold and humid, but it occurred also in the spring and summer months. The French force sent down in March, 1801, to check the English landing at Aboukir, suffered severely, especially those who were enfeebled by wounds or had suffered from ophthalmia before, and those who were encamped along the shores of the lakes near Alexandria. During a period of two months and a half more than 3000 soldiers passed through the hospitals with the disease. The precautions against ophthalmia in Egypt are not by any means confined to the immediate protection of the eyes during the day. Larrey advises all the ordinary precautions against night-chill in general, and to sleep with a bandage over the eyes as well. As regards regimen and diet, the stomach, always tending to debility in a hot climate, should be sustained by tonics, such as coffee and a bitter infusion taken in the morning, and the eyes and the whole head should be bathed frequently, a little vinegar being added to the water.

The outbreak of ophthalmia among the French soldiers in and around Alexandria during the summer of 1801 was combated with the greatest success; it was the general experience also of the English surgeons in Egypt that the disease yielded, on the whole, readily to treatment, and only rarely left blindness after it. Contrast that result with the 2317 soldiers blind from ophthalmia who lived in or reported themselves to the military hospitals of England and Ireland ten years later! The reference to purulent ophthalmia in Egyptian reminiscences published about the year 1803 are not at all appropriate to the purulent ophthalmia imported into the home countries; the imported and specificated disease was much more severe in its effects at least. A remarkably close analogy in the case of syphilis was noted by Larrey. The French soldiers in Egypt contracted syphilis freely from the native women, the disease rarely presenting grave symptoms, and being easily cured by internal administration of mercury and by vapour-baths; but the same syphilis carried to France, and to western countries generally, was observed to become remarkably obstinate and difficult to get rid of. Larrey himself knew of several soldiers who left Egypt for France before their syphilis was cured, and who got rid of it only with the greatest difficulty, and after a long lapse of time. Doubtless the imported syphilis in the next and subsequent reproductions would have been equally intensified and inveterate. If any of our soldiers should have the misfortune to return from Egypt suffering from purulent ophthalmia, it ought not to be difficult to prevent its extension, in its severer form, among the garrisons at home. Isolation of all such cases—say at Malta or Cyprus, or on board ship, if not in Egypt itself—until the cure is complete, and the rigorous insistance upon separate towels and basins in barracks after returning home, ought to prevent any such plague of the eyes as followed the return of the last Egyptian expedition.

THE WEEK.

TOPICS OF THE DAY.

The results of M. Fourment's experiments, carried out in order to ascertain whether the salting of meat is a sure and certain method of destroying trichinæ, have just been published as a report to the French Academy. The experiments show conclusively that, although many chemists have expressed an opposite opinion, the salting of meats cannot be regarded as a safeguard against trichinosis. M. Fourment took a piece of meat in April, 1881, from some American salted meats examined at the Havre Docks, and found infested. This meat was imbedded in fine salt and placed in a flask, which was then hermetically sealed, and not opened till April, 1882. The meat was then well washed in water to remove the salt, and several mice were fed upon it, with the result that after death the intestines of the mice were found to contain sexually developed trichinæ. Several other experiments were subsequently made, which all showed that trichinæ were found alive and capable of reproduction after

the meat which contained them had been salted for at least fifteen months. Trichinæ may, M. Fourment remarks, die in salted meats as well as in any other situation, and thus the negative experiments published by distinguished observers may be explained; but the parasites may also live a considerable time without our being able to determine the length of the period after which death necessarily follows latent life. It is also pointed out that when the trichinæ penetrate the muscles they are perfectly free, and have no covering whatever to protect them, and a month or more elapses before they accept the situation, and coil themselves up to quietly await their chance of being eaten up by some other animal, which must occur before they can possibly develope into the perfect adult condition. But it is only at the end of three months that a fibrous cyst begins to form around them, and it is perhaps a year before the covering is sufficiently dense and impermeable to entirely protect it from the action of salt. The principal safeguard against trichinosis must still be looked for in perfect cooking. In no single case—and numerous experiments have been made—has heat failed to entirely destroy these parasites, and only those who neglect the precaution of thorough cooking (absolutely necessary in the case of all pig-meat and sausages) need be under any fear of their introduction into the system.

The outbreak of typhoid fever reported from Bangor is stated to have assumed most serious proportions, both in the town and the surrounding neighbourhood. Dr. Barry, who has been despatched by the Local Government Board to institute an inquiry into its origin, is understood to have condemned the water-supply of the town and its system of drainage. The hospital accommodation at the Anglesey and Carnarvonshire Infirmary and the Workhouse has proved utterly inadequate for the reception of patients; and the local authorities are reported to be discussing a proposal to establish tent-hospitals for the treatment of the numerous sufferers: but it is to be hoped that discussion either has been, or speedily will be, converted into action. The Grammar School, where the epidemic is believed to have broken out, has been closed for many weeks, and it has been decided not to open the various day-schools in the town. Much distress prevails, especially among the poorer classes, and the Bishop has placed himself at the head of a movement to raise subscriptions for their benefit. The Dean, who has been suffering from a slight attack of the fever, is nearly convalescent. The epidemic has extended to Llandegai, the model village near Penrhyn Castle, where it is also stated to have assumed a severe form.

Much has been made by anti-vaccinationists of the fact that, owing to departmental dissensions, an Act for compulsory vaccination to extend all over Switzerland has been rejected on an appeal to the suffrages of the people. Shortly explained, the facts are as follows:—The Act making vaccination compulsory in twenty-two cantons was passed by the Federal Chambers in January last, having been promoted by united action on the part of the Swiss Medical Commission. The law was promulgated on February 14 last, and was rejected by the people on July 30. It is, however, explained that the enormous majority of four to one realised by the *plébiscite* showed that some cause other than objection to vaccination lay at the root of such an overwhelming vote; and this cause was by no means opposition to vaccination, but to centralisation, and an expression of disgust on the part of the people at a fresh attempt to extend the authority of the federal officials at the expense of the cantonal executive councils and legislatures. As an instance, it is stated that in the Canton de Vaud, where vaccination has long been compulsory by cantonal law, the new federal law was rejected by the popular vote, with the approval of leading medical men. But in this canton vaccination will now be none the less compulsory, only it will have to be enforced, as heretofore, by cantonal law, and under the superintendence of cantonal officials. Moreover, it should be remembered that in Switzerland education is compulsory, and every child is bound by law to produce to the school authorities its vaccination certificate. It is clear, therefore, that although, as we have said, much to be regretted, the vote of the Swiss Republic in this matter is no sign that they have ceased to believe in the benefits which have resulted from vaccination.

An unsatisfactory state of affairs was recently made public at an inquest held by Dr. Thomas at Child's Hill, Hendon, on the body of a woman aged sixty-six years. Deceased had for nearly twenty years lived with a labourer named Blunt, employed by the Hampstead Vestry. They occupied the top front room of a cottage, situate in the Mead, a row of six-roomed cottages at Child's Hill. Blunt earned 15s. a week and perquisites; in addition, the deceased, a cripple, used to pick up rags and bones, which she sold, according to the man Blunt, for beer. A few days since she was taken seriously ill, and in spite of charitable aid—she was reported to be starving—died. Death was medically stated to have been due to disease of the liver and kidneys, but the room in which she existed and died is reported to have been in a most filthy condition, so that the coroner and jury remarked that, however possible such a state of affairs might be in up-town parishes, in a district like Cricklewood it was almost beyond belief. It was intimated to the coroner by those present in court that this was not the only case existing in the parish of Hendon, especially at the Mead, which required the serious attention of the local sanitary authorities; and it was further stated that in the immediate neighbourhood of the Mead laundry work was done for many London families, who sent their linen to Child's Hill to be washed, under the impression that in the country there was little chance of contamination. The coroner having promised to notify to the sanitary authorities the state of affairs existing at the Mead, the jury returned a verdict in accordance with the medical evidence.

It is extremely discreditable that a town of the size and importance of Nottingham should be unprovided with a public mortuary; but such seems to be the case. An inquest was recently held by the borough coroner on the body of a person named Benjamin Walter Roper, who had died in a lodging-house in one of the lowest districts of the town. Some suspicion prevailing that deceased had died from the effects of poison, a post-mortem examination was ordered, and this had to be conducted in an open yard at the rear of a beerhouse, for want of a public mortuary. The examination showed that death had resulted from heart-disease. The coroner read some correspondence, from which it appeared that deceased had been a surgeon, that he had lived among other places at Wakefield, and that, although he had died in poverty, the sum of £2000 and an annuity of £300 were awaiting him at Wakefield.

An outbreak of small-pox is reported from Gateshead. For some days many isolated cases were brought to notice, but nothing of an alarming nature occurred until the past week, when the epidemic showed itself in its most severe form in the thickly populated parts of the borough. There have also been several cases in Newcastle.

THE EXPEDITIONARY FORCE FOR EGYPT.

If any shortcomings have hereafter to be recorded in connexion with the arrangements for the force despatched to Egypt, the Army Medical Department will, at any rate, have to be exempted. The hospital arrangements are so

complete that if a fourth of the whole of the British troops employed in the expedition were to fall sick or be wounded, there would be bed and proper medical and nursing accommodation for all of them. Great care has been bestowed in selecting medical officers accustomed to the treatment of diseases incidental to tropical climates. In addition to trained men of the Army Hospital Corps, a strong staff of female nurses has been selected and sent out; of these latter some will be located at the base hospital at Cyprus, for the benefit of the sick and wounded who will be conveyed there from Egypt; others will proceed to the seat of operations; and a few will remain on board the hospital-ship *Carthage* in the Egyptian waters. It should be explained that with each division there are two field-hospitals and half a bearer company; the half bearer companies have each six officers and seventy-one men, and the two field-hospitals twelve officers and ninety men. In each division there are 212 tents with the hospitals, which include operating tents and those for patients. Two ambulances for the advanced base will also be sent out for each division. There will be, in addition to the foregoing, four other field-hospitals—one mobile and three stationary—having thirty-two officers, 180 men, and 205 tents, including thirty-three hospital marquees. Latest reports from the front state that there is some dysentery among the troops, but at present it readily yields to treatment. There is also some malaria, but not of a severe type, and the only death as yet attributed to sickness is that of Lieutenant Hickman, of the Royal Marine Artillery, who died from fever at Alexandria.

VACCINATION CERTIFICATES.

The poverty of our vaccination returns—in which no attempt is made to indicate the character of the result, or the degree of success attained—has long been a matter of complaint among those who appreciate the very different amount of security conferred by four good or one imperfect vesicle, which figure therein alike as successful. We see by the bulletins of the National Board of Health, U.S., that in Illinois an experiment has been made to collect more accurate information. Returns have been received from 4373 public schools, giving the history of 208,520 vaccinations or re-vaccinations performed during the past year, with the names, residences, ages, sexes, dates of last vaccinations, kinds of virus used, results ("typical," "modified," "bad," or "failure") number of repetitions, dates of previous vaccinations and results. To these uniform and constant data is also added much information of various kinds, volunteered by the medical men performing the operation. The accumulation is unique, and the proper analysis and collation of its material would form an invaluable contribution to the study of vaccination.

GENERAL HOSPITALS AND INFECTIOUS DISEASES.

Our readers will remember that some weeks ago, at a meeting of the Metropolitan Asylums Board, a grave complaint was made against the authorities of Guy's Hospital on the following grounds:—That one of the medical officers having recognised that a man attending among the out-patients had small-pox, had sent him away, telling him to go to the Stockwell Small-pox Hospital, but had given him no cautions as to how he was to go there. The man, with the eruption fully out upon him, had gone to Stockwell by a public omnibus, thereby endangering the public safety. The Managers of the Asylums had this case before them early in the present month, together with a copy of the correspondence which had taken place between the Local Government Board and the Hospital authorities on the subject. Having carefully considered the matter, they arrived unanimously at the opinion that it is highly desirable, and indeed necessary, that at every general hospital there should be provided an isolation-room, in which patients suffering from infectious diseases should be temporarily detained until such time as they can be removed by ambulance to one or other of the asylums established for their reception and treatment; and that the difficulties attending the removal of such patients would be greatly diminished if the simple certificate of a medical officer of the hospital at which the patient may have applied in the first instance were sufficient to insure admission into one of their asylums. They have communicated this opinion to the Local Government Board. The Managers are desirous of directing the attention of the authorities of all general hospitals to Article 4 of the Local Government Board's Order dated February 10, 1875, wherein it is laid down that "if any person present himself at an asylum without the order and certificate required by Article 3, and the medical superintendent be satisfied that the person is suffering from fever or small-pox, and is in such a condition that a refusal to admit him without such order and certificate might be attended with dangerous results, the medical superintendent may admit such person."

METROPOLITAN BAKEHOUSES.

Dr. C. Meymott Tidy, in his annual report, just issued, of the sanitary condition of Islington, refers to the extract from the report of Her Majesty's Chief Inspector of Factories and Workshops upon London bakehouses, which recently went the round of the newspapers, and in which the condition of the bakehouses was alleged to be most unsatisfactory. He states that he had felt it his duty to direct an inspection to be made of the bakehouses in Islington, with a view to ascertain their present condition under the new *régime*, as contrasted with their condition in the beginning of the year 1879, when they were first taken under the supervision of Her Majesty's inspectors, as well as for the purpose of having any defects now existing remedied as speedily as possible. In March, 1879, when the bakehouses were last inspected by the Vestry sanitary officers, in one instance only was any accumulation of refuse found under the troughs, and there were no other sanitary defects observed at that time. As a result of the inspection just made, in forty-five instances accumulations of refuse were found under the troughs, and twenty-five inlets to drains were untrapped; in eight bakehouses the paving was defective; in two there were stack-pipes open at the top and connected with the drains at the bottom; in a single instance a drain-pipe was found open for the reception of the water overflowing from the water receptacle; three of the more recently constructed bakehouses had water-closets in them, while five old ones were similarly circumstanced. From this abstract it would seem that his anticipation of three years since had been realised, for there were certainly signs of much neglect, which nothing but constant supervision would remedy. Forty-five accumulations of refuse under the troughs against one in 1879, and twenty-five untrapped drains against none, were matters of serious import, and proved conclusively that the average three visits a year of the Vestry sanitary officers were far more effectual than the one possible visit of Her Majesty's inspector in every two years and six months, that being the time it would take him, on his own calculation, to make one visit to each of the 1800 bakehouses included in the district referred to in the report of Her Majesty's Chief Inspector of Factories and Workshops. Mr. Liddle, the Medical Officer of Health for Whitechapel, also refers, in his report on the health of that district during the second quarter of 1882, to the same subject. He tells us that public atten-

tion having been forcibly directed to the defective sanitary condition of several of the bakehouses in London, he gave directions to the sanitary inspectors to visit all the bakehouses in the district. Reports to the following effect were prepared by those officers. It was found that some of the premises used as bakehouses were in a very unsanitary condition. In one district it appeared that there were thirty-eight bakehouses, of which twenty-three were found to be dirty and their ceilings broken; eight were badly paved; in one the drainage was defective, the soil oozing up into the bakehouse; in another it was ascertained that a man suffering from fever had been sleeping for some nights on flour-sacks belonging to the bakehouse; whilst in another the structure was in a dangerous condition. "The opinion," Mr. Liddle adds, "which I expressed several years ago as to the best mode of regulating bakehouses, was, that they should be annually licensed, like cowhouses and slaughter-houses; for since the power of the local boards has been transferred to the factory inspectors, the sanitary officers of this district have no reason to congratulate your Board on the improvement effected in the bakehouses."

THE VIENNA MEDICAL FACULTY.

Although the appointment of Prof. Nothnagel, of Jena, as the successor of Duchek and Skoda in the Chair of Clinical Medicine, gave such general satisfaction, there seem to have been some obstacles until quite lately in making the official declaration. A favourite pupil of Traube of Berlin, and in the prime of life, being only forty years of age, no doubt his career, which has already been so distinguished, will in his now enlarged sphere undergo great development. Dr. Mikulicz, the assistant of Prof. Billroth, who has already attained such celebrity as an operating surgeon, has just been appointed to the Surgical Chair at Cracow.

THE METROPOLITAN WATER-SUPPLY FOR JUNE LAST.

The report of the Metropolitan Water-Examiners for the month of June once more establishes, for the time, a satisfactory condition of affairs. Colonel Bolton, in describing the condition of the water previous to filtration, says the water in the Thames at Hampton, Molesey, and Sunbury was good in quality during the whole of the month of June. The highest flood state of the river at West Molesey during the month was one foot two inches above summer level, and the lowest was the summer level mark. The water in the river Lea was also in a good condition during the whole of the month. Messrs. Crookes, Odling, and Tidy, in their general monthly report for June, state as follows:—"It will be seen that during the past month the condition of the waters, not only in respect to entire freedom from turbidity, but also in respect to colour, state of aëration, and freedom from excess of organic matter, was unexceptionable. The average proportion of organic carbon found in the twenty-five samples of water examined for this constituent amounted to ·108 part in 100,000 parts of water, corresponding to less than one-fifth of a grain of organic matter per gallon." Dr. Frankland's summary shows that the Thames water supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth companies was of considerably better quality than that of last month, the improvement being most marked in the case of the West Middlesex Company's water. The Lambeth and Southwark Companies' waters were, however, slightly turbid, owing to imperfect filtration. The Lea water distributed by the New River and East London Companies also exhibited a marked improvement upon the quality of the last month's supply. Both waters were efficiently filtered before delivery.

THE PARIS WEEKLY RETURN.

The number of deaths for the thirty-second week of 1882, terminating August 10, was 906 (504 males and 402 females), and among these there were from typhoid fever 47, smallpox 7, measles 14, scarlatina 2, pertussis 2, diphtheria and croup 42, erysipelas 4, and puerperal infections 6. There were also 42 deaths from acute and tubercular meningitis, 169 from phthisis, 9 from acute bronchitis, 37 from pneumonia, 115 from infantile athrepsia (31 of the infants having been wholly or partially suckled), and 35 violent deaths (32 males and 3 females). The number of deaths registered this week is less than that of any of the four preceding weeks; and the only circumstance calling for remark is the increase of typhoid, the deaths from which increased from 31 last week to 47 in the present one. The number of admissions for the disease also increased from 124 to 208. The births for the week amounted to 1220, viz., 622 males (486 legitimate and 136 illegitimate) and 607 females (447 legitimate and 160 illegitimate): 84 infants were either born dead or died within twenty-four hours, viz., 57 males (40 legitimate and 17 illegitimate) and 27 females (18 legitimate and 9 illegitimate).

THE DUBLIN ARTISANS' DWELLINGS COMPANY (LIMITED).

From the Twelfth Report of the Dublin Artisans' Dwellings Company, for the half-year ending June 30, 1882, it appears that of the £50,000 new capital £13,680 has been applied for, and the directors anticipate no difficulty in placing the remainder, when suitable building sites shall have been obtained. The directors are in treaty for the acquisition of two sites, the negotiations for which are almost concluded. Both are favourably circumstanced; they contain respectively three and seven acres, and are capable of providing accommodation for about 500 families. Building operations on the Coombe site are proceeding satisfactorily: 131 cottages have been completed, and are occupied. The rental of property of the shareholders for the half-year ending June 30, 1882, was £2315 2s. 9d., as compared with £1829 14s. 2d. for the previous half-year—showing an increase of £485 8s. 7d. Since the commencement of the Company's operations a sum of £11,717 has been received in rents; the loss from bad debts within the same period amounts to £73 9s. 4d.; the present arrears are £22 1s. The entire revenue for the half-year amounts to £2343 9s. 8d., which, after providing for all expenses, will leave a balance of £1299 3s. 4d., out of which the directors recommend a dividend at the rate of 4 per cent. per annum, thereby absorbing £1066 18s. 10d., and leaving a balance of £232 4s. 6d. to be carried to the reserve fund.

SANITARY LEGISLATION IN NORWAY.

At this time, when so much interest, real or artificial, is shown by the public concerning the compulsory notification of infectious diseases, and concerning the degree and exteut to which isolation shall be carried out; and when the machinery of notification is so warmly discussed by medical men, it is specially interesting to get at the experience of other countries in these matters. We have before us a *résumé* of the laws at present in force in Norway, which seem well designed to meet at once the demands of the public health and private convenience. Though they have been amended and extended at various times, the principle has been the same since 1860, so that Norway would seem to have taken the lead in this direction. A few of the more important articles of the law of 1860 well deserve consideration. By Article 14, notice of every case of infectious disease is to be transmitted to the sanitary authority, both

by the head of the family and by the medical attendant, who must at once take all such measures as he may deem necessary for the treatment and isolation of the patient. If in the judgment of the medical man proper accommodation cannot be obtained in the patient's own dwelling or in other private house, the sanitary authority (Articles 20 and 21) may require his removal to a hospital. Articles 24 and 25 provide for the disinfection by the authority of clothes, bedding, houses, and for the conduct of interments. Articles 16 and 18 empower the sanitary authority, whenever an epidemic breaks out or is threatened, to appoint additional medical officers and inspectors, and to open provincial hospitals, requisitioning for this purpose, if necessary, private houses, for which compensation is paid as adjudged by a jury. The diseases at present scheduled are small-pox, cholera, typhus, enteric, scarlatina, measles, puerperal fever, erysipelas, diphtheria, and dysentery; and so thoroughly does the law approve itself to the good sense of the profession, that the duty of notification is now never evaded. In Christiania (population 122,000) there are no less than six separate hospitals for infectious diseases—viz., one for small-pox, another for typhus and enteric, a third for scarlatina, and a fourth for diphtheria, dysentery, and measles. These are at present scattered over the city, but are about to be removed to one convenient locality. Then there is on an island outside the port a hospital originally erected for cholera cases, but now used for any infectious diseases occurring on board ships entering the harbour. Lastly, a hospital for "suspects," that is, an asylum where persons or families who have been exposed to infection from the graver diseases are detained for observation. Besides these there is a detached ward or wards adjoining the University Hospital, where cases of typhoid are admitted for clinical purposes. In all cases the medical attendant confers with the medical officer of health as to the necessity of removal or otherwise, and in the crowded dwellings of the poor the latter watches the family so long as infection may remain latent. Only under very exceptional circumstances are the children from an infected house permitted to attend school. Vaccination is really compulsory, and no one can enter a superior school, be confirmed, or married, without showing proof of its successful performance. Whenever a case of small-pox appears in a house, all the other inmates are revaccinated, and it is only in the ample dwellings of the wealthier inhabitants that small-pox is ever treated at home. But so convinced are the people of the wisdom of these regulations that it is scarcely ever that any resistance is offered to the removal of a case of this or other serious infectious disease. Nor need we wonder at the acquiescence of the public when we find that, comparing the mortality per 1000 inhabitants in the ten years 1870-79 with that of the previous decade, the death-rate from typhus and typhoid has fallen from 0·9 to 1·7, of diphtheria from 2·7 to 0·9, of measles from 7·1 to 3·4, and of small-pox from 1·4 to 0·03. Scarlatina alone remains nearly stationary, 7·9 and 7·7; this disease, probably from its early infection and short incubation, has everywhere shown itself little amenable to preventive measures.

DR. WOLFE'S WORK "ON DISEASES AND INJURIES OF THE EYE."

THE *Berliner klinische Wochenschrift* contains a very complimentary notice of Dr. Wolfe's book. Professor Sattler, the reviewer, says that, amongst the numerous existing text-books on the eye, Dr. Wolfe's stands out most prominently, and is distinguished by the individuality of the author, who has given us a representation of the subject from his own experience. The form of lectures adopted has afforded him ample scope for working out his materials in an attractive style and vivid diction. The book has also this advantage, that many important subjects, which are either not mentioned at all, or are touched upon but slightly in other text-books, are treated here extensively and satisfactorily. But, on the other hand, some important subjects have received comparatively scant attention. The author has conscientiously fulfilled his promise "to embody the latest investigations in as brief and comprehensive a style as possible," with regard to the essentials; but in pathological anatomy he has sometimes occupied the old standpoint. Professor Sattler concludes that, considered as a whole, the work may be regarded as a welcome enrichment (*welkommene Bereicherung*) of our ophthalmological literature.

HOSPITALS AND DISPENSARIES IN THE PUNJAB.

SURGEON-GENERAL S. C. TOWNSEND's Report of the Punjab Dispensaries for the year 1880 shows that 181 hospitals and dispensaries were open at the commencement of the year; 4 new dispensaries were established and 1 closed, leaving 184 in operation at the close of the year. Of the patients treated 34,729 were indoor and 1,333,700 outdoor, and 3531 major and 100,803 minor operations were performed. The percentages of men, women, and children treated were 64, 19·5, and 16·5, respectively. Among the surgical operations lithotomy holds a conspicuous place. There were 988 operations, with 113 deaths, or 11·4 per cent. In addition to these there were 20 lithotrities, with one death, and 15 cases of dilatation of the female urethra, with no death. There were 174 amputations of all kinds performed, with 31 deaths; 162 operations were performed for the removal of cataractous lens, with success in 96 cases and relief in 37. The number of obstetric operations amounted to 14. There was only one operation for elephantiasis scroti—a very remarkable contrast with hospital statistics in the Lower Provinces. There is a lying-in hospital at Amritsar which has been provided with a new building with accommodation for twelve patients. Pupils of the school attended 204 cases of labour, including 8 cases of version. Dr. Townsend notes as the imperfections of the dispensary system—(1) want of inspection; (2) consequent suspicion of correctness of statistics; (3) employment in some districts of hakims of very doubtful qualifications; and (4) want of system in allocation of dispensaries. These matters are engaging the attention of Government.

THE INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

ALTHOUGH the subject of fishing and fisheries is not one of those with which this journal is especially concerned, yet our fish supply is a matter so important to the well-being of the people, that we think a mention of those features of the proposed Exhibition which concern the food and health of the population, is not uncalled for. The Exhibition seems likely to be extensive and complete. Her Majesty's Government and the governments of many foreign countries and of our colonies have promised their assistance, and a large number of valuable prizes will be given. The exhibits will be divided into six classes, as follows:—1. *Fishing.* 2. *Economic Condition of Fishermen:* In this there will be four subdivisions, the first three of which are—(1) apparel and personal equipment; (2) food and medicine chests; and (3) models and plans of dwellings. The third class is headed *Commercial and Economic*, and here the following find place: models of fish-curing establishments; "methods of, and models and other representations of, any appliances for drying, curing, salting, smoking, tinning, cooking, etc."; "fish dried, smoked, cured, salted, tinned, or otherwise prepared for food"; "antiseptics suitable for preserving fish for food." The specimens in Class 4 will illustrate *Fish Culture*, and will include—"models or drawings of fish hatching, breed-

ing, and rearing establishments, including oyster and other shell-fish grounds, and all apparatus and implements connected with the same, and for transporting fish and fish ova"; "representations illustrative of the development and progressive growth of fish." Under the head of "scientific investigation" there will be "models and drawings of diseases of fish, with special reference to their origin and cure; processes for rendering streams polluted by sewage and chemical or other works innocuous to fish life (illustrated by models and drawings); physico-chemical investigation into those qualities of salt and fresh water which affect aquatic animals; investigation of the bottom of the sea and of lakes, shown by samples; aquatic plants in relation to fishing, etc.; researches into the aquatic fauna (animals of the several classes preserved in alcohol or prepared, etc.); apparatus and implements used in such researches;" lastly, acclimatisation of fish. The fifth class is entitled *Natural History*, and in it will be shown "specimens, living (marine and fresh water), fresh, stuffed, or preserved, casts, drawings, and representations" of fish, and aquatic beasts, birds, reptiles, molluscs, etc., existing and extinct; and works on ichthyology and allied subjects. The sixth class will illustrate the *History and Literature* of fishing—fishery laws—fish commerce. It will be seen that there will be a good deal which will interest medical men, from the point of view of hygiene alone, to say nothing of that which members of our profession may feel as naturalists or sportsmen.

THE MEDICAL REPORT OF THE FULHAM SMALL-POX HOSPITAL

The report of Dr. R. D. Sweeting, the Medical Superintendent of the Fulham Small-pox Hospital is before us; and is of much interest, as it contains more information of a strictly scientific kind than is usual in such reports. The death-rate out of 1752 cases was 14·09 per cent. The mortality among the vaccinated was 7·30 per cent., among the doubtfully vaccinated 31·01 per cent., and among the unvaccinated 44·28 per cent. The facts given relating to errors of diagnosis are interesting: 16 cases were erroneously admitted as small-pox;—of these, 9 turned out to be measles, 6 chicken-pox, and 1 syphilitic lichen; 29 other cases were sent to the Hospital, and 6 patients themselves applied for admission, under the belief that they were suffering from small-pox—26 of these werecases of chicken-pox, 3 of acne, 2 of erythema, 1 of scrofuloderma, and 3 had nothing at all the matter with them. It will be seen that while the error of mistaking chicken-pox for small-pox is the commonest one, 32 such having been sent to the Hospital during the year, yet the greatest difficulty lies in the diagnosis between small-pox and measles; for, of the 32 cases of chicken-pox, 26 were refused admission, while the 9 cases of measles were all admitted; 21 cases of prodromal eruptions were observed during the year—divisible into three classes, petechial, erythematous, and rubeolous, the first being the most numerous. There were 44 cases of small-pox after alleged revaccination; 3 of these died, but in 2 of them no marks of revaccination were visible, and in the other only one poor mark. There were 2 cases of second attacks of small-pox—one a patient, aged thirty, who had had the disease at the age of seventeen, and in whom the illness was exceedingly mild; the other patient was aged ninety-one, and had had small-pox when five years old—her illness was fairly severe. An indubitable example of the ncubation of small-pox in utero was observed; the mother was attacked on July 19, the child was born on July 21, and its eruption appeared on July 28. One child born eight days after the mother's invasion by small-pox was successfully vaccinated, and did well; two others, born seventeen and fourteen days respectively after the mother's invasion were vaccinated without success, and died. Twenty-six women were pregnant; of these only nine aborted. The report contains a table of the various complications and sequelæ of small-pox, which is of value as showing their relative frequency. We note 56 cases of pulmonary congestion, 5 of bronchitis, 15 of pneumonia, and 10 of pleurisy; 11 of tonsilhtis and 7 of laryngitis; 94 of coujunctivitis, 11 of blepharitis, 10 of corneal ulcer, 9 of phlyctenulæ, 2 of hypopion, 3 of iritis, and 1 of suppurative ophthalmia; 12 of otorrhœa and 2 of deafness; 34 cases of erysipelas, 65 of furuncles, 62 of abscesses, 37 of ulceration, and 1 of gangrene; 9 of inflammation of the parotid, 2 of mammary abscess, 45 of glandular enlargement, the mammary being the gland affected in 13 cases. The last point in Dr. Sweeting's report to which we would call attention refers to the immunity of the staff from infection. During the year sixty-nine fresh members were added to the staff. All of these were revaccinated before going on duty, and four of them only had previously had small-pox; not one took the disease. That this immunity was not due to sanitary conditions, insusceptibility, or any of the other explanations offered by the antivaccinationists, is shown by the fact that ten of them took scarlet fever.

Prophylaxis of Ophthalmia Neonatorum.—Dr. Felsenreich, First Assistant in Prof. C. v. Braun's clinic, states that the results of his own and of Dr. Borysikiewicz's trials of Credé's prophylactic treatment had created such confidence in it that both Profs. Carl and Gustav Braun recoguise this as the routine treatment to be followed for every child born in their wards. During 1881-82, 3000 children were so treated, and only fifty-eight were sent to the Foundling Hospital with "sick eyes," or 1·93 per cent.; while a large number of children treated according to the earlier methods furnished a percentage of 4·34. It is necessary that some special person should be entrusted with the treatment, so that the midwife may have nothing to do with the eyes of the new-born infant. Credé's two methods—(1) washing out the maternal genitals to prevent contact of their secretions with the conjunctiva; and (2) the introduction into the conjunctival sac of a corrosive fluid, such as a 2 per cent. solution of nitrate of silver, so as to destroy any poisonous principles—are those employed in these two clinics.—Vienna Correspondent of *Philadelphia Med. News*, July 15.

The Tomato as a Dietary and Medicine.—In an article in the *Australian Med. Jour.* (February) it is observed that while the Americans attach an inordinate value to the alterative powers of this plant, with ourselves it is too little thought of. It has been found to be an effectual germicide when brought into the vicinity of plants suffering from low organisms, and it is believed to be efficacious as a preventive of typhoid fever, and useful to sailors and others liable to scorbutus. The tincture of tomato is now being experimented with; and eaten cooked with hot meats, or as a salad after cold ones, it is found to be a pleasant and useful article of diet. Caution, however, should be used in the amount taken, two or three tomatoes a day sufficing.

A Turning-point in Tracheotomy.—In the course of a lecture on tracheotomy by the late Prof. Hodgen (*St. Louis Courier of Medicine*), the following valuable paragraph appears:—"Not infrequently—in fact, as a general rule, when a child has been struggling for breath for hours, it may be, and an opening is made in the trachea so that the air enters easily and freely—there will be, after one full inspiration, an entire arrest of all respiratory movements for several seconds, so that one who is not prepared for it may be alarmed. But if you watch the face you will observe that, even while the respiration is arrested, the colour is constantly improving; the livid hue is passing away, and the natural colour is returning to the lips and cheeks and brow, and after a few seconds, sometimes as much as half a minute, the respiratory movements are resumed, and the child breathes easily, falling into a quiet sleep. The explanation is apparent. The child was poisoned by carbonic acid, and there was oxygen in the air inhaled by the long inspiration after the trachea was opened.—*Philadelphia Med. Reporter*, July 29.

THE CONTAGIOUS DISEASES ACTS.

We regret that want of space has prevented us from more immediately putting before our readers the substance of the Report of the Select Committee of the House of Commons appointed to inquire into the working of the Contagious Diseases Acts. This Report is elaborate and lengthy. The Committee sat sixty-eight days, and examined seventy-one witnesses. Their inquiry was confined to this country, for they were of opinion that, "owing to the difference between English and foreign and colonial habits and social institutions," inquiry into the state of things abroad "would not have thrown any additional light on the questions referred to them."

The first part of the Report contains information which it is well the public should have, but which is not at all new to medical men, as to the gravity of the evils which syphilis causes. The Committee then inquire as to the effect of the Acts in diminishing disease. They find that in the different stations at which the Acts have been in force, syphilis has been reduced in ratios varying from 29 to 47 per cent., and gonorrhœa by about 5 to 7 per cent. Their general conclusion with reference to this part of the subject is this: that out of 16·69 per thousand soldiers who would have been ordinarily incapacitated for duty, about one-third, or 5·38, are now in a state of health and efficiency by the direct operation of the Acts. To this they add, "there ought to be added the gain to the service derived from the increasing immunity of the men from the various debilitating and incapacitating disorders, which, though not classed as venereal diseases, not unfrequently result therefrom." Their finding therefore is, that from a sanitary point of view the effect of the Acts has been very beneficial.

That which in the present state of the public mind is the most important part of the Report, is that which relates to the objections taken to the Acts upon social, moral, and constitutional grounds. The Committee epitomise these as follows:—1. That they involve the recognition and regulation of vice by the State, and are therefore an outrage upon public morality. 2. That they violate the first principles of constitutional law. 3. That in practice they tend to increase sexual vice, by creating an impression on the minds both of soldiers and civilians that it may be indulged with impunity. 4. That they subject women to restraints and penalties from which men are free. 5. That under them virtuous and respectable women, at the instance and even at the mere caprice of the police, may be, and as a matter of fact are, brought before a magistrate, classed as prostitutes, and subjected to a painful and degrading examination. 6. That they have increased what is called "clandestine prostitution."

The Committee deal with these objections *seriatim*. With regard to the first, they point out that there is nothing new in this principle, and that, so far as the Acts are concerned, it is simply a question of degree. The State tolerates prostitution. The prostitute is punishable if she carries on her trade in an indecent or disorderly manner; but the habit of prostitution, pure and simple, is not a legal offence. The Acts do not give prostitution more toleration than it enjoyed before their existence; all that they have done is to insist that the toleration permitted by the institutions of the country shall be exercised with less detriment to public health. They point out that these Acts cannot be classed with the continental systems of dealing with vice, because "the English statutes make an attempt at reclamation by moral and religious agencies an essential part of every attempt to check the evils of prostitution. The foreign systems tend to confine public women in brothels, where every good influence is avowedly excluded. The insistance on religious and moral influences makes the system in principle an ally and not an enemy of religion and morality."

With regard to the second objection, that the Acts violate constitutional rights, the Committee can find no argument against them that does not equally apply to the laws concerning vaccination, and the isolation and treatment of persons suffering from infectious diseases. The woman of the town is only called upon to submit to measures which virtuous women often undergo voluntarily. The medical examination "is not in itself, and apart from the causes which necessitate it, a dishonour, and the compulsion to which the prostitute has to submit is the result of her own misconduct."

To the third objection, that the Acts tend to encourage immorality, by offering comparative safety to its indulgence, the Committee reply that, although it is difficult to come to a conclusion on this point, yet they do not think that considerations of the consequences weigh much with men bent upon vicious courses, who are generally reckless, and are simply dominated by their inclination to gratify a strong animal instinct.

The fourth objection the Committee pass lightly by, pointing out that it is not women, but only a particular class of women, who are subjected to restraints and penalties, and that the subjection of this class of women to the conditions mentioned is the whole case into which they have to inquire.

The assertion that under these Acts respectable women have been exposed to their operation, the Committee characterise as an objection of the gravest kind, and one which, if substantiated, would be fatal to their maintenance; they therefore have spared no labour in probing it to the utmost. The result is that they call attention "to the fact that in the course of sixteen years not a single case has been brought before your Committee in which any woman alleged to have been wrongfully brought under the operation of the Acts has brought an action or taken legal proceedings against the police authorities in respect of any act done by them under the Contagious Diseases Acts." They think that, on the whole, the police have discharged their difficult duties with care and discretion, and that the instances in which they have abused their powers have been very rare.

The sixth objection, that the Acts have increased clandestine prostitution, is matter of opinion. The Committee adduce a good deal of evidence tending to show the contrary, and express their belief that although in some cases secrecy may have taken the place of public depravity, yet that on the whole the Acts have had a wholesome deterrent effect, and generally diminished prostitution, both clandestine and public.

The Committee then proceed to consider the opposite side of the question. They think it substantiated by evidence that the Acts have (1) diminished prostitution in suspected districts; (2) almost entirely suppressed juvenile prostitution; (3) rescued fallen women from the frightful state of filth and disease in which they had previously lived, and thus placed them under conditions in which they, for the first time, become amenable to humanising and reforming influences; (4) contributed to promote public order and decency in the districts in which they are in force.

The diminution in prostitution they think the Acts have brought about (1) by their deterrent effect in preventing many women, especially young girls, on the borderland between levity and immorality, from embarking on a career of vice; (2) by the excellent moral and spiritual influences brought to bear upon women while in hospital, and the help given them in maintaining a respectable mode of life after their discharge; (3) by the intimate knowledge gained by the police of the houses of ill-fame and their inmates, by which they are enabled to suppress the one and help in reclaiming the other.

The great diminution in juvenile prostitution is attributed to the manner in which the Acts operate against the causes of this kind of depravity. These causes are—(1) the want of parental control; (2) residence in brothels: these evils being remedied by the information which the police are able to give to parents, and the power which they can exert over brothel-keepers in preventing their harbouring young girls; (3) the example and encouragement of girls slightly older—the deterrent effect of the Acts effectually prevents this; (4) the open profligacy formerly to be seen in the streets, but which the Acts have put an end to.

The third argument put forward by the advocates of the Acts is emphatically recognised by the Committee. Women hitherto living "like wild beasts in woods and drains" have been placed in a position "in which their moral reclamation becomes for the first time possible"; and the Acts have enabled many to enter upon a career of respectability.

The fourth argument, that the subjected districts have greatly improved in point of order and decency, is scarcely contested. The Committee remark that many of the witnesses against the Acts had no personal knowledge of their

working, and that the opposition in each locality "is proportioned to its distance from the places where they are in operation."

The foregoing will have left the reader in little doubt as to the recommendation of the Committee with respect to the proposed repeal of the Acts. With such evidence before them, they could do nothing else than advise against it. With regard to the further question, Should the Acts be extended? the Committee, while admitting that every material argument points to an affirmative reply, refrain from giving it on the ground of the character of the opposition to the Acts. The conscientious religious convictions of a considerable body of estimable people should, they think, be respected. They do not recommend any material changes in the Acts as they stand, but merely some additional measures having for their object the more efficient attainment of the objects which it is sought to effect by them.

FROM ABROAD.

Geheimrath Dr. Robert Koch Interviewed.

In some interesting letters contained in the *Philadelphia Medical News*, July 22 and 29 and August 5, a Berlin correspondent gives an account of several interviews which he has had with Dr. Koch. He describes his procedure of solid "culture" of parasitic organisms with the potato and a mixture of gelatine and extract of beef. He also describes the Pathological Institute at the Berlin *Gesundheitsamt*, of which Dr. Koch has been appointed Director, and which, from his account, appears a place admirably organised for working and demonstration. Speaking of the workers in this laboratory, he says: "These men are not students of medicine in the ordinary sense of the word, nor are they practitioners, but men of science—all of medical science, of course,—who expect to devote their lives to this kind of work. A mere association with men of this class is an education itself, for it is the pure school of observation. Nothing whatever is taken for granted; nothing is inferred or deduced, or reasoned out or speculated on. Everything is simply examined and described. Dr. Koch is the referee in matters of doubt, and, so far as I have been able to see, he can determine any ordinary matter of doubt at a glance. The Director makes a general assignment of the work, but each man is left pretty much to himself. So one man will be found engaged with tuberculosis, another with milzbrand, a third with the organ of some animal that has died in the veterinary stables, another with the analysis (not chemical, for that takes place elsewhere, but mycological) of drinking-water, soils, etc."

The correspondent having stated to Koch that, dissatisfied with the studies in mere morbid anatomy, as furnishing few therapeutical indications, he had now turned to etiology, in the hope of better results.

"To this Koch replied that 'Etiology is like a new mine, which is just being explored. One must not, because a vein has been discovered, arrive at once at the conclusion that we may find gold in every direction. There has been, and there always will be, much disappointment after the search for truth in every field. The good that we are to look for as the result of these investigations will come for the most part through prophylaxis, and not so much through direct cure. I believe myself that too much complication has arisen from studies only in one direction.' 'You do not believe much, then,' I asked, 'in the possibility of discovering a method of reducing the virulence of the tubercle bacillus, and thus, by inducing a mild form of the disease, secure future immunity?' 'I can speak,' he answered, 'of course, only from what is at present known—I can say nothing as to future possibilities; but I will tell you why I think such an event improbable. It is because there is no analogy between small-pox and tuberculosis. Small-pox is a disease which confers an immunity by one attack. It is so rare as to be a clinical curiosity for an individual who has once had the disease to have it again. But does not everyone know that this is not true of tuberculosis? Is it not rather in the experience of every practitioner that one who has had tuberculosis once does have it again and again until he finally dies of it? Of course, many cases recover entirely; nevertheless, every practitioner knows that one attack does not give immunity from future attacks. That is one standpoint from which to regard this question, and it is the standpoint of clinical observation. Now, we can add to this another substantiating fact. You saw the dog which was injected with a minimum quantity of tubercle bacilli. The injection was made in the abdominal cavity, and produced an exquisite tubercular peritonitis. Nevertheless, the dog finally recovered entirely, and seemed perfectly well. Then the same dog was used again, and a large number of bacilli were introduced into the abdominal cavity. You will see that the dog is fatally ill. Now, if one attack conferred immunity, it ought to have been impossible to produce this second attack. Hence I do not think it possible to prevent the disease in that way, nor do I think it necessary to try it. For individuals affected with the disease can be prevented from disseminating it.' 'By destroying the sputum?' I interposed. 'Not only the sputum,' he said, 'but every source of contamination. So soon as it is universally acknowledged that tuberculosis is an acute infectious disease, it will be treated, like the other acute infections, by better care of all the persons attacked, by isolation, perhaps in properly arranged institutions, etc.; and by having far more care than ever paid to the meat and milk of tuberculous cows, cows suffering with *perlsucht*, which are now known to be tuberculous.'"

REVIEWS.

The Brain and its Functions. By J. Luys, Physician to the Hospice de la Salpêtrière, etc. London: Kegan Paul and Co. Pp. 327.

This book, which is one of the volumes of "The International Scientific Series," is a survival to the present day of modes of thought and expression, obsolete, if not archaic. It is divided into three parts—1. An account of the anatomy of the brain: 2. A treatise on "the general properties of the nervous elements," and an account of the manner in which the cerebral functions and the mental processes result from, and are explained by, these fundamental properties; and 3. The further development of this doctrine and explanation.

The anatomical portion is really well done. The description is sensible, concise, and clear. The brain is described, not merely as seen in sections showing the prominences and cavities, and so forth, as is too common, but as consisting of sheaves of fibres running in definite directions, with masses of grey matter grouped about and upon them.

The general properties, which are common to all nervous tissue, and cause and explain all the phenomena dependent on the action of nerve-tissue, are three—Sensibility, Organic Phosphorescence, and Automatic Activity; and these three correspond respectively with the emotions, the memory, and the intellect.

What Dr. Luys means by Sensibility is very difficult to clearly distinguish. He uses the term as equivalent successively to the ordinary meanings of the terms vitality, consciousness, irritability, the power of assimilation, the power of excretion, and sensory or afferent nerve-currents. Having so general, or rather so multiplex, a meaning, it will be easily imagined that sensibility plays a very important part in Dr. Luys' system. The chapter on the evolution of sensibility is a description of reflex action under the title of "unconscious excito-motor sensibility," which may possibly be a better expression. Proceeding, we find a description of how the sensory or afferent currents, continually issuing from the peripheral nervous plexuses and sense organs, pass through the spinal cord and the optic thalamus to the grey matter of the cerebral cortex, where the sum total of all the peripheral impressions is simultaneously "projected," just as a landscape is projected on to the table of a camera obscura. Now mark what follows. "The thousands of cerebral cells of the *sensorium commune* that have been unexpectedly awakened acquiesce in it [*i.e.*, in the incoming current] in their own manner. They react in a specific manner, and, like their partner-cells situated at the antipodes in the sensorial plexuses, they react according to the manner in which their natural affinities have been excited. According as the excitation has gratified or wounded their profound sympathies they

are agreeably or disagreeably impressed." And the sum total of these likings and dislikings of these cerebral cells is the liking or disliking of the individual who possesses them! The hollow sphere formed by the cortical grey matter is "a true *sensorium commune*," and "in the bosom of this sphere," when it is erethised and in action in the manner described above, "our conscious personality lives and vibrates." Dr. Luys' concept of the conscious personality is one of the two fundamental and all-pervading defects of his book. He regards it as a separate entity dwelling within the brain, usually occupied in turning the wheels and working the machinery of the human organism, but occasionally compelled to stand by and look on (pages 191, 193) while the machine runs uncontrolled. The author's notion of the relation which the "conscious personality" bears to the organism is extremely like the notion held by uncivilised people of the relation of the Deity to the world. It is constantly controlling and intermeddling with the cerebral processes, and Dr. Luys marvels greatly when evidence arises to show that things can go on without its perpetual interference. That the conscious personality (to use his own term) is merely the sum total of all the states and processes of mind at one time existing, is a notion which Dr. Luys does not appear to have heard of.

The other radical blemish in the book is the absolute ignoring of any distinction or difference between the universe of material things and the universe of mind. In Dr. Luys' eyes there is no distinction whatever between them. Physical forces by an easy transition become mental conditions, and *vice versâ*. The force of a material pressure on the skin is changed into a nervous vibration, which speeds along the nerve-trunks, through the spinal cord and the optic thalamus, where it becomes changed by a "peculiar metabolic action," is "animalised,—intellectualised," and finally emerges in the *sensorium commune* as an idea. Which is much as if a beef-steak were put into a sausage-machine, where it underwent a peculiar metabolic action, and emerged, not as mincemeat, but as melody!

The author's theory of pleasure and pain is somewhat like that of Aristotle materialised. According to Dr. Luys, all exercise of function by the nervous elements is attended by a vibration. The action of a force in the external world on a terminal sense-organ produces a vibration in it. This vibration is transmitted along the afferent nerves to the sensorium, and produces in the cells there a reaction, causing them to vibrate in unison with the peripheral cells. When the cells of the sensorium from any cause fail to vibrate on the reception of these afferent currents, there is anæsthesia. When they vibrate excessively, there is pain. Just as in the gradual heating of a metal to redness, the vibrations of the molecules (Dr. Luys says of the caloric), as they become more and more frequent, disengage first heat and then light—so, as the vibrations of the cerebral cells increase in rapidity, they disengage first sensation and then pain. It may be inferred from this, although it is nowhere expressly stated, that pleasure is in the medium state of oscillation, of which anæsthesia and pain are the extremes. But in the passage previously quoted it appears that pain and pleasure depend not on the degree of agitation of the cells, but on the nature of the incoming current, and on whether this has "gratified or wounded their profound sympathies." Then, again, in another place (page 121), it is not the cells but the sensibility which is thrown into agitation. We find there the expressions "moral pain" and "physical pain"—expressions which, however widely current among the laity, are unpardonable in the work of a professional psychologist; and moral pain is said to be "the expression of the moral sensibility carried to its maximum of intensity, as physical pain is but the most exquisite form of the physical sensibility thrown into agitation."

The second of the general properties of the nervous elements is Organic Phosphorescence, by which is meant the property which the nervous elements possess of retaining or resuming a condition into which they have once been thrown. The analogy between the retention and reappearance of luminosity in phosphorescent bodies, and the retention and reappearance of the activity of nerve-processes, has led Dr. Luys to entitle this property nervous phosphorescence. Although Dr. Luys is a thorough-going adherent of the doctrine "No thought without phosphorus," it does not appear that he means by this term any physical similarity in the two processes beyond the bare analogy indicated above. Under the heading of this property are described many instances of elaborate unconscious acts—for it is a condition of organic phosphorescence that the will, or the conscious personality, shall be unconcerned with its manifestations,—but, beyond attaching to them a new name, Dr. Luys gives no new explanation of these occurrences, and our knowledge of them is not much increased by calling them phosphorescent gleams. While the involuntary unconscious or semi-conscious repetition of an act is a case of organic phosphorescence, its voluntary repetition is not. This latter is brought about immediately by the will or the conscious personality; but by what instrumentality the will produces the act does not appear. What the process in the nervous system is which accompanies a voluntary act, and how it differs from that which accompanies the same act involuntarily performed,—this is the crucial question underlying this portion of the subject; and to this question no reference is made. The operations of memory and the laws of association are described, but there is no novelty in the explanation of them beyond the verbal one. The same may be said of the chapter on functional disturbances of the memory. Interesting facts and examples are adduced, but the idea of organic phosphorescence does not elucidate their causes.

The section on Automatic Activity, which has its mental correspondent in the intellect, it is unnecessary to examine in detail. The same faults that pervade the rest of the book prevail here also, and we fail to find any features sufficiently good to alter the general verdict. The word "automatic" is used sometimes in its properly restricted sense, and sometimes as meaning autogenetic, and much confusion results from this error. There is the same correct description of phenomena, of conduct and of mental operations, both normal and morbid, and the same want of success in the interpretation of them according to the author's theory.

Having so totally disagreed with the author's main doctrines, it may seem a superfluous acerbity to dissent from his minor propositions, but we cannot pass over without dissentience his theory that the notion of moral rectitude is a development of the sense of taste (page 279), nor his theory that tact and mental aptitude depend on the fineness of the skin, because those qualities are found "in idle women of society and men with a fine skin." By a parity of reasoning, a love for beans and bacon is produced by wearing heavy boots! As to the novelty of the facts adduced, here is one instance—"In old age, as sensibility grows languid, the elements of the sensorium lose energy, repose and silence invade them, ... verbal expression and conversation lose their spontaneous character. . . . The man who has nothing to say speaks no more or says nothing." Quite so. The taciturnity of old age is, of course, proverbial.

It is unfortunate that more praise cannot be given to the style of the author than to his matter. The diction is often obscure, sometimes to the point of actual impenetrability, and some of the phraseology is new and strange. On page 89 we are told that "the nervous system is constituted as a central force"; on page 140 we learn that the organic phosphorescence is "always identical with itself"; we hear repeatedly of "organic perfectionment"; we are introduced to "emotivity"; on page 115 there is this unusually perfect example of the *circulus in definiendo*—"Pain, from the very fact that it expresses a purely vital action inherent in every living cell, vegetable as well as animal, is therefore the physiological equivalent of the individual sensibility of that same cell in conflict with the surrounding medium which impresses it painfully." The term "an infinite number" is repeatedly used when a very large number is meant. The most striking feature in the book is the lavishness with which mental endowments are distributed. Not only are the nerve-cells of the sensorium endowed with profound sympathies, but the peripheral nervous plexuses have feelings. The retina can be "gratified," and transmit the feeling of gratification to the sensorium. It feels "a purely visual satisfaction." Not only do the nerve-cells and the animal tissues possess a consciousness, but vegetables also. Of the sensitive plant the author says that "like an animal, it feels," etc.; and not only vegetables, but vegetable-cells and unicellular organisms seek the agreeable and avoid the disagreeable—which implies a conscious selection.

It is with great regret that we have been compelled to criticise with severity a book like this of Dr. Luys', which, whatever its defects, is certainly the outcome of consider-

able industry, is honestly written, and bears the impress of a certain worthily original aim; but in these days of making many books, and of strenuous intellectual competition, it is imperative that the student of psychology should be warned off a book which is so obscurely written that he can only understand it at the cost of a comparatively enormous expenditure of time and labour, to find, when he has mastered it, that he has been filling his belly with the east wind.

GENERAL CORRESPONDENCE.

Letter from Mr. T. M. Stone.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly allow me, through the medium of the *Medical Times and Gazette*, to express my best thanks for the very kind letters I am daily receiving from all parts of the country, consequent on my retirement from the Royal College of Surgeons, and to state that I will answer them all as soon as possible.

I have also to request that all letters of an official nature may be addressed to "The Secretary of the Royal College of Surgeons, Lincoln's-inn-fields, London, W.C.," from whom they will receive every attention. I am, &c.,

Pelham-road, Wimbledon, August 20. T. M. Stone.

A FLEXIBLE PROBE FOR DETECTING BULLETS.

Letter from Mr. W. D. Wilkes.

[To the Editor of the Medical Times and Gazette.]

Sir,—An agricultural labourer, named Thomas A., aged seventy-three, was admitted into the Salisbury Infirmary on April 4, 1882, with a bullet wound of the right buttock. It happened in this way. The man was following a water-cart in the field, when he was struck from behind and fell. A boy who was bird-keeping had fired at some rooks, not noticing any person in the way. He had been supplied with a round bullet for a single-barrelled percussion gun, and the ball struck the man at about three hundred yards distance. On examination, I found he had a round wound in the centre of the right buttock. A long silver probe passed under the glutæal muscles for some six inches to near the right great trochanter. I cut down on to the end of it, hoping by probing through the cut to find the bullet, but unsuccessfully. I passed a drainage-tube through, and applied water-dressing. In the meanwhile I procured a Charrière porcelain-tipped probe, and about a week afterwards I felt a hard substance with it, but no mark of lead followed. I put the patient under chloroform, enlarged the original wound, and passed my finger, but only detected the bare outer side of the sitting bone. No bullet could be felt anywhere. The man continued very ill. In the course of time his blood became poisoned, and a large abscess formed over the sacrum, which I opened; afterwards erysipelas supervened on the back, and when this passed off the wounds all closed. The bullet became encysted somewhere, for we never could feel it. The man had no pain at any part; he could walk pretty well, and he left the Infirmary, cured, on June 24 last. During the time he was in hospital he was well fed with port wine, strong beef-tea, and all the good food we could get him to take; and had quinine, iron, etc., as medicines.

During the case I thought it would be an improvement on the bullet-probe if an elastic blind catheter with a porcelain tip, and of good length, were made. When the stilette was home, it would be a firm instrument, and, having gone as far as a stiff probe would go, by withdrawing the stilette a certain distance the end would be flexible, and able to follow the sinuosities which a ball would make. By its power of bending in any way of least resistance, you could then pass on your stilette to that point, and try again, and by such a plan you might arrive at last at the bullet.

I suggested the making of such an instrument to Mr. Hawksley, 357, Oxford-street, London, and he fell in with my views, and has kindly sent me two of the catheters of different calibres, and some stilettes of varying stiffness, which I hope may succeed; and in a letter he has added a valuable suggestion. He tells me—"I have found that where the porcelain end touches a surface of oxidised lead the mark is black, and does not show a metallic lustre when viewed through a magnifying glass. This is often the case when a bullet has been in the body a short time, or it may be blackened by the powder or exposure. To test this I found that, by dipping the end of the probe in acetic acid and then in iodide of potassium, a beautiful yellow colour (iodide of lead) was produced."

Again, I suggested that if the end of the porcelain allowed the stilette to come through to the surface, you might get confirmatory evidence by some galvanic current if the stilette were of a different metal to lead, etc.; and he tells me—"There is already a probe for detecting bullets—it either rings a bell or deflects a galvanometer needle; but the fluids of the body are frequently such good conductors that they sometimes ring falsely. This electrical probe is made and sold by Trenne, of Paris, and is a delightful instrument to demoustrate a bullet when you know it is there."

Mr. Hawksley advises me to claim for these probes the following description:—"An elastic Nélaton's [Charrière originally made, I believe, the porcelain suggestion.—W. D. W.] probe, capable of being made more or less rigid, or of being made in part, *i.e.*, the proximal end, more or less rigid—to be used for the detection of bullets, by abrading some portion of the leaden surface, the latter to be detected by a lens or the chemical reagent; and further, as an elastic probe for introducing into burrowing sinuses, and when stiffened or rendered rigid, to be cut down upon."

I hope that, in practice, the instrument I have suggested may prove to be serviceable.

I am, &c., W. D. Wilkes,

July. Surgeon Salisbury Infirmary.

Boracic Acid in Granular Eyelid.—Dr. Minoi states that he has found boracic acid a most excellent application to granular lids. The lids being thoroughly everted, the powder is spread freely over the whole surface of the conjunctiva with a camel's-hair pencil. The acid is generously applied, and, mixing with the discharges from the lids, it readily gains access to the cracks and crevices between the granulations, and thus comes into direct contact with the entire surface upon which it is intended to act. The immediate effect is to increase lachrymation, and to cause a burning, gritty sensation, with some pain. These sensations are followed within ten minutes by amelioration of all the symptoms. The powder is used three times a week, and the improvement is so gradual as to be almost imperceptible. Better results have been derived from this substance than from any of the ordinary caustics or astringents. —*Phil. Med. Reporter*, July 22.

Self-Hypnotism for Insomnia.—Dr. Greidenburg relates in the *St. Petersburg. Med. Wochenschrift* the history of a patient with athetosis who suffered from obstinate insomnia. He got relief at last by fixing a light so that its reflection was visible in a glass of water. After gazing fixedly on this, he would fall into a hypnotic condition and sleep.—*New York Med. Record*, August 5.

Action of the Intestinal Juices.—Dr. Charles Dana, Professor of Physiology in the New York Women's Medical College, after narrating experiments which he performed on four dogs and one horse, observes (*Philadelphia Med. News*, July 15):—"They indicate that the intestinal juice digests albuminous matter and turns hydrated starch into sugar. This view agrees with the results of the majority of recent experimenters. The evidence regarding the action of the juice on fats is negative, but most experiments show that it has no action, and mine, if anything, confirm that view. . . . In conclusion, then, it seems very well established that the intestinal juice in some animals supplements the action of pepsin and trypsin on proteids, and turns hydrated starch to sugar. Its *rôle* is probably not a large one as regards digestion, but it may in some way assist absorption; for the intestine in flesh-eaters is pre-eminently an absorptive organ. Intestinal dyspepsia is, I believe, almost always due either to the stomach throwing insufficiently digested food into the intestines, or to atrophy of the muscular walls and defective absorption. The trouble with regard to the intestine is, in my opinion, more with muscle and absorption than with secretion. The stomach may be at the bottom of the disturbance all the time, unloading itself with indecent haste, or with its work half done."

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on August 17:

Corner, Matthew Cursham, 113, Mile End-road, E.
Dening, Arthur, Newhall-street, Birmingham.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Butler, Francis Henry, St. Mary's Hospital.
Brookfield, Samuel, Newcastle-upon-Tyne.
Gent, George Sidney, University College Hospital.

BIRTHS.

ENGLISH.—On August 21, at 128, Fulham-road, S.W., the wife of T. Johnston English, M.D., of a son.

FENN.—On August 19, at 1, Portland-terrace, Richmond, the wife of Edward L. Fenn, M.D., of a son.

KAY.—On August 12, at Bentley, Hants, the wife of W. Kay, M.R.C.S., of a daughter.

KEAR.—On August 19, at 42, Grove-road, Regent's-park, N.W., the wife of Norman Kerr, M.D., F.L.S., of a daughter.

LEE.—On August 17, at 31, Gwendwr-road, West Kensington, the wife of R. J. Lee, M.D., M.A., of 6, Savile-row, W., of a daughter.

LONGHURST.—On August 18, at 22, Wilton-street, S.W., the wife of A. E. T. Longhurst, M.D., of a son.

NICHOLLS.—On July 9, at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a son.

SMITH.—On August 18, at Aberdeen, the wife of Patrick Blaikie Smith, M.D., of a daughter.

MARRIAGES.

EPSTEIN—SUTRO.—On August 16, Joseph Herman Epstein, son of Herman Epstein, Esq., of Frankfort-on-the-Maine, to Louisa, daughter of Sigismund Sutro, M.D., F.R.C.P., of 37A, Finsbury-square.

HALL—CAREY.—On August 17, at Spiddal Church, county Galway, Henry George Hall, Surgeon-Major Madras Medical Service, to Clara Sophia, eldest daughter of the late Dr. Samuel Orby Carey, Glenelg, Adelaide, South Australia.

KEBBELL—BENNETT.—On August 1, at Hove, Brighton, Francis Clementson Kebbell, Esq., B.A. New College, Oxford, second son of W. Kebbell, M.D., of 21, Brunswick-place, Brighton, to Adelaide Eliza, youngest daughter of the late W. Bennett, Esq., of St. Albans.

WICHE—WILSON.—On August 17, at Lancaster-gate, Francis George Archibald Wiche, (68th Regiment) 1st Durham Light Infantry, son of Charles George Wiche, Surgeon-Major Bombay Medical Department, to Jane Nairne, daughter of the late James Wilson, Esq., of Victoria, Australia.

DEATHS.

EARLE, JOSEPH HERBERT, Surgeon Indian Medical Department, eldest son of Joseph Earle, M.R.C.S., of Brentwood, Essex, at Baroda, Bombay, on August 15, aged 28.

LEE.—The infant daughter of R. J. Lee, M.A., M.D., F.R.C.P., of 6, Savile-row, at 31, Gwendwr-road, West Kensington, on August 21.

PAUL, ANDREW, A.B., M.B. T.C.D., at 4, Torriano-cottages, Camden-row, N.W., on August 18, in his 79th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL ROYAL INFIRMARY.—House-Physician. (*For particulars see Advertisement.*)

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon and Registrar. Candidate smust be registered, members of the Royal College of Surgeons of London, Edinburgh, or Dublin, be thoroughly conversant with the use of the microscope, and unmarried. The honorarium is 75 guineas per annum with board and residence. Applications, with testimonials, to be addressed to the Chairman of the Weekly Board, 167, Piccadilly, W., on or before September 2.

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary £100 per annum, with board and lodging. Candidates must possess both a medical and surgical qualification obtained in the United Kingdom, and be duly registered. Applications, with testimonials, to be sent to the Secretary on or before September 9. The election will take place on September 21.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, PARKPLACE, MANCHESTER.—House-Surgeon. Salary £80 per annum, with apartments and board. Candidates must be duly qualified practitioners. Applications, with testimonials, stating age, to be sent to Mr. Edwin W. Marshall, Secretary, 38, Barton-arcade, Manchester, not later than August 28.

HORTON INFIRMARY, BANBURY.—Resident House-Surgeon and Dispenser. Salary to commence at £60 with board and lodgings. Candidates must be registered and unmarried. Testimonials and references to be sent to Mr. H. C. Davids, 18, Marlborough-road, Banbury, on or before Sept. 2.

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary £90, with gas, coal, apartments, and attendance; also £10 added for attending inmates. Applications, stating qualifications, and testimonials to be sent to F. Browne, Hon. Secretary, not later than August 26.

MORPETH DISPENSARY.—House-Surgeon. Salary £130 per annum, with furnished house. Candidates must be doubly qualified and registered. Applications, with testimonials, to be sent to D. F. Wilson, Secretary, from whom further particulars may be had, on or before September 4.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, LIVERPOOL.—Resident Medical Officer. Salary £80 per annum, with board, etc. Candidates must be duly qualified. Applications, with testimonials, to be sent to Robert Calder, Secretary, 4, Commercial-court, 17, Water-street, Liverpool, from whom all further information can be obtained, on or before September 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Manchester Township.—The Second District is vacant by the death of Mr. Octavius Dean: salary £220 per annum.

St. John, Hampstead, Parish.—The offices of Medical Officer for the Workhouse and First District are vacant by the death of Dr. William Henry Cook: present salary £100 for the Workhouse, and £100 for the First District.

APPOINTMENTS.

Auckland Union.—Charles Henry Wainwright, M.R.C.S. Eng., to the Howden District.

Beaminster Union.—Charles Edward Alford, M.R.C.S. Eng. and L.S.A. Lond., to the Misterton District.

Darlington Union.—Robert McLean Fraser, L.R.C.P. and L.M. Edin., L.F.P.&S. and L.M. Glasg., to the Central and North District. George Middlemiss, L.R.C.P. and L.M. Edin., L.F.P.&S. and L.M. Glasg., to the South and East District, and the Workhouse.

East Retford Union.—Walter Spencer, L.R.C.P. and L.R.C.S. Edin., to the Gringley District.

Midhurst Union.—Thomas Frederick Pearse, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Milland District.

Sunderland Union.—Alexander Bruce Low, M.D., M.C., L.R.C.S. and L.M. Edin., to the Workhouse.

Towcester Union.—Nathaniel Engleheart Cresswell, M.D. St. And., M.R.C.S. and L.S.A. Lond., to the Blisworth District.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following were the clinical cases on which the candidates for the diploma of Membership of the College were examined at the recent meetings of the Court. They were selected from the following metropolitan hospitals, viz.:—St. Bartholomew's, Guy's, St. Thomas's, the Westminster, St. George's, the Middlesex, Charing-cross, and the London. The patients were all of the male sex:—Hydrocele, angular curvature, cured aneurism, diseased knee-joint, herpes, rickets, facial paralysis, abscess in the testicle, diseased wrist-joint, molluscum, ruptured biceps, knock-knee, syphilis, injury to pelvis, skin disease, gouty disease of joints, injury to thigh, flat-foot, epithelioma, injury to elbow, tumour under the jaw, secondary syphilis, iridectomy, strumous ophthalmia, iliac abscess, cured popliteal aneurism, cyst in testis, strumous abscess over the sternum, node and ptosis, injury to nerves of the arm, obstructed vein, perforating ulcer, lupus, wry-neck, growth in groin, syphilis, cataract, etc

APPOINTMENTS FOR THE WEEK.

August 26. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

28. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

30 *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

September 1. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 19, 1882.

BIRTHS.

Births of Boys, 1388; Girls, 1282; Total, 2670.
Corrected weekly average in the 10 years 1872-81, 2649·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	796	732	1528
Weekly average of the ten years 1872-81, corrected to increased population ...	824·8	751·5	1576·3
Deaths of people aged 80 and upwards ...	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	9	5	...	5	...	3	...	25
North ...	905947	4	6	10	6	13	...	5	...	32
Central ...	282238	...	4	1	3	3	...	...	...	11
East	692738	...	7	13	2	10	...	1	...	26
South	1265927	1	15	11	6	21	...	2	1	60
Total	3816483	5	41	40	17	52	...	11	1	164

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29 660 in.
Mean temperature ...	60 6°
Highest point of thermometer ...	75·1°
Lowest point of thermometer ...	49 1°
Mean dew-point temperature ...	57·2°
General direction of wind ...	S.W.
Whole amount of rain in the week ...	0·33 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Aug. 19, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Aug. 19.	Deaths Registered during the week ending Aug. 19.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2670	1528	20·5	75·1	49·1	60·6	15·90	0·33	0·84
Brighton	109595	72	36	17·1	74·0	51·5	61·6	16·45	0·39	0·99
Portsmouth ...	129916	74	59	23·7	...	...	...	...	...	...
Norwich	83821	63	42	24·7	...	...	...	...	...	...
Plymouth	74449	50	29	20·3	75·3	54·0	61·5	16·39	0·49	1·24
Bristol	210134	142	79	19·6	71·4	49·3	60·3	15·73	1·33	3·38
Wolverhampton .	76756	51	25	17·0	78·6	44·0	60·1	15·62	0·50	1·27
Birmingham ...	408532	286	199	25·4	...	...	...	...	...	...
Leicester	126275	105	69	28·5	...	...	...	...	...	...
Nottingham ...	193573	144	124	33·4	77·6	45·0	61·4	16·33	0·47	1·19
Derby	83587	55	28	17·5	...	...	...	...	...	...
Birkenhead ...	86582	59	27	16·3	...	...	...	...	...	...
Liverpool	560377	351	295	27·5	74·0	50·0	59·1	15·06	0·56	1·42
Bolton	106767	52	53	25·9	72·3	43·9	57·1	13·95	1·12	2·84
Manchester ...	340211	224	175	26·8	...	...	...	...	...	...
Salford	184004	122	108	30·6	...	...	...	...	...	...
Oldham	115572	73	48	21·7	...	...	...	...	...	...
Blackburn	106460	74	47	23 0	...	...	...	...	...	...
Preston	97656	78	44	23·5	...	...	...	...	...	...
Huddersfield ...	83418	55	43	26·9	...	...	...	...	...	...
Halifax	74713	49	36	25·1	...	...	...	...	...	...
Bradford	200158	118	79	20·6	76·0	46·3	60·3	15·73	0·74	1·88
Leeds	315998	192	184	30·4	75·0	45·0	60·9	16·06	0·89	2 26
Sheffield	290516	216	153	27·5	74·0	46·0	59·1	15·05	0·74	1·88
Hull	158814	129	92	30·2	...	...	...	...	...	...
Sunderland ...	119065	90	70	30·7	80·0	47·0	60·7	15·95	0·51	1·30
Newcastle	147626	120	85	30·0	...	...	...	...	...	...
Cardiff	83724	65	43	25·9	...	...	...	...	...	...
For 28 towns ...	8469571	5779	3800	23·4	80 0	43·9	60·2	15·67	0·67	1·70
Edinburgh	232440	123	80	18·0	69·0	48·2	58·9	14·94	0 55	1·40
Glasgow	514048	336	212	21·5	...	...	...	...	...	...
Dublin	348293	144	134	20·1	72·2	47·3	58·9	14·94	0·48	1·22

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·66 in. The lowest reading was 29·44 in. on Wednesday morning, and the highest 9832. in. on Friday evening and again at the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

The Administration of Chloroform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I would not obtrude my sentiments on public notice, save in the interests of society, which seem to me likely to be compromised by a serious error in the directions laid down for the administration of chloroform, on the authority of the Académie de Médecine, in your impression of May 13, 1882: "Constantly watch the respiration, without caring about the pulse." Although almost coincident in opinion on the other items of advice in the article, my theory and practice in reference to the anæsthetic are in diametrical opposition to this. Having given chloroform in a thousand cases since its adoption in 1848; having achieved the melancholy distinction of two fatal events, and an approximation to that issue in several others, I think my experience may justify the wisdom of my counsel: Most carefully watch the pulse, and pay comparatively little attention to the lungs. The death is one from syncope, not asphyxia. That special tendency that the drug possesses to relax or paralyse the muscles of the system, and which constituted one of the objections advanced against it by operating surgeons in its early day, ultimately may affect the heart, calculated by its insular location, paucity of nerve-force, and circular arrangement of fibre to resist its primary attacks. In my first case of death the patient breathed stertorously some five minutes after the arrest of cardiac action; in my second the chest heaved for two or three minutes, but the pulse was gone. Since those distressing occasions I have seen a large percentage in circumstances equally perilous, but with satisfactory results.

Proceed, where death is imminent under chloroform, as your knowledge of physiology would prescribe in a case of fainting or collapse. Lay the patient on his back with the head hanging over the side of a bed or table, elevate the arms and legs in perpendicular, keep the blood in contact with the great centres of the sympathetic and cerebro-spinal nervous systems, and reaction will occur in 99 per cent. of the cases. Always administer chloroform after a four hours' fast. That a very large number of the casualties from chloroform occur in cases where a quantity of food lies undigested in the stomach, is a fact patent to our observation, though not yet to be accounted for by scientific induction. In both my fatal cases a hearty meal had recently been taken. In a third, a seaman, chloroform was given to facilitate the introduction of a catheter. He became deeply under its influence while sitting on a chest in the forecastle. I at once effected my object, but looking at his face, detected his appalling condition by the lividity, the half-closed eyes, and open mouth. I instantaneously desired two of his companions to stand on the chest and hold him by the heels inverted, when by the law of gravitation, pressure of the stomach on the diaphragm, or other cause, he vomited a large quantity of food, his features glowed with the rush of blood through the capillaries, and the circulation at the wrist was re-established. Always prescribe the horizontal position. The blood requires less cardiac effort for propulsion in the horizontal than in the perpendicular. No forms of heart-disease should interdict recourse to chloroform but those characterised by atrophy of the tissue or anæmic action of that organ. I have several times given it in the last stage of valvular disease with enlargement of the ventricles, not only without risk, but with great benefit. Does not reason tell us that when a patient is compelled to assume a semi-circular sitting position to moderate a heart acting like a steam-engine, anything restraining the *vis a tergo* must be beneficial?

Finally, it may be asked why throwing the blood on the nervous centres should be preferred as a restorative. I reply, Because the animal circulation is maintained on magnetic principles: the infinitesimal particles of iron in the blood corpuscles generate an electrical influence with the nerve-filaments in the coats of the vessels and endocardium, carrying an impulse over the system, which impulse is reduplicated at the brain, spinal cord, and sympathetic, with fresh contributions of electricity. In fact, Nature carries two strings to her bow. If life fail at the heart, it may be re-established by the brain, even as the inverse of the proposition obtains—failing at the brain, it is often re-established by the heart.

I am, &c.,
E. G. Figg, M.D.

Williamstown, Victoria, Australia, March 7.

Agricola, M.D., Sidmouth.—You will find John Hunter's paper on the subject in the *Philosophical Transactions.* A twin heifer calf that has a bull calf for its brother is called a "freemartin," and will not breed, but the bull calf may be herded with the cows with the desired effect.

Quackery.—The Excise duty on medicine vendors in the year ending March 31 last was £4688 15s. net, in addition to the stamp duty on patent medicines of £144,883 9s. 6d.

Small-Pox: South Africa.—Advices of the 17th inst. state that small-pox was rapidly spreading at Capetown. The Malay population resist isolation and treatment.

F. M. T.—The ancient custom referred to in a daily contemporary with regard to presentation of Royal venison to the Lord Mayor and other civic functionaries was the case with the Royal College of Surgeons, who claimed two bucks and two does annually. The haunches were given to the President and Vice-Presidents, and the shoulders to Mr. Belfour the Secretary, and Mr. Clift the Conservator. Some years ago it was reduced to one buck and one doe, and finally abolished.

St. Thomas.—Mr. John Flint South died on January 8 last; and we are sure the Rev. Charles Lett Feltoe, of St. David's College, Lampeter, South Wales, who is writing his biography, will be glad of any correspondence you may have in your possession.

Police Ambulance Classes.—Certificates were presented at Scotland-yard a few days ago to seventy-nine policemen who had passed the examination of the St. John Ambulance Association.

Oldham Hospital Saturday.—The collections this year amount to £985, which is more than last year. After payment of expenses upwards of £900 will be handed to the Infirmary. The institution is receiving considerable public support. The last donation was from a lady, of £200. The building is in course of being very much enlarged.

The late Dr. James Miller.—This deceased gentleman, who died somewhat suddenly, had been one of the police divisional surgeons of the Clerkenwell Division for ten years, and the police, to show their respect, gave him a public funeral, which took place on Saturday last. Mr. Acting-Superintendent Hunt, seven inspectors, twenty sergeants, and 180 constables, with the band, attended. Dr. Miller resided at 1, Great Percy-street, Clerkenwell, and was buried in the Kensal Green Cemetery.

Defective By-laws.—The Corporation of Brighton took proceedings (the first prosecution of the kind) against a builder for using five houses without giving notice of their completion, in order that the surveyor might view them, and give a certificate of their fitness for occupation. The defendant was further summoned for not providing sufficient water-supply and drainage ventilation. He pleaded guilty to both charges, alleging his ignorance of the by-laws. The magistrate said defendant had been guilty of an offence under the by-laws, but the latter provided no punishment for it. The borough surveyor urged that the penalty for not giving notice was £5, but the magistrate pointed out that that penalty applied only to notices of commencing to build, and not to notices of completion of the work. The first summons was consequently abandoned, but a penalty of 40s. was imposed for not providing sufficient drainage ventilation.

Hampstead.—Dr. Gwynn, Medical Officer of Health to the Hampstead Vestry, reports that the death-rate for the year, including non-parishioners, who died in the various public institutions in the parish, was only 13·2 per thousand. Deducting non-parishioners, the death-rate was but 12·7. The deaths from zymotic diseases due to the fatality of scarlet fever were 2 per thousand. Only four parishioners died from small-pox. The necessity for public baths and washhouses in the parish is strongly urged in the report.

A Sanitary Difficulty.—Early in the present month a woman hung herself at Bootle, near Liverpool, and her body was placed in the mortuary. A coroner's certificate was given to the deceased's husband, who put it into his pocket and took it to sea with him. The decomposition of the body led to complaints, and the workhouse governor was consulted, but he said the body could not be interred until the husband was found and the coroner's warrant obtained. Subsequently the nuisance inspector applied to the borough magistrates for an immediate order for the removal of the body, which had become a nuisance. The difficulty the magistrates felt in dealing with the matter was that there was no by-law to meet the case. After considerable deliberation, they decided that the nuisance must be abated, and the order applied for was granted.

Benevolence.—The late Mr. Robert Clayton Mercer, cotton manufacturer, of Oakenham House, near Accrington, has bequeathed £1000 to the Victoria University, Manchester, for the foundation of a scholarship in chemistry; £500 to the Manchester Royal Infirmary; £500 to the Manchester Eye Hospital; and £500 to the Blackburn and East Lancashire Infirmary.

New Scholarship in Midwifery at Edinburgh.—At a recent meeting of the Senatus, a letter was read, intimating the foundation by Mrs. Thomson, of Rosalee, Hawick, of a scholarship in memory of her father, the late Mr. James Scott, of Allanshaws. This is the second scholarship in the same department that is open to the students of Edinburgh University. In both cases the scholars receive the yearly interest of £1000.

Still More are Needed.—Of late years, recreation grounds, disused churchyards, and small plots of ground have been converted into pleasant places for public resort, but there is still a great need of open spaces suitable for the healthful enjoyment of children. The suggestion has consequently been made, that in crowded districts where the Metropolitan Board of Works have cleared large areas, on which stood dilapidated houses, these sites (many of which are unfit for years) might be thrown open as recreation grounds "until let for building purposes." A small outlay would adapt such spaces into playgrounds for young children.

Bathing in the Surrey Canal.—The Camberwell Vestry has appointed a special committee to confer with the directors of the Grand Surrey Canal Company, with the view of protecting the public from the annoyance and danger attending bathing as at present practised—principally by lads and children—in the Canal. They purpose to establish, under proper management and efficiency, the control of a public bathing-place in the parish, where means of saving life shall be always available.

Poisonous Bullets.—A German journal refers to a discovery by a M. Gros, of Paris, with regard to the complaints which were made of the use of poisoned bullets by the combatants on both sides during the Franco-German war. He explains that the construction of the modern breech-loading arms causes the bullet to convey with it a portion of the hydrocyanic acid which the explosion of the powder has caused to be accumulated in the barrel. Even if poisoning to a mortal extent does not take place, it is remarked that the healing of wounds is materially retarded by this circumstance.

Mortality, India.—The death-rate of Bombay city for the week ending July 25 was 29·31 per thousand per annum, of Calcutta 21·4, and of Madras 33·7.

Tricycling for Women.—The *Sanitary Record* states that Mrs. Garrett-Anderson, M.D., has, with her usual enlightened comprehension of the advantage of exercise as a hygienic element, given her patronage to the tricycling movement as concerns women, and has accepted the Vice-Presidentship of the South Lambeth Tricycle Club. The number of ladies propelling themselves on tricycles, or sharing the "nice conduct" of sociables on country roads, is one of the most healthy symptoms of an age in which physical well-being is considered worthy of attention, as well as mental cultivation.

Medical Instruction, Russia.—The Minister of Public Education has found that the experiment of giving elementary instruction in medicine at the municipal schools of St. Petersburg has been so successful that he has authorised its extension to all the municipal schools throughout the empire.

Clear of the Small-pox Epidemic.—A satisfactory statement concerning the small-pox epidemic was made at the meeting, a few days since, of the West Derby Guardians. Although the Mill-road Hospital received all the small-pox cases from Liverpool and the whole district, there was not, at present, a single case in the house—a fact which proved that the neighbourhood was clear of the epidemic. Since January 1st, 1861, there had been received into the Hospital 167 patients, of whom twelve had died.

Cremation.—A Congress of the Cremation Societies, Italy, will be held in Modena in September—next month.

A Pure Beverage.—In the Chancery Division, last week, a petition was heard for a winding-up order *in re* The Pure Beverage Company. Mr. Justice North inquired what "pure beverage" was, and, in reply, counsel said that the non-alcoholic drinks in favour with the temperance movement were so termed, and he supposed they were called "pure" because they were non-alcoholic; whereupon the judge remarked, in that case Thames water would be called pure.

Triennial Election of Guardians.—The Oldham Board of Guardians, having resolved to adopt a system of triennial election, have consulted the Local Government Board as to whether the section means, in respect to a majority of owners and ratepayers whose consent has to be given, a majority entitled to vote, or a majority of those who do vote. The central authority has replied that every person who does not vote must be considered as having had no vote, therefore a majority means, of those voting.

Indian Statistics.—The Census gives the total population for the North-West Provinces and Oude as 44,107,889, against 43,028,389 on previous return (22,912,556 being males, 21,195,333 females); villages, 105,124; towns, 297; the number of persons per square mile, 415.

Post-mortem Examinations without Fees.—A hospital doctor made an application at the Islington Coroner's Court to the coroner for his fees for a post-mortem examination and evidence. An order for a post-mortem examination was sent down by the coroner, and the doctor also attended the inquest and gave evidence, but no fees whatever were allowed. The deceased had been taken into the hospital in a dying condition, and ultimately died there.

COMMUNICATIONS have been received from—

Dr. J. R. Wolff, Glasgow; Mr. H. J. Martin, Norwich; Dr. R. Neale, London; The Registrar of the Apothecaries' Hall, London; The Secretary of the International Fisheries Exhibition, London; Messrs. R. Morrison and Co., London; Metropolitan Asylums Board, London; Dr. J. W. Moore, Dublin; Mr. T. M. Stone, London; Mr. E. B. Treate, New York; The Registrar-General for Scotland; The Secretary of the Sanitary Institute of Great Britain, London; The Sanitary Commissioners, Punjaub; Mr. W. H. Thorold, Norwich; Mr. J. Chatto, London.

BOOKS, ETC., RECEIVED—

The Efficient Dosage of Certain Remedies, by E. C. Seguin, M.D.—Report on the Sanitary Condition of the Whitechapel District for the Quarter ended July 1, 1862—Zur Lungenchirurgie, dritte Mittheilung, von Wilhelm Koch in Dorpat—The Illustrated Quarterly of Medicine and Surgery, vol. i., No. 3—Hereditary Syphilitic Eruptions, etc., by James Startin—The Relation of the Parliamentary Bills Committee of the British Medical Association to the Compulsory Notification of Infectious Diseases—British Pharmaceutical Conference Introductory Address: The Relation of Pharmacy to the State: by the President, Professor John Attfield, Ph.D., F.R.S., F.I.C., F.C.S.—On Diseases of the Chest, by William Stokes, M.D., etc.—Report of the Royal Commissioners appointed to Inquire into the Medical Acts, etc.—Lock Hospitals, etc., by Frederick W. Lowndes, M.R.C.S.—Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1861.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Academie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Journal de Saxon—La Oftalmologia Practica—Canada Lancet—Students Journal and Hospital Gazette—Medical News—Boston Medical and Surgical Journal.

ORIGINAL LECTURES.

THE BRADSHAW LECTURE

ON THE INFLUENCE OF THE SYMPATHETIC ON DISEASE.

Delivered before the Royal College of Physicians of London, August 18, 1882.

By EDWARD LONG FOX, M.D., F.R.C.P.,
Consulting Physician to the Bristol Royal Infirmary.

When you, sir, did me the honour of inviting me to deliver this lecture here to-day, I was tempted to the choice of a subject that is not only a vast one, but also, perhaps, somewhat indefinite.

Anyone who has worked for many years in the science and art of medicine must feel some diffidence in expressing views that may be open to controversy, before any body of men so highly educated as are the members of the medical profession at the present time. But this diffidence is necessarily rendered greater when his immediate audience are persons closely connected with this great College; and although this feeling must obtain with reference to all lines of thought connected with medical science, it is very specially the case with regard to the subject of this lecture, the influence of the sympathetic system on disease, inasmuch as, without depreciating the earnest investigations carried out in Germany, in France, in Italy, in Russia, on the physiology and pathology of this portion of the nervous system, yet much of the best observation on the subject, much of the best reasoning on what may be called sympathetic phenomena, based on clinical and pathological data, has been placed before the profession at large by Fellows and Members of this College of Physicians. And if to-day the mention by name of any observer be perchance omitted, it will not be from want of due recognition on my part, but either because independent observations have been made in this, as in other scientific questions, almost synchronously in different countries, but chiefly that the results of many investigations have become, like those of Claude Bernard, household words amongst us. One word more I should like to say. Some years ago, the Sympathetic System was the subject of the Astley Cooper Prize at Guy's Hospital. Although the prize essay has never been published, by the kind permission of the author, Mr. George Arthur Woods, of Southport, and the extreme courtesy of the authorities at Guy's, I have been favoured with a perusal of it; and it is only right thus publicly to express my obligations.

The influence of the sympathetic system on disease must necessarily depend on its functional position in the economy. Is it in any sense an independent system? Has it functions of itself? Do its ganglia own a power possessed by no other portion of the frame, disconnected from any other system? or is the sympathetic only a nervous organ of conduction, carrying impressions from the internal viscera to the cerebro-spinal system, conducting to these internal viscera, and to the vessels, orders from the higher nervous centres? Are the sympathetic ganglia only the central formation from which peripheral nerves are formed, and the residue left after their formation? Is the sympathetic, in Hermann's words, nothing else than a branched roadway from the cerebro-spinal system, into which overflow paths of innervation from all points of the great nerve-centres, to spread to all sides of the periphery?

Did the sympathetic possess no intrinsic independence, it would be idle to speak of its influence on disease, except in so far as its connecting lines of fibres were compressed, or their conducting power otherwise interfered with. But, bound up together as all nerve-tissue in the body is, the fœtus has been expelled from the uterus at, or almost at, full time, showing, therefore, a normal capacity of absorbing nutrition, and a healthy circulation, without any trace of a cerebro-spinal nervous centre, owning only the sympathetic system as the nerve-element in its composition.

The opinion of Claude Bernard, that the sympathetic ganglia are real nervous centres, that the sympathetic is the motor nerve of the circulation, that the vaso-motor system is the regulator of heat, of nutrition, and of force; the dictum of Goltz, that the tone of the arteries is maintained by local centres, situated in their own immediate vicinity, and that it is wholly independent of the cerebro-spinal axis; the fact mentioned by Woods, that reflex irritation of vaso-motor nerves (unlike reflex irritation of cerebro-spinal nerves) is entirely limited to the particular tissue or organs supplied, so that these nerve-fibres must have their centres in the sympathetic ganglia; the statement of Parkes, that nutrition is perfectly carried on with complete destruction of the cerebro-spinal centres,—are all founded on observations or experiments that cannot be controverted.

Seeing, too, the impossibility of tracing a fibre of Remak in the tissue of the brain or spinal cord, the existence of vaso-motor centres in these organs, proved as it is by vaso-motor disturbances on lesions of certain districts of the cerebro-spinal centres, affords by no means positive proof of sympathetic ganglia being directly fed and influenced by them. The sympathetic connexion between the medulla oblongata and the two chief centres in the cervical cord—the vaso-motor centre for the head and face, and the oculo-pupillary—is proved by experiment and by pathology. Such centres may lie in the cord, and yet not be of it; and the whole system consists not only of the well-known chains of ganglia, of the nerves and plexuses of the internal organs, of a vaso-motor apparatus for the whole body, but of important ganglia that are situated, probably for purposes of correlation, within the tissues of the great centres of the cerebro-spinal system.

The possible independence of the sympathetic is shown by an experiment of Vulpian. He found that some days after the transverse section of the sciatic nerve, or of the brachial plexus, when the corresponding pulps of the paws of the animal had become quite pale and anæmic, one might, by slight rubbing of these pulps, cause a reflex congestion. This vaso-dilator reflex effect seemed to the author to prove the existence of peripheral nervous centres, ganglia, and nervous cells in relation with the vaso-motor nerve-fibres.

And this leads to one more preliminary remark, viz., that certain phenomena seem to prove indubitably the existence of vaso-dilators. Not only must Claude Bernard's discovery of this property in the chorda tympani, and Eckhart's in the nervi erigentes, be accepted as proof of this view, but it is more than probable that all the centrifugal nerves from the cerebro-spinal system carry vaso-dilator fibres. They act by inhibiting the activity of the ganglion cells in the nervous plexuses around the vessels, thus causing a diminution of the vascular tonicity. They are to be considered not as constant, but as occasional antagonists of the vaso-constrictor nerves. Goltz held that the dilatation which occurs after section of nerves is due not to paralysis of the vaso-constrictors, but to stimulation of vaso-dilator fibres; and in his original experiment on the chorda tympani, Claude Bernard showed that both constriction and dilatation of vessels may be obtained not only directly, but by reflex action.

Dr. Handfield Jones has shown that irritation may be reflected from the fifth nerve on to the vaso-motor nerves of the arteries supplying the skin of the face, and that these, in consequence of the morbid impression, become dilated, not contracted as they nominally should according to the laws of reflex action.

The lesions to which the sympathetic is subject are manifold. In a large number of these coarser lesions the influence is not that of the sympathetic on disease, but of disease on the sympathetic. Both in ataxy and in tetanus redness of the semilunar ganglia has been observed. Inflammation of the semilunar ganglia has been associated with headache, hypochondriasis, vomiting, and death from marasmus; inflammation of the left portion of the solar plexus with pertussis, spasmodic vomiting, and convulsions; inflammation of the ninth and tenth thoracic ganglia, after retrocession of an exanthematous disease, with opisthotonus, vascularity of the sympathetic nerves in the chest, and of the semilunar

ganglia with tetanus; great increase in the size of the lower cervical ganglia with cretinism; great increase in size of all the ganglia with idiocy; enlargement of all the abdominal sympathetics and of the splanchnic nerves with diabetes; increase in size of the semilunar ganglia with a case of tuberculous supra-renal capsule; increase of size of the same ganglia with cancer of the stomach. One of the semilunar ganglia was of the size of a filbert, and cartilaginous, in a case of madness. The abdominal ganglia have been found large, lobulated, yellowish, and of firm consistence in chronic peritonitis. Cholera has been sometimes associated with inflammation of the solar plexus and of the semilunar ganglia.

According to Pio Foà, lesions are most commonly seen in the cervical and the abdominal ganglia. These lesions are —simple and fibrous atrophy, hyperæmia, sclerosis, fatty and pigmentary infiltration, amyloid degeneration, accumulation of colourless blood-corpuscles, and the presence of micrococci in the bloodvessels of the ganglia. These changes are well marked in syphilis, leukæmia, a high degree of cachexia, pellagra, tuberculosis, cardiac disorders, and infectious diseases.

Fournier thinks that the sympathetic system is affected in secondary syphilis, as shown by variations of temperature, by sweating, and even by epileptic seizures; but his views seem founded more upon symptoms than on pathological anatomy.

The most usual lesions are pigmentation, colloid degeneration, with proliferation of endothelial cells, and secondary fatty metamorphosis; interstitial hyperplasia, leading to atrophy, and sclerosis of nerve-elements; and such lesions are more than enough to modify vaso-motor functions, and, according to their seat, to lead to very various morbid phenomena.

Morselli has found fatty degeneration and atrophy of ganglion cells, with thrombotic obliteration of the vessels of the cervical ganglia; whilst, in a case of unilateral swelling, Ebstein has seen very dilated and varicose bloodvessels in the ganglia of the affected side. Colomiatti has seen lipoma of the sympathetic, and a tuberculous nodule in the last left dorsal ganglion but one of the great sympathetic, and a similar nodule on the communicating bands between this ganglion and the one above it. The same observer has seen cancer of the semilunar ganglia compressing and atrophying the cells entering into the nerve-trunks and the substance of the neurilemma.

In sunstroke, hæmorrhage has been found in the upper cervical ganglion. Hilton saw attenuation of the right side of the heart, associated with shrivelled ganglia of the same side of this organ; whilst Giovanni considers fatty degeneration rare, but thinks that the sympathetic resents most of the diseases affecting the whole system, and that lymphatic infiltration of its ganglia is the expression of the peculiar influence which it suffers. This condition, he believes, he has found in pleuro-pneumonia, cardiac disease, tuberculosis, aneurism of the aorta, diffused tumour, acute and chronic nephritis, chronic enteritis, cirrhosis of the liver, suppurating ovarian cyst, typhoid fever, cancer, puerperal peritonitis, puerperal fever, pyæmia, pellagra, syphilis, scurvy, leukæmia splenica, tabes mesenterica, tabes dorsalis, erysipelas, epidemic cerebro-spinal meningitis, hydrophobia, exophthalmos, angina pectoris, and diphtheria.

An atrophic shrinking of the nerve-cells proper, and a calcareous mass occupying the position of the inferior cervical ganglion, were found by Dr. Shingleton Smith in a case of exophthalmos. A late observer has found very definite lesions of the sympathetic in phthisis—dilatation of vessels in the ganglia, proliferation of the connective tissue, hyperplasia of the epithelial covering of the capsules of nerve-cells, atrophy and pigmentation of cells. In chronic cases there was found an enormous development of dilated bloodvessels; the external membrane of the ganglia (with its internal processes), the external capsule of the ganglionic nerve-cells, the neurilemma of the nerve-fibres, and the tunica adventitia of the bloodvessels, were all greatly thickened. This was especially the case in the interior cervical ganglion. The lesions of the sympathetic on the healthy side in unilateral phthisis were but slight. The sympathetic lesions may be considered secondary. But the ganglionic affection, though caused by the previous disease, may itself induce some of the phenomena of the disease, as the hectic flush of the cheek and the facial perspiration, even if it do not determine certain trophic changes in the lungs.

The investigations of Dr. Saundby, one of our most accurate pathologists, seem to prove that the relationship between the renal lesion in Bright's disease, and the changes observed in the ganglia and surrounding connective tissue, must be regarded as secondary rather than primary.

It is easy to understand that such lesions, secondary in themselves to the diseases with which they are connected, yet impress upon the course of the disease certain special phenomena: flushing, sweating, tinnitus, headache, faintness, palpitation, constipation, diarrhœa, vascular congestion of the intestines, diuresis, etc., are all examples of this.

These facts are more than mere matters of pathological interest. Given a recognisable lesion of a sympathetic ganglion or nerve, we find certain phenomena following this as a sure consequence. It is nature's own experiment to teach the physiology of the sympathetics. But, on the other hand, given these same phenomena, without a coarse lesion of the sympathic nerve or ganglion, are not we justified in saying that they depend on a morbid condition of these structures, even though such a condition cannot be recognised by our means of investigation? This is what happens frequently. The common distinction between organic and functional disease of the sympathetic is only an unscientific method of expressing this thought. A ganglion, or a series of ganglia, apparently healthy, is changed in some occult way by the sun's rays, by the circulation of blood altered from its normal condition by what we call "irritation" carried to it from disease in a distant organ, or by emotions. We cannot doubt that these influences change in some way the equipoise of the ganglion: for as their result are seen phenomena precisely corresponding to the effects of coarse experiments upon the sympathetic in animals, and of easily recognised lesions upon these organs in man. We see the starting-point of the irritation, the channels by which the irritation is conveyed, the consequence of the irritative action beyond the ganglion; but the absolute condition of the ganglion itself, in so far as it differs from its state in health, is incapable of being in all cases demonstrated. The irritation may arise from some portion of the same nervous system, or from any portion of the cerebro-spinal. It may be reflected only on its own fibres, or upon cerebral or spinal nerves. The exodic response from the ganglia may be carried back solely to the point of origin, or in very various directions to many organs, and through many and various channels. The reflected effects may be motor, sensory, or vaso-motor, or all together: and yet the ganglionic centre of this reflex are may seem, even microscopically, to be unchanged.

That change of some kind ensues cannot be doubted. All that can be said is, that it is a change so minute as so far to baffle our means of research, or so transient as to pass away before the possibility of post-mortem examination.

In a very interesting paper read at the International Medical Congress last year, Dr. Weakes speaks of the inferior cervical ganglion as a correlating nerve-centre. He has formulated anatomically data that are occurring to all practitioners every day of their lives; and his paper seems to me to afford additional evidence, both of the independence of at least the vaso-motor portion of the sympathetic, and also of its multifarious connexions with the cerebro-spinal system. He shows the association between injury of the fibres of the brachial plexus and loss of consciousness. The shock resulting from the concussion of the brachial nerves is propagated to the inferior cervical ganglion, and thence reflected as a wave of vessel-dilatation to the vertebral artery. This dilator wave is appreciated first of all in its peripheral branches, producing an immediate large accession of blood to them. This effect on the internal auditory branch of the dilated vertebral artery, the sudden tension of the intra-labyrinthian fluid, produces the phenomena of falling and unconsciousness. Through the inferior cardiac nerve of this ganglion, great agitation of the heart may be induced. The vertigo attending indigestion under certain circumstances is an illustration of the same correlation, sometimes with, sometimes without, a sensory aura. This vertigo may also be associated with mottling of the hands and forearms, due to congestion of the superficial arterioles.

This note on the correlation of the ganglia can be expanded almost *ad infinitum*. The syncope induced by a blow over the solar plexus, the palpitation and even faint-

ness consequent on indigestion, the pain, vomiting, and depression of spirits set up by the passing of a gall-stone, the transient hemicrania produced in some people by the presence of ice in the stomach, the flux from the intestinal vessels as a sequence of the irritation of some foreign body in the canal, the numerous phenomena—motor, sensory, and vascular—associated with renal calculus, the peculiar pulse of peritonitis, the collapse of perforating ulcer of the stomach or intestine, perhaps the increased circulation of blood in the liver and the increased secretion of bile following injury to the solar plexus,—are all instances of a similar fact with reference to this great nervous centre and its immediate branches.

But it remains for the hypogastric plexus to afford the most suggestive illustrations of this correlation. Without saying that all hysteria owns an uterine origin, the phenomena that are sequential to the multifarious lesions of the uterus and its appendages can be seen to implicate most of the important organs of the body. The deep-seated sense of pelvic uneasiness, nearly similar in position to, and sometimes equalling in intensity, the sacro-coccygeal pain attending piles, the paresis of intestine evidenced by meteorismus, the increased flow of limpid urine, the vomiting, the hiccough, the frequent diarrhœa, the palpitation, the faintness, the sighing respiration, the globus, the difficulty in deglutition, the blushing, the dilated pupils, the tears, the tinnitus, the excitation of the emotional area, the occasional epilepsy, melancholia, and mania, to which such patients are liable, are all examples of afferent irritation carried to the solar plexus, and thence from ganglion to ganglion of the sympathetic chain to the three cervical ganglia—thence to the eye, the cerebral vessels, and the medulla oblongata.

The same causes reflected from sympathetic ganglia to the sensory centres induce the various neuralgiæ met with under these circumstances; whilst a similar irritation of a ganglion sending efferent nerves to a motor centre will lead to hysterical torticollis, to those manifold tonic contractions of limbs or of groups of muscles frequently seen, especially in hysterico-epilepsy; or to various clonic phenomena, such as the rapid twinkling of the eyelids.

Nor is the reverse side of the picture without its peculiar interest. Not only may uterine irritation induce emotion, but emotion may in itself induce all kinds of vaso-motor irritation or paresis, especially the latter. The emotion of terror, affecting primarily vaso-motor centres in the cortex of the brain, sends a paretic effect down the various ganglia in the body, besides inducing its own particular conditions on the cerebro-spinal motor nerves. It affects especially the sympathetic cardiac nerves, the accelerating nerves of the heart, leaving the chief influence on this organ to the inhibitory branches of the vagus, which this nerve derives from the spinal accessory. Blanching of the face and even syncope may result. By its paretic effect on the splanchnic nerves, the great inhibitory nerves of the intestine, the peristaltic movement of the gut is morbidly increased, and the tendency to evacuation of the bowels results, so frequent with young recruits on first going into action.

Blushing, a sense of heat, and sometimes arterial pulsation, are ordinary effects on the face in certain emotional states—anger, joy, shame, bashfulness, and intimidation. Vulpian believes the emotional centre to reside in the annular protuberance. From this centre the medulla oblongata and spinal cord are influenced; and thus, according to circumstances, may be caused either contraction of certain muscles of animal life, or a sudden state of muscular feebleness, or disturbance of the cardiac movements, or secretory alterations in the intestines, or, coincidently with these, some modifications of vascular tone in certain regions of the body, especially of the face and head.

Blushing is not always limited to the face. In nervous women it is seen on the anterior superior part of the thorax as far as the mammæ, and even to the lower part of the sternal region, and above the clavicles, and over the shoulders. In a patient now under observation, the conjunctivæ redden, tears flow, a dark purplish blush suffuses the face, the neck, especially below the ears, and the whole of the anterior chest to the nipples, if she merely think of anxieties that she may, but very improbably will, have to undergo. In this case the purplish blush is not in all places synchronous, but various islets of colour are separated by regions of skin of ordinary whiteness, and gradually coalesce, illustrating the observation of other physicians, that the skin is mapped out into small vascular territories, more or less independent of each other, each under the influence of distinct vaso-motor nerves, or even of peripheral vaso-motor ganglionic centres. In a nervous man, whose case is recorded by Vulpian, blushing occurred on exposure, not only over the above-named regions, but over the anterior surface of the abdomen and the upper half of the thighs.

Paralysis of the splanchnic induces hyperæmia of the capillaries of the contorted renal tubules, with albuminuria and diuresis.

Emotional influence may reach the seven lower dorsal ganglia, from which the splanchnic nerves are derived, or with which at least they are connected, from the vaso-motor centre in the medulla oblongata, by a branch that descends through the osteo-fibrous sheaths, which incases the vertebral artery, and thus by way of the inferior cervical ganglion; or the channel of conduction may be by way of the cord also.

One sees, therefore, anatomically, how small an expenditure of force emotion may partially paralyse the cardiac and splanchnic branches of the sympathetic.

The vesical plexus, containing a few motor but more sensory and reflex acting fibres, is constantly affected reflexly by irritation from adjoining organs. But its chief motor nerves are derived from the superior and inferior genito-spinal centres in the spinal cord; and the effect of emotion on the bladder, causing frequent micturition, one of the most usual results of terror, and probably experienced by a large number of candidates for examination, is due to paralysis of the purely sympathetic plexuses, allowing undue play to the motor influence of the sacral nerves from the centrum genito-spinale.

This reversal of the course up and down the sympathetic, the emotion acting directly downwards on the various ganglia, the uterine irritation acting upwards, in what may be called a series of reflex arcs, forms the main difficulty in the diagnosis of the cause of that aggregate of morbid phenomena that, as a convenient expression for formulating our ignorance, we term hysteria, and has been well formulated by M. de Berdt Hovell. And putting aside those cases of crying and laughing, of globus, of hysterical vomiting, clanging cough, *et hoc genus omne*, which are really under the influence of the will of the patient, or are indulged in from a selfish desire to concentrate all attention upon herself, the protean disease under discussion is, in the more numerous cases that are likely to fall under the notice of a physician, a very real ailment. Cases that are frequently the *opprobria medicinæ* are so, because the exciting cause is not found, sometimes scarcely sought for; and Dr. Tilt, and those who think with him, have done good service in reminding us that the name given to the disease by our predecessors was founded very largely on ascertained fact. Scherschensky finds that the uterine plexus contains the most important, if not the only, motor nerves, which can produce actual movement of the uterus on stimulation of their peripheral ends. Stimulation of the central ends produces only violent vomiting.

Nor is it only in strictly physical phenomena that this pelvic irritation manifests itself. The somnolence, the trance, the contracture, the clonic convulsion of the hystero-epileptic, are evidently due to reflex paresis or reflex irritation. Do not the more purely mental phenomena own the same origin? Is not emotion a brain-discharge, at least as much as epilepsy? and the suspicion, the anger, the fear, the melancholy, seen in various phases of this strange condition, are surely due to the variation in the calibre of the arteries, and consequent change in blood-supply, due to the influence of the cervical ganglia on the circulation of the brain.

Many people shrink from the word "materialism." It is because the word has been used to represent so limited an outlook. To recognise that the brain acts in accordance with the great laws of nature; that this thought and that emotion are, so to speak, discharged in relation to the amount and quality of the circulating fluid and the regions it traverses, is not materialism in a bad sense, but simply a statement of the method by which these laws work in correlation. And when we see vaso-motor effects manifested in the motor area of the brain, and coincidently with these the psychical phenomena just mentioned, it would be unscientific not to recognise a similar condition, as the exciting cause of these emotions, obtaining in a non-motor cerebral area.

Differing in degree, rather than in kind, hypochondriasis stands out for both sexes, and especially for our own, as a term that includes self-concentration, irritability, suspicion, melancholy, and various physical phenomena. All honour to the old Greek physicians who associated as cause and effect morbid action of the liver with depression of spirits. The blood may thus, in an impure state, affect every vaso-motor centre in the brain or elsewhere; or some chronic form of indigestion will give rise to a morbid impulse, often reflected to the inferior cervical ganglion, and so through the cardiac nerves to the heart, or to the upper and middle cervical ganglia, and from them to the cerebral circulation, but most frequently to the thoracic ganglia, and from them along the splanchnic nerves to some other portion of the solar plexus, leading to distension of the colon, to borborygmus, to constipation, or diarrhœa. In each case the influence is reflex; but the reflex arcs may be somewhat complicated, or at least multiple. The starting-point is by no means always the liver. Cancer in any portion of the frame, especially of the peritoneum or of the abdominal viscera, seems frequently to be the exciting cause. The various phenomena associated with the sympathetic chain will readily be recognised by all practitioners, as the symptoms most usually complained of by sufferers from hypochondriasis—tinnitus, vertigo, confusion in the head, faintness, palpitation, a sense of impending dissolution, dyspepsia, constipation, meteorismus, with various mental delusions and extreme depression, irritability, or torpor of mind—are common enough.

Abnormalities of taste and smell, hallucinations of hearing, the falsity of which may or may not be recognised, anæsthesiæ, hyperæsthesiæ, paræsthesiæ, to say nothing of the numerous sensations connected with the spermatic and hypogastric plexus, must all be explained by reflex irritations of a similar kind. Perhaps the main difference between these reflex arcs, and those in which the centre is wholly cerebro-spinal, lies in the fact that one afferent irritation in the domain of the sympathetic is enough to set in action many efferent results. It may be so slight that it is carried to the first ganglion in its neighbourhood, and be reflected back either to the seat of irritation, or to some spot in its immediate vicinity. It is almost certain, indeed, that this effect is invariably produced on the vaso-motor nerves of the part first affected. But in many cases of hysteria and hypochondriasis the irritation does much more: it may affect all the ganglia above mentioned in the way described; it may miss the upper, and concentrate its action on the middle, or more specially on the inferior cervical; or the efferent effect may act only on the splanchnic nerves, or, without touching them, on the semilunar ganglia or on some one or more of the plexuses connected with them. But in these morbid states, as in some others, the most common reflex arc seems to be made of irritation starting from the solar plexus, running up to the inferior and middle cervical ganglia, or even higher, causing a reflex paralysis of the middle and inferior cardiac nerves, and permitting therefore the inhibitory action of the vagus to act uncontrolled by these nerves and to diminish the action of the heart.

The reflex action of such conditions is illustrated by Dr. Wilks's cases of sympathetic mania from the presence of a tumour in the abdomen, from adherent omentum, from unilateral hernia, from misplacement of the colon, and from cæcal abscess.

Of other forms of neurasthenia the description would be almost the same. In several cases, in my own practice, there has been a peculiar subjective sensation all down the spinal cord, never amounting to pain or paralysis, but causing a restlessness combined with a lack of energy that is very distressing to witness. Calabar-bean has at times served to promote recovery.

The nervous terror of such patients is a marked feature; terror of horses, of crossings, of fire, of water, sometimes associated with that shrinking from meeting other people that is seen in other nervous complaints. The causation of these symptoms is, in a word, starvation of the nervous centres, either by calling too much on them in the way of work, of anxiety, of sexual indulgence, of fatigue of any kind, or by absolutely starving these centres of the fatty material requisite. The mechanism is by way of the vaso-motors, as is shown by the remedial agents by which such patients are benefited, as well as by the nature of the phenomena themselves.

This reflex mode of action can scarcely be left out in the consideration of any one point in which the sympathetic is involved. By no means is it least in the great questions of inflammation.

From the masterly Lectures on Inflammation delivered here last spring by Dr. Burdon-Sanderson, one may gather certain dicta, which amount almost to axioms.

1. The statement of Lister, that stasis is not due to alterations of the circulating blood, but to a change in the channels through which it has to pass.

2. The temperature of an inflamed part never exceeds that of the rectum.

3. Cohnheim has shown that the increased temperature of external organs, when inflamed, depends on the activity of the circulation.

4. Determination of blood is a frequent precursor of inflammation, but it is not a part of it.

5. Reflex congestion produced by stimulation of sensory nerves is not the same as inflammation.

It has been known, since Claude Bernard's experiments, that division of nerves belonging to the system of organic life gives rise to three great classes of phenomena—acceleration of the passage of blood through the vessels, increase of temperature, exaggerated activity of the secretions.

The physiological history of inflammation is briefly this:—

1. Some source of irritation—cold, a blow, a burn, a septic focus.

2. The centripetal nerves, whether sensory or not, which are within reach of this irritation are excited more or less violently.

3. These nerves transmit to the vaso-motor centres of the region the excitation which they have undergone.

4. The tonic activity of these centres is disturbed, and suspended more or less completely.

5. Hence follows cessation or diminution of the tone of the vessels that are subordinate to these centres.

6. Consequently, more or less considerable dilatation of these vessels occurs.

7. But this vaso-motor disturbance can only be considered as favouring the development of inflammation. It is only secondary in importance, and does not suffice of itself to make up the phenomenon that we call inflammation. It places the vessels in a condition for easily and necessarily receiving more blood; it induces stasis of circulation, and offers facilities for the emigration of leucocytes; but the initial phenomena of inflammation consist in the disturbance of the intimate nutrition produced in the organised living tissue. The vitality of the cell having been gradually lowered by the previous state of its nutrition, it is thereby placed in a condition of vulnerability, and is ready at any moment to respond to morbid impressions. These may be reflex, as the impress of cold, causing pneumonia, it may be; or direct, as from the presence of morbid germs in the blood. And the vaso-motor action of the vessels, which without this previous alteration of the cell nutrition would stop short at non-inflammatory congestion, is of enormous importance in determining the various stages and symptoms of the progress of inflammation, although independent and unconnected directly with the initial phenomenon.

Some of the capillaries are blocked early by thrombi, others that are permeable are dilated; and the course of the blood, instead of being continuous, as in the normal state, becomes jerky, as in the arteries; and thence is carried, partly at least, the sensation of pulsation experienced in an inflamed region under certain circumstances.

As to the mechanism by which the vaso-motor centres of the bulbo-spinal axis, or at least of the vaso-motor ganglia, induce, under the influence of the irritation transmitted to them, a dilatation of vessels in the inflamed region, it probably consists in a suspension of the tonic activity of these centres. At any rate, a reflex irritation of vaso-dilator nerves is in most cases difficult of proof.

This theory of inflammation is practically a mere statement, in other words, of the dictum of Vulpian, that, in pneumonia, besides the mechanism of the cold impressions influencing in a reflex way the nutrition of the lungs through the nervous centres, there is need to admit, first, a general predisposition to inflammation; and, secondly, a local predisposition, which renders the respiratory organs more sensitive to the reflex action of cold than other parts of the body.

But although vaso-meter paresis has little or nothing to do

directly with the initial phenomena of inflammation, there are numerous instances of indirect action. Why do we look with grave suspicion on pulmonary congestion, or a similar condition in any other portion of the system? Is it not that a region so affected is peculiarly liable to take on active mischief? that is, a part that for a time has been affected only by means of partial paralysis of the vaso-motors, can very readily be found to be the seat of inflammation. It was this prominent fact that probably misled observers as to the *rôle* of the vaso-motors in inflammation. Congestion so often passes into inflammation, that the former was supposed to be the cause of the latter. But the explanation of the connexion is that given above. A congested part becomes gradually of necessity a part in which nutrition is badly performed. The affected spot becoming less and less perfectly nourished, is *ipso facto* more or less vulnerable to influences external to itself; in other words, it is predisposed to inflammation. The external influence arrives; modifies directly or reflexly still further the nutrition of a part already vulnerable, already possessing unstable cells; and the predisposition, the external influence, the modification of nutrition by the exciting cause, and the vaso-motor paresis, make up the necessary factors in the causation of inflammation.

This slow predisposing influence of congestion is markedly increased if it result in œdema. The vaso-motor nerves are implicated in causing œdema in more ways than one. Paralysis of vaso-motors dilates the arteries, and fills them with blood. The capillaries become abnormally distended, passively dilated, and, in the case of any hindrance to the nervous circulation, œdema results. Or œdema may be reflex, following a dilatation of vessels due to reflex sensory irritation. The capillaries may remain patent, or be thrombotic; and we have traumatic irritation of centripetal nervous fibres, suspension of tonic activity of certain vaso-motor centres, paralytic dilatation of the muscular tissue of the vessels, diminished *vis a tergo* in the veins, and so œdema. Or, again, reflex paralysis of vessels, with enfeebled *vis a tergo*, gives rise to a relative intravenous stasis, an increased pressure on the capillaries, and issue of liquid from the vessels. From whatever cause, the waterlogging of a tissue by œdema must necessarily interfere with its nutrition.

This part of our subject can scarcely be left without a few more words on congestion. M. Notta observed conjunctival redness in thirty-four of sixty-one cases of neuralgia of the fifth nerve. This congestion may extend over half the face, and even inside the mouth. It may be explained by the hypothesis of vaso-dilators; but, as this cannot be universally proved, it is enough to say that the transmission of the excitation along the sensory centripetal nerves to the vaso-motor centres of the regions where these nerves are distributed, may suspend the tonic activity of these centres, so as to cause a paralysis of the vessels of the corresponding regions. A similar reflex congestion may be occasionally seen in connexion with neuralgia of other nerves.

The congestion of the second stage of ague owns a somewhat different causation. It is due to a dilatation of the vessels of the integument, that depends on a certain degree of vaso-motor paralysis, succeeding the stage of excitation of the cutaneous nerves in the first stage. This is not owing merely to fatigue of the nerves, as the dilatation is in no proportion to the duration or intensity of the cold stage, but to a special modification of the vaso-motor apparatus, produced directly or indirectly by the morbific agent. Fatigue of nerves may in many cases add to this. Vulpian, whose views on congestion I have followed pretty closely, attempts to explain the specific congestion of the exanthemata in a similar way, as a dilatation of the sub-epidermic vessels; and he says that, in measles, the eruption seems to show that the vaso-dilator cause acts on sets of neuro-vascular territories, distinct one from another; and that congestion of the internal viscera, the lungs for instance, in typhoid fever, is due to a functional modification of the vaso-motors of the lungs, similar to that of the vaso-motors of the skin; whilst, although the fulness of the spleen seems to depend on a proliferation of the cellular elements in that organ, yet its rapid variation in size in ague and in typhoid fever must be induced by successive weakness and activity of the vaso-motor apparatus of this organ.

Nor can I forbear mentioning the congestion of the cheeks in pneumonia from reflex dilatation of the vessels of the cheek, unilateral pneumonia often being associated with unilateral congestion of the cheek; or the occasional phenomenon, in inflammatory disease of the lungs, of the arm of the affected side being hotter than the other, probably from reflex irritation carried to the bulbo-spinal axis and reflected along the brachial plexus, and the vaso-motors included in it. Of the same order is the congestion of internal organs, notably of the intestinal mucous membrane, following burns on the surface of the body. Ulceration of the duodenum is not unfrequently met with as a sequence of such burns, and the mechanism is centripetal irritation from the skin to the spinal cord reflected down to the semilunar ganglia, and the subordinate vaso-motor nerves to the intestine.

In diseases accompanied by pyrexia there is no necessary connexion between the state of the cutaneous vessels and the sweat-glands. In the third state of ague the vessels seem in the same state as in the second, and yet sweating occurs. Probably, in the normal state, fibres from the sympathetic exercise a moderating action on the secreting work of the sweat-glands; when these fibres are paralysed, then hyperidrosis occurs.

Paralysis of the vaso-motor centre in the medulla oblongata by injury causes decreased production of heat, and probably always increased dissipation of heat, depending on the fact that the medullary centre dominates the vessels all over the body, and that general dilatation of all the vessels produces a sluggishness in the movements of the blood in all parts of the body. Increased heat of blood cannot, therefore, depend on this general paresis of all the vaso-motors, but must be due to affection of the controlling inhibitory heat centre or centres, that have been found by experiment to lie above the medulla oblongata.

What is known about the influence of the sympathetic on sweating has been mainly observed in cases of unilateral hyperidrosis. Eulenburg and Guttmann have remarked that after section of the cervical sympathetic—in one case in the left sympathetic—there were very varicose and dilated vessels, which perhaps, when full, pressed on some of the sympathetic nerve elements, and so paralysed them. Also that, by galvanisation of the cervical sympathetic, the secretion of perspiration in the arm is increased. They think that this is due to currents entering the brachial plexus or the spinal cord, and has nothing to do with the sympathetic proper.

Unilateral ephidrosis is sometimes seen in exophthalmic goitre. Schwabach records a case in which pressure on the cervical sympathetic was associated with heat and redness of the right side of the face, and unilateral sweating on the least exertion. In Seguin's case there was normal perspiration on the left side of the face, whilst the right side was absolutely dry, and here the right sympathetic was adherent to the sheath of the vessels. In Ebstein's case of unilateral sweating there were very dilated and varicose vessels in the ganglia of the affected side.

In Seeligmüller's case of a woman who had had right ephidrosis during the whole of life, and in whom all the symptoms of paralysis of the right cervical sympathetic were manifested, there was found, after death, sclerosis and fatty degeneration of the right cervical sympathetic.

We find that sweating follows paralysis of the sympathetic, whilst vaso-motor paralysis, sufficient to cause extreme dilatation of vessels, is not necessarily associated with sweating. It is certain, therefore, that one of the functions of the sympathetic is that of inhibiting over-action in the sweat glands, of maintaining tone in these organs, and that hyperidrosis depends, not on the vaso-motor nerves, but on secreting fibres emanating from the cord through the rami communicantes to the sympathetic ganglia.

Seeligmüller asserts that the position of the sweat centre is doubtful. It resides possibly in the spinal cord, possibly in the upper surface of the brain. That the irritation that excites hyperidrosis may be reflex, is seen in those cases of extreme perspiration of the palms of the hands induced by indigestion; and instances of perspiring feet, not only hyperidrosis, but osmidrosis, are not wanting, in which the exciting cause is to be sought in abdominal and pelvic irritation.

Vaso-motor paralysis is not necessarily accompanied by the secretion of sweat, but the reverse statement does not hold good. The secretion of sweat is accompanied by vaso-motor

paresis, and it there be a paralysis of the vaso-motor centres that preside over the vascular tone of the sweat-glands, hæmatidrosis—bloody sweat—may result. And, in spite of cases of simulation and of red fungus, it is certain that such bloody sweat is met with, depending on paralysis of the sympathetic fibres inhibiting the action of the sweat-glands, *plus* an intense vaso-motor paralysis of the vessels of these organs, and such a consequent congestion as may lead to rupture of vessel.

The influence of the sympathetic on the nutrition of a part, and on its circulation, render it, to say the least, one of the chief factors in inflammatory disease of every organ of the body. The vaso-motor supply of the cerebral and meningeal vessels brings the brain and its membranes into close relationship with the cervical ganglia. Take general paralysis of the insane. The lesions found post-mortem are many and various, but in all cases there may be found cerebro-meningeal hyperæmia, that has often proceeded to emigration of leucocytes, distension of vessels, impediments (chiefly thrombotic) to the circulation, irritative overgrowths of the connective nuclei of the walls of the vessels, and probably also of the neuroglia. This is only a somewhat more modern expression of Calmeil's dictum, that the pathological lesion is chronic inflammation of the brain, especially of the superficial part of the convolutions, the grey substance, and the meninges. In addition to the *délire ambitieux*, which is sometimes wanting, and which, occurring in a few other morbid states of the brain, cannot be considered pathognomonic of general paralysis, early inequality of the pupils, a sense of fatigue that yet does not overcome the tendency to wakefulness, irritability of temper, slight paralytic phenomena of speech, of prehension, and of locomotion, with great facility in the formation of bedsores, would be some of the more remarkable symptoms of this condition. Not only does the inflammatory character of the disease connect it with the sympathetic, not only can the intermission of the morbid phenomena be explained in no other way, but the inequality of the pupils has been thought by some to point to the same fact. My friend Dr. Thompson, of the Bristol County Lunatic Asylum, justly says, however, that the asymmetry of the pupils is due to the want of symmetry in the rate of progress of the cerebral lesion.

Myosis is a symptom that so often occurs in disease, apt, as it is, not only to assist a diagnosis, but frequently to increase the gravity of the prognosis, that it may be advisable to devote a few words to it. Contraction of pupil is seen to follow compression of the cervical sympathetic by tumour to the extent of paralysing the sympathetic branches. In a recent case of some obscurity, the diagnosis of aneurism was rendered certain by the unilateral myosis. This symptom is seen in lesions of the pons Varolii, in sclerosis of the medulla oblongata, in disease of the cervical cord, especially in tabes cervicalis, and sometimes in progressive muscular atrophy. It is found in traumatic paralysis of the brachial plexus from simultaneous paralysis of the cervical sympathetic, the vaso-motor fibres being unaffected.

With the exception of one or two ciliary nerves of separate origin, all the branches destined for the iris and ciliary muscle proceed from the ciliary ganglion. What influence is exercised on the ganglion by each of the three nerves by which it is supplied?

1. The oculo-motor has undoubted action on the sphincter of the pupil. The pupil becomes dilated and immovable in paralysis of this nerve. This nerve is the condition, *sine qua non*, both for reflex and accommodative movement of the pupil.

2. The filaments of the sympathetic acting on the pupil arise from the spinal cord, and pass into the anterior roots of the two lower cervical and six upper dorsal nerves. There is slight contraction of pupil on section of this nerve, and gradual dilatation on irritation of it in the neck. After division of the sympathetic in the neck, the upper part passes into fatty degeneration. The action of the sympathetic root consists in a persistent exaltation of tone of the radiating fibres. It is not proved that it acts on the accommodation. Irritation of the sympathetic in the neck causes contraction of the vessels of the iris. Dilatation of the pupil from irritation of the sympathetic nerves is not due to contraction of vessels (the diminution of blood in the iris lessening contraction of the sphincter muscle), but depends on contraction of the radiating fibres of the iris.

3. The influence of the fifth nerve is doubtful, but it is probably sensory. As a motor influence it may act on the ciliary ganglion, either to increase the action of the fibres of the oculo-motor, or to diminish that of the sympathetic.

If these views be correct—and they are those of Donders—the position of the sympathetic in the causation of myosis is not a very important one. Certainly, in general paralysis of the insane, where the lesions are largely intracranial, the myosis is due to irritation of the oculo-motor nerve rather than to the paralysis of the sympathetic; and if, in addition to this state of the third nerve, there be irritation of the fifth also, the effect of the sympathetic would be rendered *nil*. The influence of the sympathetic on the pupil can only be seen when neither of the other nerves supplying the ciliary ganglion are irritated or paralysed. The intermissions of general paralysis depend on the greater or less congestion of the brain or it membranes. Vulpian, indeed, goes further, and suggests that many of the so-called apoplectic attacks in this disease are not due to over-distension of the vessels, but to anæmia of parts of the brain, such anæmia being the result of reflex vaso-constrictor phenomena. The foci of white softening sometimes found in general paralysis may have this origin, but far more frequently is it the sequence of thrombotic blocking of minute arteries.

A similar reflex constriction of vessels may occur in tuberculous meningitis, or in tubercle of the brain, from the irritation of the foreign growth; but this theory is unnecessary, as the interference with the calibre of the vessels is fully accounted for by the early growth of tubercle on their adventitia.

Nor can more than the ordinary vaso-motor influence be traced in most of the other morbid conditions to which the cerebro-spinal nervous system is liable. In meningitis, in mania and melancholia (except that these latter may show remissions), in hæmorrhage, in softening, in sclerosis of the brain and cord, in inflammation of the cells of the anterior horns, or in atrophy of the same, the sympathetic has not much to do directly. In one disease just mentioned—progressive muscular atrophy—the fact that the lesion is due to a malnutrition of cells of the anterior cornua, induced by a condition of the nutritive vessels rendered morbid by an abnormal state of the vaso-motor nerves, is probable, but certainly has never been demonstrated. It is, however, only fair to say that Sir Charles Bell thought the sympathetic was concerned in this disease, and that Jaccoud shares his views, and that, besides the lesions of the anterior horns, the cervical ganglia of the sympathetic have been found converted into fat, whilst the raised temperature in the early stages diminished later; the increased perspiration, the atrophy of the layers of skin, the painful swelling of joints, and sometimes the contraction of one pupil, all point to some sympathetic connexion. In pseudo-hypertrophic paralysis, one case has been attributed to paralysis of the sympathetic; but from the study of the physiology of the sympathetic, the course of the disease, the post-mortem appearances, and the sufficiency of other explanations for the lesions, the conclusion is almost necessary that the sympathetic has little or nothing to do with this disease. It is quite another question whether progressive muscular atrophy has not some influence on the sympathetic. Myosis in this disease is rare, but when it exists it may depend in some sort on the cutting off more or less of the influence of this nerve from the ciliary ganglia, so that its inhibitory effect on the contraction of the pupil being removed, the oculo-motor acts with great intensity. But this and all other sympathetic phenomena in progressive muscular atrophy seem to be secondary in point of time to the disease itself.

In sunstroke, the primary condition is twofold—paralysis of the inhibitory heat-centre, and paresis of the chief vaso-motor centre on the medulla oblongata. The loss of tone in the capillaries and small arteries, and the consequent congestion, is especially seen in the lungs, and forms an important element as to the peril of the patient. Hæmorrhages have been found in the ganglion cervicale supremum.

In epilepsy, there is much to be said about vaso-motor influence, although the opposite view has been taken by distinguished Fellows of this College. Meynert believes that in epilepsy the hippocampus major is a vaso-motor centre, irritation of which causes spasm of vessels, and so epileptic convulsions. Nothnagel considers vascular cramp an essen-

tial factor in all epileptic seizures. Binswanger says that, in a typical fit, excitement of the convulsive centre and of the vaso-motor centre are co-ordinated. If the excitement of the vaso-motor centre exist alone, there is *le petit mal*. If excitement of the convulsive centre exist alone, we have those rare cases of motor epilepsy, convulsion without loss of consciousness. Most frequently both centres are excited together.

The influence of emotion, especially the terror at the sight of another person in an epileptic fit, seems so prominent in this disease, that this alone points to a vaso-motor basis.

Dr. Gowers, however, states his case clearly enough. The three views most in vogue are these—

1. Epilepsy is simply a disease of the vaso-motor centre in the medulla oblongata, setting up vaso-motor spasm affecting particular arteries, and thus causing local cerebral anæmia, which induces the discharge from the hemispheres. This theory is held by few.

2. Convulsion depends on discharge of motor or convulsive centres in the medulla oblongata; while loss of consciousness is the result of arterial spasm in the hemispheres, due to the action of the vaso-motor centres in the medulla.

3. The view of Dr. Hughlings-Jackson, that the local discharge in the brain excites at the spot arterial contraction, and this determines the spread of the discharge.

To this Dr. Gowers objects, that pallor of the face is often absent; that, when present, it is no proof of anæmia of the brain, but is probably due to a reflex contraction of peripheral vessels, excited by the discharge in the brain; and that convulsion is not usual in cardiac syncope; that this third view is not needed, and is opposed to the fact, proved by experiment, that functional debility causes reflex dilatation, and not contraction, of vessels.

He would say that the phenomena of epilepsy depend on instability of resistance, rather than on any primary change in the energy-producing action of the cells. It seems open to question whether this somewhat negative theory suffices to explain all the various forms of epilepsy; whether, particularly, it demonstrates the mechanism of *le petit mal*. On the other hand, Echeverria has recorded twenty-six cases of epilepsy, in almost all of which there was found sclerosis or fatty degeneration, or amyloid degeneration, or pigmental infiltration of the cervical sympathetic, and often two or more of these changes united; sometimes also a similar condition of the solar and other abdominal plexuses.

Again, although the extraordinarily high temperature in the *status epilepticus* is not a proof of the implication of the sympathetic, and may be caused merely by paralysis of the inhibitory heat-centre in the brain, yet this great heat can hardly arise without some vaso-motor change, even if this very paralysis of heat-inhibition be not caused by anæmia of the centre from reflex contraction of its vessels.

The numerous instances of true epilepsy, caused by reflex irritation from distant organs travelling upward by way of the sympathetic, are not wholly explicable by the theory of instability of cells. The epileptic condition, consequent on irritation of the uterus and its appendages; the gastric epilepsy in men of which Pomeroy speaks as answering to uterine epilepsy in women, are only some of the examples of this reflex condition.

The difficulties are the greater, inasmuch as all theories must be more or less hypothetical. It seems likely that the convulsive centre in the medulla is a minute corpus striatum for collecting, modifying, radiating convulsive motor phenomena from the cerebral motor area; that epilepsy with convulsion may depend upon direct or reflex irritation of this centre, but far more frequently on some condition of cells in the cerebral motor area, that may well be termed instability; that these lesions and their consequent phenomena may be wholly independent of vaso-motor disturbance; but that loss of consciousness, occurring either as an early symptom of the convulsive form of epilepsy, or as an independent phenomenon in *le petit mal*, owns as its cause anæmia of the non-motor area of the brain; an anæmia depending on vaso-motor irritation. Brown-Séquard's experiment, showing that compression of the cervical sympathetic was a valuable means against *le petit mal*, points to the truth of this latter proposition.

The whole question of optical delusion is more or less under the influence of vaso-motor action. In health, the impression of an external object is carried to the retina, and thence to the corpora quadrigemina. Thence it is transmitted to the angular gyrus as a sensory centre, and reflected on to the anterior lobes for perception. But in certain variations of the vascular tone of the vessels of the angular gyrus this centre seems to have the power of evolving optical delusions, wholly irrespective of externa impressions. Many of the phenomena of febrile delirium, of delirium tremens, and of mania are produced by vascular congestion, or by anæmia, of the angular gyrus. Probably, too, the false sensations of optical impressions depend on a similar congestive condition of the gyrus, including many of the varieties of hallucination and illusion.

Does the study of hemicrania show definite abnormality of the sympathetic? The peculiarity of pain referred to only one side of the head is associated with very opposite vascular conditions.

1. In tonic or spastic hemicrania, the prevailing phenomenon is tetanus of the muscular coat of the arteries on the affected side of the head in the region supplied from the cervical portion of the sympathetic nerve. That this is the condition of the vessels is shown by the hard, cord-like temporal artery, the pale and sunken face, the small eye, the diminished temperature. The pupil is dilated during the height of the attack, from increase in the tonic excitation of the dilator fibres, which arise from the cilio-spinal centre, and follow the course of the cervical sympathetic. The extreme action of these fibres overcomes abnormally the contracting power on the iris of the oculo-motor nerve. The subsequent contraction depends on a secondary diminution in innervation, akin to fatigue, corresponding to the condition of the vaso-motor fibres. Thus too, towards the end of the attack, the ear becomes red and warm, and the conjunctiva, from relaxation of its vessels following the tonic spasm, becomes injected. Increase of saliva, with a certain tenacity of this secretion, is met with in this form. Eulenburg and Guttmann consider that the pain is caused by tonic spasm of the unstriped muscles of the vessels (as in cramp and colic), that is, from pressure on nerves of sensation distributed within the muscular tissue. But it is not quite certain which branches of the fifth nerve are affected by the pain. Some localise the pain in the frontal branches, but it is more probable that the branches implicated are those which supply the dura mater, coming from all three divisions of the fifth nerve.

2. The other form, hemicrania neuro- or angio-paralytica, is characterised by relaxation of vessels, arterial hyperæmia, and increase of temperature on the affected side. The state of this side of the head and face is not unlike that of an animal in which the cervical sympathetic has been cut. But the explanation of the pain in this variety is not straightforward. It is said to be due to irritation or compression of the nerve elements by the temporary increase of the blood-pressure, and the greater quantity of blood in the small arteries and veins. But pain is not usually felt from congestion, at least pain of the acute intensity of hemicrania. And although in the later stages of the spastic form, when the vascular spasm gives place to dilatation, the paretic congestiveness does not perhaps equal the marked hyperæmia of hemicrania angio-paralytica, yet it is remarkable that in these latter stages of the spastic form the pain diminishes *pari passu* with the spasm, whilst, in fact, the vessels are getting more or less into the same condition that is said to cause the pain in the paralytic form. The symptoms, however, of each form of this affection, especially the oculo-pupillary phenomena, point to the cervical sympathetic, or to the corresponding half of the cilio-spinal region of the cord, as the part specially implicated. And the success of caffeine, quinine, guarana, and ergot in the paralytic variety, and of nitrite of amyl, carbonic acid inhalation, hot drinks, etc., in the spastic, points to the same conclusion.

The frequent occurrence of nausea, vomiting, muscæ, tinnitus, and foul taste, are all points directly or indirectly associated with the sympathetic; and no only is tenderness met with on pressure over the last cervical and fourth dorsal vertebræ, but deep pressure over the cervical ganglia excites pain. Dr. Latham's dictum is good for the spastic form, that the disease is characterised by a morbid activity of the sympathetic nerve, in consequence of a defective control or inhibition by an exhausted or enfeebled cerebro-spinal system. In hemicrania alternans, where the patient is affected sometimes by one form, sometimes by the other, the

law of paretic fatigue following inordinate action may afford the explanation of the paralytic form. In other cases, this paralytic form must owe its causation to depressing influences affecting the whole system, and especially the nervous centres, such influences being particularly those of climate, of mental strain, or of venereal excess.

Proceeding in the region of the cervical sympathetic, exophthalmic goitre comes next in order. Certain coarse lesions have been found in the cervical sympathetic with this group of symptoms. Eulenburg and Guttmann have collected nine such cases. The inferior ganglion is most frequently affected. In Dr. Warner's case there were lesions of the sympathetic on one side of the head. The right side of the face was flushed up to the middle line, the right pupil dilated, the right iris much darker in colour of late years than the left, the thyroid normal. In a case quoted by Woods the lower cervical ganglia, especially the right, were thicker and redder than normal; there was increase of connective tissue, growth of nuclei and of spindle-shaped cells: ganglion cells were few. In Dr. Shingleton Smith's case there was marked shrinking of the cells of the inferior cervical ganglia. In one case, mentioned at the Congress by Dr. Guéneau de Mussy, there was decided pigmentation of the face, due to defect of innervation caused by the enlargement of thoracic glands about the bronchi and trachea, in the immediate vicinity of the vagus, giving rise to irritation of the vagus.

Seeligmüller mentions a smith in whom, eight days after a severe blow above the clavicle, dilatation of the pupil and of the palpebral chink, exophthalmos, pallor, diminution of temperature, and flattening of the left cheek occurred, depending on clonic narrowing of the arteries. Other observers have noticed induration and hypertrophy of connective tissue, chiefly of the lower cervical ganglia, with pigmentation of cells. Perhaps the most consistent view has been expressed by Professor Möbius, when he says that exophthalmic goitre is not an independent disease, but is a group of symptoms, partly depending on local lesions of the medulla oblongata, or the cervical cord, or the sympathetic, but partly occurring more or less in the course of severe neuroses, such as hysteria and the various psychoses. But whilst some of the phenomena point to lesion, direct or reflex, of the sympathetic, it is not possible to credit this system of nerves with the causation of all the symptoms.

The exophthalmos itself could only be associated with the sympathetic by means of a persistent tetanic contraction in the unstriped ocular muscles, and for this there is little physiological analogy. This protrusion of the eyeballs seems to depend on deposit of fat behind the eyeball, and on venous hyperæmia, even if some spasm of the unstriped orbital muscles co-operate in its production.

One symptom connected with the eye, first noticed by von Graefe, is due to disturbed innervation of Müller's unstriped orbital muscles: an immobility of the upper lid, which no longer follows the movements of the eyeball, as in health. This interference with the consensus of the movements of the lid with that of the globe, especially when the latter is directed downwards, may precede the exophthalmos, and is not seen in protrusion of the eyeball from mechanical causes.

The two chief sympathetic symptoms, then, are the goitre and the accelerated action of the heart; and both these phenomena are connected with paresis of the sympathetic rather than with irritation. The goitre seems wholly caused by enlargement and dilatation of vessels in the thyroid. The arteries are tortuous and pulsating, and the veins engorged. The temperature of the part is somewhat higher than of other parts of the body. It is true that division of the cervical sympathetic is not followed by this swelling of the gland, but in exophthalmic goitre we have not only conditions answering to division of the sympathetic in the neck, but extreme acceleration of the heart's action as well.

The palpitation is more difficult of explanation. If it be due to irritation of the sympathetic, the irritation must be persistent, which is contrary to physiological experience. If due to paralysis, the usual effect would be syncope, because, the influence of the cardiac nerves being cut off, the inhibitory action of the vagus would suffice to antagonise the automatic energy of the cardiac ganglia. Eulenburg and Guttmann seek to explain it by allowing a paralysis of the cervical sympathetic, the first effect of which will be a vaso-motor dilatation of the cardiac vessels (the coronary arteries); and this dilatation, by permitting a greater flow of blood to the muscular tissue of the heart, stimulates the cardiac ganglia to abnormal activity. It seems strange, however, that a similar result does not always ensue when the action of the cardiac nerves is cut off. What need, indeed, is there, under this theory, that syncope should ever take place? Dr. Handfield Jones, however, believes that the palpitation in exophthalmic goitre is due to paralysis of the vagus. The implication of the sympathetic is shown by the perspiration and diarrhœa so common in exophthalmic goitre, as well as in the occurrence of pigmentary disturbances, instances of which have been already given. Trousseau has seen vitiligo in connexion with it, and Leube scleroderma.

The drawing now shown, by the kind permission of Dr. Burney Yeo, is that of a case in which, with profuse perspiration, and constantly recurring diarrhœa, the exophthalmos implicated the left eye only, whilst the right side of the thyroid was enlarged. This crossing of the symptoms seems to Dr. Yeo to prove the central origin of the lesion. But there is nothing improbable in a lesion of the inferior cervical ganglion of one side co-existing with lesion of the superior cervical ganglion of the other; nor, indeed, in an affection of the cilio-spinal centre on one side coinciding with that of the spinal vaso-motor centre on the other.

Nor is the subject of progressive hemiatrophia facialis less wanting in elements of controversy. Pierson speaks of the sympathetic being affected, as evidenced by the prominence of the eyeball and dilatation of the palpebral fissure, diminution of temperature in the auditory meatus of the affected side, and atrophy of the affected ear. Most authors mention some change of colour in the skin, pale or brown patches on the face or on the neck, sometimes preceded by an eruption of an œdematous or herpetic character.

Neither paralysis nor irritation of vaso-motor nerves experimentally gives rise to simple progressive atrophy of all or most of the tissues. Romberg considers the disease a tropho-neurosis. Baerwinkel places its seat in the ganglia of the trigeminus. Stirling thinks it is due to disturbed function of vaso-motor nerves included in the trigeminus, and destined for the vessels of the head. Eulenburg and Guttmann speak of slight atrophy of one side of the face, as observed in some cases of injury of the sympathetic in the neck; and they quote Brunner's case, in which more or less of the phenomenon of progressive facial hemiatrophy seemed to depend on persistent irritation of the cervical sympathetic. Dreschfeld agrees with Romberg. In his case the vessels were not affected; but this is not always found. Sometimes there are distinct changes in the vascular tone, not necessarily connected with the atrophy; the power to blush may be lost, and may be restored without any other improvement. Dr. Dreschfeld considers that in his case the atrophy was not due to any affection of the facial sympathetic, or of the motor or sensory portions of the fifth nerve, but that it is a tropho-neurosis following the course of the fifth nerve.

Another theory, that of Laude, denies the disease to be a neurosis at all, but a primary atrophy of the fatty tissues, the elastic tissue remaining unaffected, its retraction causing the falling in of the other soft parts and the contraction of the capillaries, the latter leading to further disturbance of nutrition. Virchow says the exact seat of the disturbance lies within the domain of the peripheral nerves; that is, a primary inflammatory lesion of the throat and face escapes on to the nerves, and so to the ganglia.

That the symptoms are due to a neurosis is demonstrated by their association with headache, with paralysis, with irritation of the cervical sympathetic, or with epilepsy; neuro-paralytic ophthalmia, neuralgia, and anæsthesia of the fifth nerve often accompanying them. It may exist coincidently with migraine.

The muscles take no share in the atrophy. The subcutaneous fat, the proper tissue-elements of the cutis, and even the epidermoid structure, take no part in the disease. The secretion of the sebaceous follicles is arrested; that of the sweat-glands persists, but is frequently diminished. The bones of the face, and even the nasal cartilages, share in the atrophy, and sometimes the tongue, the vault of the palate, the soft palate, and the uvula. The eye, if affected at all, shows lesions associated with intracranial disturbance of the fifth nerve, which may end in destruction of the organ.

In the very few recorded cases of definite recognisable lesion of the cervical sympathetic in this disease, there has been absence of oculo-pupillary phenomena. It seems

certain, therefore, that all the branches of the nerve are not considerably implicated. Is not the connexion between the cervical sympathetic and the phenomena of this disease less absolutely direct? The lesion may be one of the fifth nerve, whether of its sensory and trophic branches, of its trophic and vaso-motor, or sometimes of its vaso-motor, trophic, and sensory, all together. In some instances it may be a direct disease—that is, from blood-changes, from a depressed condition of cerebral centre, from definite lesion of the nerve itself. But instability in the nerve or its ganglion being present, the phenomena may be set up from without; and here certain conditions affecting the cervical sympathetic may act in a reflex manner. No morbid state of the cervical sympathetic, moreover, could exist without some vaso-motor phenomena, some interference with the vascular tone of the facial vessels; and this would render the tropho-neurosis of the fifth more certain in its course. The position of the sympathetic is important, often almost all-important, but in most cases secondary, affording the centripetal irritation in a reflex are.

The objections to any theory are manifold: not only that the absence of post-mortem records leaves all theories unproven, but because the atrophic influence of this supposed morbid state of the fifth nerve is not in accordance with experiment.

The heart has been seen to have been affected in many of the diseases that have been considered. It is specially influenced by disease or disorder of the sympathetic. Palpitation, as we have seen in discussing Graves's disease, may be from irritation of the cardiac nerves, the inhibitory action of the vagus being unchanged, the palpitation being then intermittent and often associated with dilated pupil; or, the cardiac branches being normal, palpitation would result if the accessory branches of the vagus were paralysed, in which case the palpitation would be continuous. That either of these conditions may be induced by direct or reflex influence is only in accordance with ordinary experience.

The action of the heart would go on for a time by means of the cardiac ganglia alone if the influence both of the cardiac nerve and of the vagus were removed, but absolute palpitation would not ensue, unless the paralysis of the cardiac nerves had caused such dilatation of the coronary arteries as would increase considerably the amount of blood brought for the nutrition of the heart, and so stimulate exceedingly the cardiac ganglia. Palpitation from terror would be by means of paralysis of the cardiac branches of the vagus; palpitation from indigestion, or from a gouty condition of blood, would be by way of stimulation of the sympathetic cardiac nerves, or of the ganglia from which they proceed. The ganglia in the structure of the heart are the reflex centres through which the excitation of the blood reaches the muscular apparatus. In suspense, the action of the heart is short and sharp; in fear, almost paralysed; under excitement, usually intermittent.

The symptoms of angina pectoris are seen under very various pathological conditions. The most pathognomonic symptoms are substernal pain, the feeling of anxiety, the disturbance of the heart's action. The pain has its origin in the cardiac nerve-plexuses, and persists even if the vagus be divided; proving that the sympathetic cardiac nerves contain sensory fibres. The pain is looked upon as the most important phenomenon, and the group of symptoms stand out as neuralgia of the heart. But it is not always so. One meets with cases with a slow, feeble pulse, some faintness, a feeling of anxiety, and a sense of impending dissolution, without pain, or at least without pain for a long time. In such cases, if not cured (and being sometimes reflex, with the heart's structure healthy, they may be cured), the attacks become more frequent and intense, and sooner or later pain will be added. The communication between the cardiac plexus, and the anterior division of the four upper cervical and first dorsal nerves, explains the transmission of pain to the regions supplied by the cervical nerves. As the first dorsal nerve seems to form part of the lower end of the brachial plexus, and as there are freer anastomoses of nerves on the left side than on the right, the reason of the sense of pain down the left arm is apparent. This connexion of the brachial plexus with other nerves will bear further investigation. I have lately met with a case in which pressure on any part of the left brachial plexus, even grasping the upper part of the left arm, caused violent eructation. The woman was accustomed to grasp her upper arm for this purpose when she felt oppressed with flatulence.

The conditions under which angina pectoris occurs may be said to follow an anatomical distribution. According to circumstances the automatic ganglia of the heart may be irritated or paralysed; the inhibitory action of the vagus may be increased by irritation; the cardiac nerves may be paralysed; the vaso-motor nervous system may be so influenced as to induce change in the tone of the vessels, and consequent change of blood-pressure, and, as a writer in Ziemssen's "Medicine" says, with perhaps some affection of the depressor nerve of Ludwig.

The influence of this depressor nerve is felt in a large number of diseases. On section of this nerve, irritation of the peripheral end has no effect; but irritation of the central end causes pain, lowers the pressure of blood in the arteries, arrests the respiration, and retards the heart. As to the mechanism of the depression, it is a reflex action exercised on the splanchnic vaso-motor nerves, producing relaxation of the intestinal vessels; thereby a large way is opened to the passage of blood from the arteries into the veins, and pressure is lowered. It is not the activity of the splanchnic vaso-motor nerves, but the reflex suspension of their activity, that is obtained by the irritation of the depressor nerve.

The cardiac reflexes are met with frequently. When one excites a sensory nerve, or one of the posterior spinal roots, there is generally observed a passing lowering of pressure. Brusque percussion of the abdomen may arrest the heart's action. Simply touching the peritoneum will do this when it is inflamed by exposure to air. In many cases of peritonitis the reflex action on the circulation is remarkable. All nervous action which lessens the movement of the heart is transmitted to it by the vagus.

This is scarcely the place to pass in review the various forms of angina, except to say that in most the sympathetic is primarily or secondarily implicated. We all recognise that the pathological anatomy is very variable. Cardiac lesions may be present, sometimes of the cardiac ganglia themselves, hyperæmia, interstitial inflammation, hyperplasia of connective tissue, and fatty pigmental degeneration; in some cases, destruction of ganglion cells and caseous infiltration of connective tissue. Such lesions are only exceptionally seen in angina. These ganglia are more usually affected by any lesion that deprives them of their proper blood-supply, as narrowing of the coronary arteries from disease. This coronary lesion often exists without angina and angina without coronary lesion.

Pressure by diseased glands on the cardiacus magnus, and on a branch of the vagus, has been seen. Rokitansky saw the right phrenic and the cardiacus magnus involved in a dark blue hard knot, which also implicated the descending branch of the left vagus. Lancereaux has seen congestion and inflammation of the cardiac plexus, and Seligmüller hyperplasia of the connective-tissue elements in the same plexus.

Section of the great sympathetic dilates the vessels more than is normal; on the other hand, irritation of this nerve contracts the vessels almost to complete effacement of their calibre. It seems certain, therefore, that the physiological state of the vessels is that of mean contraction—in other words, vascular tone,—and the preservation of this tone is one of the chief offices of this system of nerves. Of the brain, the cord, the ganglionic plexus on the arterial wall, the sympathetic ganglia, a pathological standpoint enables us to choose the sympathetic ganglia as possessing a primary, if not wholly absolute, influence on vascular tone associated with the vaso-motor centres in the medulla oblongata and spinal cord.

The motor nerves that preside over muscular contraction, and rule the local circulation, are the nerves that issue from these ganglia of the great sympathetics, creep along on the arterial walls, and can be followed into the middle muscular coat of the arteries. The vaso-motor apparatus, therefore, is in a state of permanent activity, never in repose, never inert. The muscular tunic of the vessels is in a state of semi-contraction—in other words, of vascular tone. Variations in this tone will be the necessary sequence of various modifications of the nervous apparatus. This tone is modified, as Dr. Mahomed has said, by alterations in the vessels

themselves—atheroma, sclerosis, fatty, calcareous, and amyloid degeneration; senile changes, syphilis, scrofula, alcoholism, etc. There is at least some reason to believe that aneurism sometimes results from blood-changes that affect the vaso-motor nerves, the consequent loss of tone permitting the formation of aneurismal dilatations.

It is found by experiment that general loss of tone can only be obtained by complete destruction of the medulla oblongata and spinal cord; but partial lesions of the cord will enfeeble the vascular tone in the parts of the body which are, by their vaso-motor nerves, in relation with the region of the cord situated behind the seat of lesion. This state of tone is a reflex act. For a reflex movement, several factors are necessary—a contractile tissue, centripetal fibres, a centre of reflexion, and centrifugal motor fibres. In a vessel the factors of this are exist—the middle tunic of the vessel; the centrifugal vaso-motor fibres; the bulbo-spinal centre; and, in addition to it, the sympathetic ganglion, that may act, and probably does act, as an independent centre for reflexion; and, lastly, centripetal sympathetic fibres in the vascular walls, that are irritated or excited by the blood. Sensory nerves may often act as the centripetal fibres in these reflex actions.

All the phenomena of reflex congestion, and of reflex dilatation of the vessels, from any cause, are only instances of enfeeblement or abolition, more or less complete, more or less persistent, of the vascular tone. The only nerve that clearly determines a reflex vaso-dilator action on all the vessels of the body is the depressor nerve.

The reflex mechanism of vascular tone is seen better in the heart and arteries. Let there be, from any cause, a constriction of most of the small arteries of the body, there is, as a consequence, increase in the arterial tension. The heart strives to overcome this excess of tension, and must employ more energy for this purpose; its contractions become more vigorous, more rapid. This effect is not purely mechanical, but is under nervous influence. Under increased intra-arterial pressure, the blood in the ventricle also undergoes, at the moment of systole, and of the opening of the sigmoid valves, an excess of tension. This impresses some excitation at the endocardial extremities of the centripetal nerves of the heart—in this case the vagus. The impression is carried up to the bulb, from which and the cervical cord is reflected a centrifugal irritation by way of the sympathetic cervical cord and its ganglia, to the intra-cardiac ganglia; and so increased energy and increased rapidity of the movements of the heart. The inverse phenomenon—dilatation of vessels—induces inverse conditions; but the mechanism is nearly the same, except that the centrifugal nerve will be the spinal accessory.

Reversing the order of the phenomena, if the left ventricle from any cause be abnormally full of blood, the spinal impression on the peripheral extremities of the cardiac nerves is carried up by the depressor nerve to the bulb; and thence, by means of dilator nerves, a general reflex dilatation of vessels takes place, and especially by way of the splanchnic nerves on the vessels of the mesentery; and the heart is relieved of its pressure.

So, once again, if an abnormally small amount of blood be in the heart, the reflex action originates from the cardiac nerves, and will react on the vaso-constrictors; the vessels contract, and the blood, receiving an increased *vis a tergo*, flows more abundantly to the heart. Thus the heart may, up to a certain point, play the part of regulator of the vessels, or at least it exercises a certain influence on their tone; whilst inversely the vessels, too, rule, up to a certain point, the energy and frequency of the movements of the heart.

Nor is it necessary that the bulbo-spinal centre should always be the centre for these reflex arcs. The sympathetic cardiac ganglia, the ganglia of the cardiac plexuses, the ganglia in the walls themselves, may be the centres for these actions of the heart; whilst, for the vessels, the centres may be sought in the minute ganglia round the vessels themselves, and even in their walls.

The pressure of the blood within the arteries is the product of several factors: 1. The introduction of waves of blood into the aorta by the ventricular systole. 2. The resistance the blood meets with in its course through the small vessels. 3. The reaction of the elastic walls of the arteries on the blood contained in them. This latter factor is the most important one; and as the calibre of these vessels depends essentially on the degree of vaso-motor activity, this system plays no small part on the intra-arterial pressure.

It is scarcely necessary here to point out the manifold examples of the variation of arterial tension. In what disease, indeed, is it absent? In what morbid conditions, therefore, will not the sphygmograph be of importance in an early stage? But it may be permitted to quote Dr. Mahomed's account of the series of pathological events in so-called inflammatory Bright's disease:—1. A poisoned condition of blood by uric acid or other effete material, as in scarlatina, measles, erysipelas, pregnancy, or a severe chill; 2. Arrest of the action of one of the excreting organs; 3. Increase of tension in the arterial system; 4. Transudation of the crystalloids of the blood through the kidney; 5. Albuminuria, followed by dropsy and the usual symptoms of Bright's disease; 6. Changes in the kidney and other excretory organs, as in the intestinal tract and skin, produced by acute, and afterwards prolonged, congestion, and high arterial tension, viz., exudation and plugging of tubules or follicles, fatty degeneration and absorption, and, lastly, contraction. Probably it is in the pre-albuminuric stage of Bright's disease that the importance of the sphygmograph is most clearly seen.

There are certain vaso-motor neuroses of the extremities that have lately been described by various observers. In a less degree, we most of us meet with them from time to time, and recognise the condition as one of paresis, if not of paralysis, of the peripheral vaso-motors. It may be associated with heart-disease, as in the case mentioned by Dr. Semmola at the International Medical Congress, of paralytic action of the heart due to bulbar injury, with a feeling of oppression, palpitation, sometimes even murmur; with marbling of hands and forearms (paralysis of peripheral vaso-motors), and showing post-mortem pigmental degeneration of the bulbar nuclei of the vagus and of vaso-motor nuclei, and, as a consequence, fatty degeneration of cardiac muscles.

Long ago, Dr. Handfield Jones quoted a case of Graves, of neuralgia of the feet and legs, the disorder not confining itself to the cerebro-spinal nerves, but involving in a high degree the sympathetic nerves also. There were pain, heat, and vascular congestion of the feet and legs, alternating with pallor, cold, and absence of pain.

But the ailment has been fully described in various countries, and with especial accuracy by Dr. Weir Mitchell. He speaks of it as a disorder of the feet and legs generally. There is pain, especially when the foot is hanging down, but also in many cases in any position. It is sometimes associated with lesion of the spinal cord. There is flushing of the feet, both venous and arterial, and tenderness. It is generally relieved by the horizontal position; but occasionally exercise causes the feet to become cold, producing contraction of vessels. Rest seemed to induce flushing in Sir James Paget's case; at any rate, was followed by it. The pain generally precedes the vaso-motor phenomena. Dr. Mitchell thinks the disease is similar to one termed acrodynia (pain in the extremities), which was epidemic in France in 1829-30.

Other American physicians describe a similar affection of the fingers. They become so cold as to seem frozen rods. There is tingling and burning on putting them to the fire. The skin is red in patches; sometimes abscesses form at the tips of the fingers. Mitral stenosis has been found associated with it, perhaps as its cause. Dr. McBride speaks of the fingers becoming dead reflexly through the vaso-motor system; and Dr. Allan Hamilton looks on the disease as excessive irritation of the local sympathetic vaso-motor filaments. I need not say that such an opinion is founded on analogy rather than on proved anatomical facts, as the vaso-motors of the ultimate vessels of the extremities are still unknown to us.

In this ailment there are two chief varieties: one with phenomena of paralysis of bloodvessels, the other with symptoms of contraction, especially of the vessels of the extremities.

In diffuse paralysis of the vaso-motors there is an intolerable sensation of pulses and heat over the body. The face is red, especially the lips and the nasal mucous membrane. It is sometimes accompanied by profuse sweating, and in some cases the vaso-motor phenomena show themselves exclusively in the extremities.

A partial cramp of vaso-motors, confined to the extremities, or to the fingers, is seen sometimes in angina pectoris. In washerwomen this cramp is associated with itching and pain. "The finger dies," there is pallor of fingers or of the whole hand, diminution or loss of sensation to touch, stiffness of the fingers, and local diminution of temperature. It may be cured by faradisation.

More rare is the diffuse cramp of the vaso-motors extending over all the extremities, especially at puberty. In this latter form, Seeligmuller says, the cyanosis depending on venous stasis in the capillaries and veins is a consequence of deficient *vis a tergo*, and does not result from a primary paralysis of the nerves supplying the small veins.

The contractile form may lead to secondary changes, as scleroderma, and Dr. Hadden's recent paper on the connexion between vaso-motor contraction of the peripheral arterioles with myxœdema is an important contribution to the same line of thought. It is sometimes accompanied with the phenomena of vascular contraction in the brain and medulla oblongata, such as disturbances of breathing, attacks of syncope, with delirium, etc.

Dr. Sturge has recorded a case of vaso-motor disturbance of the leg, with diminution of reaction both to the constant and induced currents when the rheophores were applied to the muscles. He also thinks it due to over-excitation of the vaso-motor centre.

Seeligmüller describes hydrops articulorum intermittens as a chronic affection of the vaso-motor nerves; the swelling is rapid, and equally rapid the going down. There is dilatation of all the vessels which supply the synovial membrane of the joint. The vaso-motor nature of the disease is rendered probable by its occasional coincidence with exophthalmos and with angina pectoris.

Closely allied to vaso-motor cramp of the peripheral vessels is symmetrical gangrene of the extremities. There is no lesion of heart or arteries. It chiefly occurs in females, especially the young. It seems to be caused by cold or by moral emotion. One, two, or three fingers may be affected symmetrically, or all the fingers and toes simultaneously. The pulse may be perceptible at the root of the segment of the gangrenous member. Raynaud thinks the interruption of blood is due to spasm of the small vessels, under the influence of excitation of vaso-motors, an excitation which is generally reflex, either from external cold or some affection of the genital organs, and is transmitted to the small arteries and veins.

Vulpian thinks the centre of this action is in the cerebro-spinal centre, and that this is shown by the symmetry of the disease; he doubts also whether the arteries are always healthy. But all the phenomena may be produced through the media of vaso-motor ganglia placed in the course of the vaso-motor nerves, and the bulbar centre may have nothing to do with it.

Dr. Bernhardt, of Berlin, has recorded two cases of vaso-motor neurosis of the extremities, in the *Archiv für Psychiatrie und Nervenkrankheiten* for last year. His second case is remarkable as being unilateral, but this may be explained from the symptoms probably depending on unilateral accident. Both his cases were treated successfully by faradisation.

Such cases in their full intensity are not common, but, I repeat, lesser degrees of the disorder are not unfrequently met with in persons, especially young women, otherwise tolerably healthy. I have seen two in the last few months.

In considering some of the diseases affecting the abdominal viscera, it is well to remember that the vaso-motor nerves of the liver have their origin in the floor of the fourth ventricle, pass through the cervical and upper dorsal regions of the cord and the rami communicantes opposite the fourth and fifth dorsal vertebræ, to join the sympathetic, and finally enter the liver as the hepatic plexus; that the splanchnic nerve is a direct inhibitory nerve, and passes into the dorsal region of the cord; that it contains also the vaso-motor nerves of the small intestine, and that its inhibition of peristaltic action may be due to decrease of the amount of blood in the intestine; that, as we have seen, reflex action on this nerve may so far manifest a paretic influence on the intestinal vessels, that an extreme storage of blood is produced in these vessels, lowering arterial pressure everywhere, retarding the heart, and even causing syncope; that this afflux of blood, this temporary hyperæmia, may result in diarrhœa, and is probably the explanation of diarrhœa, in many morbid conditions—markedly in cholera; in cholera too the semilunar ganglia have been found diseased; that the peristaltic movement of the intestine is automatically excited through the parenchymal ganglia, though it can be accelerated from the abdominal and thoracic sympathetic system, and inhibited by the splanchnic nerve; and that extirpation of the cœliac and mesenteric plexuses leads to hyperæmia and ecchymosis.

Hermann says that it is still unproven whether the diarrhœa, the consequence of the extirpation of the mesenteric plexus, depends on the influence of the secreting nerves or on disturbance of the circulation. I think the latter condition is an important element in its causation. He mentions that in a dog, in which all the ganglia of the cœliac plexus were extirpated, there was great emaciation. Although life was prolonged, there was great weakness, no loss of intellect, and after three weeks, recovery. When the animal was killed, no abnormality of the chyle-forming organs was found. Lansansky therefore concludes that this plexus is not necessary to life.

Most of the experiments on the cœliac plexus prove that it is sensitive to pain. In a similar way, we meet with hyperæsthesiæ of the solar, mesenteric, hypogastric, and spermatic plexuses. That that form of gastric neuralgia that is termed lead colic, is connected with toxic lesion of the sympathetic (as of other nervous tissues), seems proved by its association with the small hard pulse due to cramped narrowing of the whole peripheral arterial system, with whiteness and coldness of the face and extremities. The cardiac energy is diminished, the apex-beat is scarcely felt, the pulse may vary from thirty to sixty in the minute. In two cases, lesion of the sympathetic has been found. In one there was an increase of volume, and a greyish-yellow colour of the abdominal ganglia; in the other, sclerosis of the connective tissue in the cœliac plexus. Asthma, vertigo, perspiration, tenesmus, suppression of urine, and palpitation are all met with in connexion with lead colic.

The two following cases show a divergence as regards sensation that is interesting. A gentleman became very suddenly affected with acute myelitis. In the course of two or three hours he became absolutely paraplegic (motor and sensory), the sphincters were useless. There was girdle pain just above the umbilicus, up to which spot anæsthesia was complete. For the eight days he lived, his appearance was remarkable from the very intense intestinal distension. Under ordinary circumstances such distension would have caused much pain; but although he resembled a barrel in appearance, he complained of no pain below the umbilicus, though the pain and distress above this point, consequent partly on the impossibility of diaphragmatic action, were considerable.

The other case was that of a young lady, aged seventeen, not hysterical. It was thought that she had tired her spine by over-riding. Constipation had been troublesome for six months before her illness, and it persisted as a marked symptom for many weeks. As a rule very large and drastic enemata were retained, but from time to time fæcal masses were got rid of, in one of which, on a single occasion, were found some peas, which she had eaten raw or imperfectly cooked fully two months before; the peas had sprouted in the bowel. The agony this girl experienced was extreme, although all the symptoms were those of almost complete paralysis of the plexuses of the sympathetic that rule peristaltic movement. In this case there was tenderness along the spine, from the mid-dorsal region down to the coccyx.

I presume the case should be called one of neurasthenia, possibly with hereditary predisposition, as the mother had been a martyr to gastric neuralgia; as it would not be likely that irritation of the splanchnic, and so increased inhibition of peristaltic movement, would persist for so long a period.

Of course the same objection may be made to the long persistence of reflex paralysis; but another case under my own observation is somewhat striking on this point. A very sensible and active shopwoman, thirty-six years of age, gave the following account of herself. She believed she had been born blind of the right eye. At any rate, she remembered, when she was a very little girl, being taken to see an oculist in London, who said that she would never see. She could not distinguish light with the right eye. In January of the present year she had a canine tooth on the right side of the mouth extracted. She immediately became conscious of

light, and in a few days entirely gained sight in this eye. The optic disc and retina were perfectly normal, yet for thirty-six years she was quite blind, apparently from some reflex influence connected with the alveolus of this canine tooth. With such an instance, it may be well not to speak of the impossibility of reflex irritation or reflex paralysis being persistent for long periods. But the neurasthenia of the abdominal sympathetic in adult life may be only due to premature old age. The deficiency of peristaltic action, and often more or less of intestinal secretion, that is frequently met with in old age, depends on exhaustion, on deficient blood-supply, quantitative or qualitative, to the parenchymal ganglia, or on commencing atrophy of the spinal cord; and is simulated much earlier in life by anything that depresses power, such as various exhausting diseases, the nerve-fatigue consequent on coition, prolonged travel, etc.

Injury of the vaso-motor centre for the liver in the medulla oblongata, or of the nerves that arise from it, in their course down the spinal cord, or from the cord to the hepatic plexus, leads to paralytic dilatation of the vessels of the liver, producing hyperæmia and diabetes mellitus. Claude Bernard found the exact spot in the medulla oblongata, close to the origin of the vagus, between the nucleus of this nerve and of the acoustic. He proved that the vagus has nothing to do with the diabetic phenomena, but the sympathetic in its relation to circulation. The mechanism is by means of paralytic dilatation of these vessels of the liver, causing an increased flow of blood, and thus, by transformation of the glycogen, an augmentation in the quantity of sugar formed; this, entering the general circulation, shows itself in the urine.

The vaso-motor nerves of the liver can also be paralysed by injury of the cervical and upper thoracic ganglia of the sympathetic. Division of the splanchnic nerves does not cause diabetes. Apart from experiment, there are not many cases on record that definitely show a connexion between diabetes and the sympathetic. It has been seen in lesions of the cerebellum, especially of the vermis, of the optic thalami, the crura cerebri, the pons Variolii, the middle crura of the cerebellum, and in injuries of the medulla oblongata. I have sometimes seen it follow small hæmorrhages in old people in the motor area of the cerebral convolutions. But saccharine urine has been seen in a case of sciatica, and has disappeared when the sciatica was cured. Symmetrical sciatica has been observed in association with diabetes, and I have seen symmetrical neuralgia of the fifth nerve under the same circumstances. In three cases of diabetes there was also hyperidrosis unilateralis; and Burdel found sugar in eighty cases out of eighty-one of intermittent fever. The glycosuria became slighter when the fever lost its intermittent and took on its remittent type. Verneuil has recorded a similar case.

Not only is the vaso-motor action on the hepatic vessels a necessary element in the production of diabetes, but Schiff speaks of the same influence on the capillaries of the general circulation. The immediate mechanism for producing diabetes is the formation of a substance that can easily be transformed into glucose, and the presence of a ferment to induce this transformation. Schiff declares that the ferment is also produced in the capillaries of the general circulation, with the necessary element of stasis of blood; and conditions which lead to stasis are all-important to this end.

Diabetes may be a term that includes diseases of various origin. It is perfectly certain that congestion of the liver, necessary as it may be to the formation of the products that induce diabetes, is not in itself the one and only cause. How many cases of congestion of the liver come before our notice, in which these diabetic phenomena do not obtain. But in a large number of cases—a number that increases the more readily we realise the relation of one part of the body with the rest by means of nervous influence—the floor of the fourth ventricle is the centre of a reflex arc for diabetes. Its centrifugal effects are not carried to the liver by the vagus—the cervical ganglia are not involved. The bulbar influence is carried down the cord, most probably, I believe, if we could only trace them, by sympathetic fibres passing along the cord simply as along a roadway, and not partaking of the nature of the organ, and, joining the arch between the last cervical and the first dorsal ganglion, are transmitted down the splanchnic nerves to the solar plexus; whilst some communication may also take place along the thoracic ganglia and the first abdominal ganglion, and the solar plexus be reached thus. Thence fibres go, to make up the hepatic plexus, and to rule the condition of the circulation in the liver. But this is not all. Over and above the dilatation of vessels and the increased hyperæmia of the organ, there are transmitted through the same channels other fibres that influence the phenomena of nutrition and secretion—fibres that play a part in the liver resembling that played by the fibres of the chorda tympani which excite secretion in the submaxillary gland.

The influence of the sympathetic system, therefore, is very great in diabetes. It includes direct or reflex lesion of a bulbar centre, or lesions so near as to be almost direct: hyperæmia of the liver, sometimes stasis in the capillaries of the general circulation, an influence on the secretion of glycogen, and of the ferment necessary to its transformation.

Nor is this the only condition of liver influenced specially by the sympathetic. In a case recorded by Dr. Shingleton Smith, of acute atrophy of the liver, not only was this organ very small, but there was found an atrophic condition of nerve-cells in the sympathetic ganglia. And certain injuries to the solar plexus cause increase of the circulation of blood in the liver, and increase of bile.

Injury to a spot in the floor of the fourth ventricle, in close proximity to the diabetic point, induces polyuria, evidently from increase in the activity of the intra-renal circulation. The polyuria is the primary condition, and is the result of the morbid state of the renal vaso-motor system. Temporary polyuria under the influence of strong emotion is of every-day occurrence; but Dr. Crichton Browne has mentioned a case of a boy in the late Dr. Beghie's wards, who was placed, very much against his will, in bed with a patient who was suffering from diabetes. The boy expressed a fear that he would catch the disease, and certainly, from the influence of emotion on the medulla oblongata, and so on the renal vessels, he became the subject of polyuria.

The recognition of the part taken by the vaso-motors of the kidney in this complaint has led to a more successful treatment of a hitherto difficult disorder. Faradisation over the kidney, and ergot, have proved useful remedies.

We come, lastly, to those diseases that are associated with pigmentation. Irritation of the splenic plexus reduces the size of the spleen. Division of the splenic nerves causes distension of spleen by dilatation of vessels. Jacshowitz divided the sympathetic in the spleen, and caused increased flow of blood, and a copious deposit of hæmatine pigment in its cells. Dr. Coupland, in his lectures here last year, stated that the liver seems to be the chief seat of the destruction of red corpuscles; for not only does the blood passing out of this organ contain comparatively fewer corpuscles than that entering it, but its cells are laden with pigment derived from the blood, which they excrete with but little modification in the bile.

Melanæmia is a transitory condition, quickly replaced by melanosis of the spleen, liver, and bony marrow. The pigment is first taken up by the white corpuscles. The small vessels are sometimes obstructed by pigment. The spleen is enlarged. The splenic cachexia is associated with destruction of red corpuscles, and consequent marked anæmia. The dark colour of the skin is produced by abundance of pigment in the vessels of the cutis. The granular pigment in the blood exists either free or in cells, or in little hyaline coagula. It is equally distributed in the heart and great vessels. The white corpuscles are occasionally increased. Much pigment means great destruction of red blood-corpuscles. The spleen is especially affected, but often after intermittent fever it is amyloid, and contains little pigment, and in this case the liver and bony marrow contain much.

In the spleen and bony marrow the capillaries pass into very wide veins—a circumstance that must act in diminishing the rapidity of the blood-current. This is an important factor in all pigmentation: there is more or less stasis of blood-current; and in this, too, the influence of the sympathetic system comes in. First comes lesion of sympathetic ganglia, especially in the abdomen, influencing the production of pigment; then the circulation of abnormal blood in the vessels, reflexly influencing their calibre; then stasis, of greater or less intensity; then pigmental deposit.

Dr. Paget's beautiful case, mentioned at the Congress,

well illustrates lesion of the ganglia. It was an example of lymphadenosis, with brown pigmentation of the skin. The semilunar ganglia and solar plexus were involved in a closely aggregated mass of enlarged lymphatic glands. The pigmentation here was associated with another sympathetic symptom—profuse perspiration.

In Hodgkin's disease, lymphadenoma, the spleen may be enlarged from more causes than one; but in the form that depends on destruction of the circulation there is much hyperæmia and a copious deposit of pigment; occasionally this is seen in the skin.

The influence of the nervous system over the proportion of the various constituents of the blood has been recognised by many physicians. Dr. Wilks speaks of fatal anæmia after shock to the nervous system, and quotes Sir Henry Marsh's case of a young lady who accidentally poisoned her father by giving him laudanum instead of black draught. The occurrence so pressed on her mind that she took to her bed, became anæmic, and, before many months had elapsed, died, without any apparent organic disease.

Dr. Coupland says: "The intimate relation of the nervous system with all parts of the body point to an extensive control over blood-formation, and over nutrition and secretion; so that, under certain conditions, the nervous system may bring about an anæmia other than by the exhaustion of material supplied to it by the blood."

In a case of fatal anæmia, under the care of Dr. Greenhow, reported by Dr. King, the then Medical Registrar to Middlesex Hospital, the reporter says that "the case must be regarded as one of defective blood-nutrition, due to morbid changes occurring in nervous centres connected with the sympathetic system—centres which normally preside over the blood, vascular and lymphatic glands, superintending the production of that highly complex fluid which it is the special function of these glands to elaborate." In a very marked case of anæmia, associated with cerebro-spinal sclerosis, I found almost all the abdominal viscera markedly pigmental, and to a less degree the brain also.

These questions should be looked upon in connexion with the known fact that direct irritation of the solar plexus by experiment is followed by the appearance of numerous pigment granules in the blood; whilst staining also follows irritative action on the solar plexus from cancer of the stomach, cirrhosis, and other affections of the abdominal organs. A staining in the face in phthisis is spoken of by Dr. Guéneau de Mussy as a sign of the presence of abdominal tubercle—a counexion we all frequently verify.

Discolouration will occur from the action of local irritants, as heat, light, blisters, etc. In every such case, a slight local vaso-motor paralysis is induced, and more or less blood-stasis.

Anxiety may induce pigmentation that may almost remind one of Addison's bronzing. I have seen this very marked in a gentleman, from whom it disappeared when the anxiety passed away; and such cases are not uncommon. In a large number of cases, however, there is a morbid condition of the blood itself. Many years ago, Mr. Teevan recorded a case in which tension and irritation of the brow and eyelids were followed by an exudation of a blackish fluid, which persisted for eight hours, and recurred constantly during four months. The case was explained by Erasmus Wilson as depending on an altered action of the follicles of the skin of the eyelids, resulting from vascular congestion, this vascular congestion being probably vicarious to imperfect menstruation. De Mericourt, too, described a blackish, sometimes bluish, exudation on the skin, which discoloured linen, but could not be washed away, and which was connected with uterine derangement. It was worse in hot weather, and during effort, under emotion, or from fatigue.

By the kindness of Dr. Swayne, I show here plates of the arms of a lady, whose case has already been reported by him in the *Obstetrical Transactions*. The subject was a blonde, with rather florid complexion, brown hair, and blue eyes. At the time of her confinement there was a peculiar appearance of the skin of both forearms and hands. There was a very general discolouration of the skin of the forearms, more marked on the dorsal than on the palmar aspect. On the dorsal aspect it occupied all the surface of the arms, and existed in patches on the hands, the knuckles, and all the fingers. The skin in these spots was of a rich yellowish-brown colour, or as dark as the skin of a mulatto. The skin had been similarly affected in each preceding pregnancy; and the dark colour first appeared about the end of the third month, and increased *pari passu* with the development of the areola, until it attained its acme at the time of labour. After delivery, it soon began to diminish in intensity, and in about three months had entirely disappeared. Her mother had two children, and in each of her pregnancies both the arms and the neck were spotted in a similar way; and, being a very fair woman, the discolouration was still more evident than it was in the daughter.

A case like this only shows in an unusual position, and in an inordinate degree, phenomena that are met with in most cases of pregnancy. The mammary areola, the staining of the forehead, the less frequent pigmentation of the abdominal surface in pregnant women, are conditions that own one and the same cause—(1) the cachexia consequent on the pregnant state; (2) uterine irritation; (3) transmission of this uterine irritation to the solar plexus; (4) the consequent formation of an abnormal amount of pigment; and, lastly, the further transmission of irritation to some of the vaso-motor nerves, determining in various positions the vascular congestion and stasis necessary for the deposit of the pigment.

Many other cachexiæ possess all the necessary factors for pigmentation, if only direct or reflex influence on the vaso-motors be induced. In leukæmia, pernicious anæmia, tertiary syphilis, cancer, even chronic rheumatism, gout, and phthisis, the production of pigment from irritation of the solar plexus may constantly occur. Blepharal melasma is common during menstruation. In some women it is permanent, associated with chlorosis or melancholia, especially in non-fertile middle-aged women. Pigment is rarely symmetrical in women. Blepharal melasma of the lower lids is very rare in men; but when it occurs it seems connected with sexual excess or some genito-urinary disorder.

Dr. Laycock considered the nervous sources of pigmentation to be two: one due to certain cerebro-spinal influences, the emotional; the other due to the peripheral influence of the sympathetic, without consciousness. The latter is the form in which the genital system is frequently the starting-point; but the sympathetic system is largely implicated in the emotional form also. When emotion is seen to paralyse the vaso-motors of various parts of the body, to dilate the pupil, to materially interfere with the action of the heart, to influence perspiration, the amount of urine, the catamenial function, the sexual feeling, it is impossible not to look at emotional pigmentation as essentially a sympathetic disorder. Laycock mentions the case of a woman who, in the French Revolution, incurred the anger of the Parisian mob, and with difficulty escaped being hung in the streets. Her terror caused a gradual black discolouration of the whole body, and this remained with her for life.

The reflex influence on pigmentation is beautifully shown in some experiments and observations of Pouchut. A young turbot varies in colour with the colour of the rock or of the sand on which it rests. These changes depend on the greater or less absorption of light by the bottom (whether of sand, rock, etc.), so they must be regarded as true reflex acts, having, Pouchut believes, their centre in the brain, and their starting-point in retinal impressions. His experiments prove that it is the great sympathetic which governs the chromatic function. It forms the route of transmission for the influence going from the brain to the cutaneous chromoblasts; indeed, the retinal impressions transmitted to the corpora quadrigemina may be directly reflected on the vaso-motor centres.

Addison's disease, purely a disorder of the sympathetic, owns a causation similar to other pigmentary changes. The changes have been well defined as (1) a lesion of the sympathetic nervous system; (2) inflammatory processes in the connective tissue of the supra-renal glands; (3) from the products of the inflammation ensues a paralytic condition of the vaso-motor fibres of the sympathetic, and consequently an imperfect distribution of blood; (4) on this are to be saddled all the phenomena of the disease—anæmia, disturbance of nutritive functions, bronzed skin, and a secondary affections of the blood.

Eulenburg and Guttmann have collected twenty cases, with more or less lesions of the abdominal ganglia, and twelve in which no lesion was recognised.

The original disease of the supra-renals may have spread to them from inflammatory conditions in their neighbourhood; but the phenomena of the disease are due to the

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extension of the lesion to the nerve-elements. Kolliker found thirty-three nerve-trunks in the right supra-renal capsule; and many observers have found the medullary portion of the capsule, which is essentially a nerve-centre, in a state of hyperplasia of the connective tissue, and gradually becoming mere fibrous bands. Even in cases in which lesion of ganglia cannot be found, the phenomena may arise from reflex irritation starting from the cortical portion of the gland. The disorder is associated with vertigo and other nervous phenomena; sometimes with a fœtid odour of skin, like that of a negro; with sighing, yawning, hiccough, and irritability of stomach.

In a case lately under my care, the dark pigmentation of skin, that was the sequence of prolonged ill-health and anæmia in a girl with a very phthisical family history, was associated with all the symptoms of exophthalmic goitre.

Dr. Semmola considers the disease one of the ganglionic centres, independent of the supra-renal capsules; and the possibility of this view is confirmed by a case recorded by Dr. Fowler, in which, with all the phenomena of Addison's disease, there was no lesion of the supra-renals, but the ganglia were compressed by a tumour in the abdomen.

The influence of the sympathetic touches every normal function of the body, every abnormal disorder; it needs no saying, therefore, that the present sketch is essentially inadequate. But it may be said, *en resumé*, that this system is the connecting link for function between all organs; that its close brotherhood—I had almost said cohesion—with the cerebro-spinal nerves and centres, brings into association in a thousand ways the purely nervous phenomena with those more primarily sympathetic: that it is frequently the seat of coarse lesions, but that, where the same symptoms are met with, when these coarse lesions or injuries cannot be recognised, it is only fair to believe in an irritability, a morbid condition of the sympathetic ganglia, the anatomical elements of which may probably present themselves to means of research, as these become more accurate.

In congestion, in hyperidrosis, in some forms of angina pectoris, in sunstroke, in the regulation of vascular tone, and in its many abnormalities, in vaso-motor neuroses of the extremities, in symmetrical vaso-motor gangrene, in some varieties of aneurism and of albuminuria, in diabetes mellitus, in diabetes insipidus, in hysteria, hypochondriasis, and other forms of neurasthenia, in those protean disturbances of the economy that are excited by emotion, and lastly, in pigmentation, including Addison's disease,—the influence of the sympathetic seems primary, and almost, if not wholly, independent. In inflammation, including practically inflammatory disorders of all organs, in fever, in hemicrania, in exophthalmos, in progressive facial hemiatrophy, and in epilepsy, the part played by this system of nerves is secondary, though important. In most of these, however, as of other ailments, the cardiac phenomena, the conditions of vascular tone, the perspiration and diarrhœa, the marvellous influence of the abdominal nerves and vessels on the distribution of blood in the body, are evidences of collateral and coincident disturbances of the sympathetic.

This system is far more than a chain of transmission from the higher nervous centres. It often stands alone; far more often in correlation with the cerebro-spinal system.

CONTUSIONS IN THE REGION OF THE TROCHANTER.—Prof. Verneuil, on the case of an hysterical girl brought to his clinic for supposed hip-joint disease, but who was really suffering from contraction of the muscles of the thigh, due to a fall on the region of the trochanter, observed that a robust butcher-boy so falling suffered from a contusion which was cured in a few days; while, from the same cause, a scrofulous subject contracted a coxalgia, which carried him off in two months. In fact, in these falls, individuals "always get what they have a right to." For the relief of the present case, after anæsthetising the patient, he directs that active movements shall be imparted to the limb, which is then to be confined immovably in a splint for a week. At the end of this time the patients are almost always cured, to the great astonishment of their friends, who usually regard these cases as incurable. Let young practitioners who have a reputation to make bear these cases in mind.—*Journal de Thérapeutique*, August 10.

ORIGINAL COMMUNICATIONS.

CASE OF

PROGRESSIVE LOCOMOTOR ATAXIA.

By JAMES C. DE CASTRO, M.R.C.P.L.

THE following case may be instructive as showing the caution necessary in making the absence of one or two symptoms usually characteristic of a malady too absolute in diagnosing its non-existence, especially when these given symptoms have no necessary connexion with the pathological condition constituting the disease.

S. P., a man of about sixty, not of precisely robust constitution, but still having generally enjoyed fairly good health, had led a very active outdoor life, in the way of hunting and shooting. Four years since he came up to London from his residence in the West of England in pretty nearly his usual state of health, with the exception of some flying pains extending from the sacrum to the calves of the legs. There was also slight impairment of the power of moving the right leg. He went down to the South Coast to inspect some house property, remained a long time in an unoccupied house, got a severe chill, and returned to London feeling considerably worse—more pain in the limbs, some cramp, and, at times, sensation of "pins and needles" in the legs and feet, and rather increased impairment of the power of walking. Coincident with these symptoms, micturition was tedious, from deficiency of the normal sensation in passing water; and the same condition existed, in a lesser degree, when going to stool. Some numbness of the palmar surface of the fingers. Being out of town at the time, I was consulted by letter as to the significance of these symptoms. I gave the opinion that whilst the symptoms might possibly arise from gouty disturbance (to which the patient was somewhat liable) *plus* a chill, nevertheless they pointed to something much more grave, viz., mischief commencing in the spinal nerves and cord. He then saw an eminent physician, who negatived the existence, or even fear, of any affection of the nervous system, and attributed all the symptoms to gout and the chill he had got in the country, and gave the opinion that a little rest would "put him all right."

He returned home, and after a lapse of some weeks became so much worse that I was called down from London to see him. His condition then was as follows:—Tormented with lancinating pains extending from the buttocks to the calves of the legs; at times rather severe cramps in the legs. Inability to walk, even across the room, without assistance; gait rather precipitous, and the feet brought down flat to the ground. Could stand erect pretty steadily, but tottered if he closed his eyes. Plenty of muscular power in flexing and extending the legs; marked numbness of palmar surface of fingers and of soles of feet—felt, when he walked on the flags, as if he were "treading on wool." Micturition very tedious from deficient normal sensation; the same deficient sensation when going to stool—as he expressed it, he scarcely knew sometimes whether he wanted to relieve the bladder or the bowels. Urine normal. Numerous spontaneous sores on sacrum and legs. No marked change in the retinal expansion of optic nerve; no defect of sight or hearing; no diminution of "patellar reflex action."

I gave a pretty confident opinion that it was a case of so-called progressive locomotor ataxy, with fibroid or amyloid degeneration of the roots of the posterior spinal nerves, possibly involving the cord itself.

After some weeks (eight) the sores healed, and he regained rather more power in walking, and came up to London. Two eminent practitioners were consulted, who negatived the diagnosis of locomotor ataxy. One of these physicians (a noted specialist) emphatically negatived the existence of structural change in the spinal nerves or cord, upon the ground that there was not degeneration of the retinal expansion of the optic nerve, and that considerable improvement had occurred in the symptoms, especially in the power to walk; but this power only existed to the extent of being able to walk a few hundred yards, holding on by the back of his Bath chair. All the symptoms were attributed to "gouty poisoning of the blood," and the patient was sent to Buxton.

No marked improvement resulted from his sojourn at Buxton, and the employment of the waters. It is now four years since the commencement of the patient's illness, and after manifold fluctuations in his condition (sometimes better, then again worse), his present state is as follows:—Inability to walk without the aid of some one's arm and a stick; gait precipitous, feet brought down with a thud on the heels; the patient complains that "he cannot bring his toes properly to the ground." Can stand erect with his eyes open, but immediately he closes them would inevitably fall if not supported. Neuralgic "lightning" pains in the limbs—thighs and legs—apt to be aggravated by any undue exertion in walking or going upstairs. Numbness of palmar surface of fingers, so that he can with difficulty deal a pack of cards. Micturition as before. When he laughs, slight involuntary discharge of urine—showing a return to what has been called the infantile condition, which is only another term for retrograde function, resulting from structural degeneration. The same deficiency of sensation in relieving the bowels, and now some loss of power over the sphincter ani, inasmuch as under the stress of a smart aperient, or if suffering from accidental diarrhœa, the stools are involuntary. Still, no marked change in the retina, or defect of sight or hearing; neither is there any want of "reflex knee action."

There can be no question but that this is a case of locomotor ataxy, and the fact that this has been disputed by five eminent practitioners (Sir J. Paget alone endorsing the original diagnosis of structural change of the spinal nerves and cord), brings us back to the remark I began with, viz., that caution is necessary in making the absence of any one or more symptoms usually characterising a malady a ground for negativing its existence; especially when such symptoms have no absolutely necessary connexion with the pathological condition existing. No doubt degeneration of the retinal expansion of the optic nerve, with defective sight, and, still less frequently some deficiency of reflex knee-action, are in a vast number of cases, we may say in the great majority, the first symptoms existing, and as corroborative signs are of great importance. But inasmuch as many cases of locomotor ataxy occur without these symptoms being present, their absence cannot be a legitimate reason for negativing the existence of the disease, in the face of symptoms of defective co-ordinate action of the muscles; the peculiar neuralgic pains, aggravated by exertion; deficient normal sensation in the sphincters, without marked want of power over these; the precipitous gait, and plantar manner of bringing down the feet; and withal, perfect, almost exaggerated, power of flexion and extension in those very muscles which are incapable of healthy action when the patient attempts to walk, or even to stand, with the eyes closed.

Still less can improvement in the symptoms be taken as a proof, or even as a strong argument, that structural change does not exist. The adaptative power of the nervous system is very great. Structural change remaining, functional power may improve. Of this fact we have illustrations daily in lesions of the brain and cord. It is not at all uncommon to see marked improvement occur in quite typical cases of locomotor ataxy. The improvement is mostly temporary, but not invariably so. At the same time, I cannot, from my own experience, endorse the statement of a recent writer in your journal, that this malady is very frequently curable—not even incipient cases, if the term "incipient" means, as it should do, commencing structural change. I cannot say anything about suspected incipient cases, because this opens the door to fanciful inferences of no practical value whatever, as to the effects of certain drugs or systems of treatment. I am more and more convinced of the importance of Dr. Radcliffe's statement that rest is a very essential part of any treatment, being in some cases alone sufficient to produce improvement in the symptoms, and that, conversely, undue exertion is most pernicious.

There was no pretence for attributing the origin of the disease in this case to syphilis, nor has there been in many others coming under my notice; and I cannot help thinking that this cause is, and has been, greatly exaggerated by some writers on locomotor ataxia. Of course, if we trace back to past generations, we may find an excuse for maintaining a syphilitic origin; but this would hold of any chronic disease. In some men's minds there is a fixed idea of gout, in that of others, of syphilis, as the origin of most diseases; and the consequence of this one-sidedness is, that there is an end of scientific etiology, and more too—it leads often to very fanciful and erroneous diagnoses. It may, however, be conceded that syphilis is an important factor in the production of this disease.

11, Hinde-street, W.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CHRONIC SUPPURATION OF THE LEFT TYMPANUM—ABSCESS IN THE LEFT MIDDLE CEREBRAL LOBE—DEATH.

(Under the care of Mr. MORRIS.)

ALICE H., aged thirteen years, came under care on November 18, 1876, for cold sweats, pain in the head, drowsiness, and general loss of power. When three years old she had measles, followed by deafness of the left ear. For a long time there was no visible external discharge, but her mother noticed an occasional moisture in the left auditory meatus. The patient had never enjoyed good health after the measles. When first seen, there was a purulent discharge from the ear; she was suffering great pain, which was becoming worse and worse, in the head and over the back of the neck, and was most especially severe behind the left ear and over the left side of the head. Medical treatment failed entirely to give relief, the symptoms progressively increased, and she died on December 3, having been acutely ill just over a fortnight.

A *post-mortem* examination disclosed pus in the tympanum, caries of the petrous bone forming the roof of that cavity, and an abscess in the left temporo-sphenoidal lobe, limited on one side by the pia mater, and on the others by the brain-matter.

Remarks (by Mr. Morris).—This case tends to confirm the rule stated by Mr. Toynbee, viz., that disease of particular portions of the ear causes morbid action in certain definite localities within the cranium, and that inflammation of the tympanum propagates disease to the middle cerebral lobe. Neither trephining nor an incision over the mastoid bone was indicated by the external conditions of the parts; nor is it possible to see that good could have followed from either measure, unless at the onset it had provided an escape for the pus in the tympanum.

Shortly after the above case had passed under my observation, I removed an aural polypus from the left ear of a girl aged sixteen years, whose family history shows a striking disposition to affections of the ear.

Rachel R., aged sixteen, applied to the Bloomsbury Dispensary, on March 25, 1878, with an elongated oval-shaped polypus in the left ear. When six years old she had scarlet fever, which left her deaf of the left ear and with enlarged tonsils. The tonsils were shortly afterwards removed. When eleven years old a polypus which had been slowly forming was removed from the left ear. When twelve years old she had St. Vitus's dance, which lasted for nearly twelve months. After the excision of the polypus a discharge took place from that ear, and continued. She *heard* no better after than before its removal. The second polypus, which I removed on March 25, 1878, by means of a pair of artery-torsion forceps, had been slowly growing, and was projecting beyond the meatus into the concha of the ear. The discharge from the ear recurred, and the deafness continued. I see her now frequently; she is a well-formed, and has been a well-nourished young woman. She is, however, at the present time losing flesh, has a rather pale, weary, and depressed look, and complains of great weakness. She is, too, always suffering from headache, and has an occasional slight upward and inward strabismus of the left eye, and sometimes, the mother says, the eyes "look all crooked." She has once or twice of late had "fainting fits." There is still a thick, scanty, purulent discharge from the ear, though she keeps it very carefully syringed with tepid Condy's fluid, and has been taught to blow through the tympanum. It is to be feared that before very long some intracranial inflammation will cause her death.

Five years ago the brother of this girl was under my

predecessor at the Bloomsbury Dispensary, and his case is well remembered by the present Resident Medical Officer—Mr. Steele—who made the post-mortem examination. This boy was fifteen years old when he died, and had been engaged at a printer's in the City. When eight years old he had scarlet fever, and subsequently was constantly suffering from left earache and pains in the left side of his head, but was never deaf. Three weeks before his death he was taken ill with intense pain in the head, contractions of the back of the neck, and severe earache, which went on increasing. He was soon obliged to take to his bed. The pain extended all over his head. The slightest movement caused insufferable agony and a loud, sharp scream. There was marked intolerance of light and sound, frequent and profuse vomiting, and, for an hour or two before his death, coma. At the post-mortem examination, immediately upon removing the tentorium cerebelli, pus was seen around the cerebellum and pons, extending along between the pia mater and arachnoid to the medulla.

Another member of the same family, a girl twelve years old (Winifred R), has ever since she had scarlet fever, ten years ago, complained of frequent earache. When she catches a slight cold the pain is always worse; and she is in the habit, whenever she sneezes, of holding her ears between her hands, as she says she feels as if something would give way in the left ear, and she will often cry out to her mother, saying her "left ear has cracked."

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, SEPTEMBER 2, 1882.

PHARMACY AND MEDICAL MEN.

The meeting of the British Pharmaceutical Conference was held last week at Southampton, and the annual address was delivered by the President, Professor Attfield, who took for his text the Duty of Pharmacy to the State. He divided the subject into three branches, viz., the collection, preparation, and distribution of drugs. Each of these divisions, it is scarcely needful to say, was handled with ability and originality. The first two of them, the collection and preparation of drugs, concern the chemist and druggist especially: although of importance to everyone, few except those engaged in pharmacy will be able to thoroughly enter into them with Dr. Attfield. The last, the distribution of drugs, is the function which brings the druggist into close relation with the medical profession and with the public. It is impossible for anyone to discuss it without raising the ever-burning questions of dispensing by medical men, and prescribing by druggists. Upon these points, therefore, we will extract the more important of Professor Attfield's remarks, and venture to briefly comment thereon.

Dr. Attfield divides the distributors of drugs into five classes. These are:—1. The *pharmacist* proper, who not only dispenses, but prepares, his drugs; who does not merely mix and sell drugs, but who guarantees their quality. 2. The *druggist*, who buys his drugs wholesale from the manufacturer, and sells them retail, the only pharmaceutical act done by him being the mixing them in accordance with prescribed directions. 3. The *general practitioner*, who dispenses his own medicines. 4. The *grocer*, who buys certain common and popular drugs in large quantities, and sells them in small quantities. 5. The *patent medicine* vendor. What Dr. Attfield would wish, and what he hopes will gradually take place, is the limitation, by the intelligent preference of the public and the medical profession, of the business of drug distribution to the first-named class—those who prepare as well as distribute.

Upon the question of dispensing by medical men, Professor Attfield says little. The medical practitioner, he says, "cannot be, and probably never desires to be, a competent pharmacist. . . . Year by year . . . he will probably find his pecuniary interest, his tastes, and his aspirations for social position, prompting him to relinquish drug-distribution altogether.

The practice of counter-prescribing by druggists Professor Attfield defends, assuming it to be limited in extent, by arguments as able and unassailable as could possibly be adduced in its favour; and indeed, if chemists restricted themselves to the function which he claims for them, they could scarcely be blamed. We quote his words:—

"The demand for simple remedies by all persons, and the habit of prescribing simple remedies by all persons for themselves, or for one another, are matters which always have lain outside, and always will lie outside, medical practice by professional men, a demand and a habit the source of which lies deep down among the springs of human nature and of the common sense of free people. . . . . The demand and the habit exist naturally in this country, and must be dealt with wisely. They scarcely admit even of definition, or of the drawing of any line up to which they may go and beyond which they may not go. This much would seem certain, however, that if a mother for a child or a friend for a friend may prescribe a remedy which has proved serviceable under similar circumstances, surely a druggist, who is daily dealing with remedies from year's end to year's end, may prescribe simple remedies too. If one druggist will not do so, we may be quite sure another will; and that to the extent to which druggists generally do not or cannot prescribe simple remedies, to that extent patent-medicine owners will step in and supply the irrepressible demand. Some medical men decry the habit of prescribing by druggists; but is the demand for simple remedies by channels other than the medical man's prescription thereby curtailed? Probably not. On the other hand, do not such medical men, and those druggists who from various motives follow the medical lead, thereby play directly into the hands of the proprietors of patent medicines? In the United States the practice of medicine is largely separated, and most wisely separated, from the practice of pharmacy. But besides this, the open recommendation of simple remedies by druggists is discouraged, With what result? In no country is traffic in secret remedies more rife. It is of course wrong for the pharmacist to meddle with pathology, attempting to diagnose while knowing nothing about the human frame. I trust no one will construe what I have said into support of quackery. But whenever and wherever a druggist is free

to sell a patent medicine, he surely should be free to sell and be able to sell a simple remedy prepared by himself, by the aid of that special pharmaceutical knowledge and skill which are the guarantee that he is something more than a mere drug-distributor. The inability to recommend remedies characteristic of the mere seller of drugs, and the professional jealousy which would stop a qualified pharmacist from recommending them, have probably done more to foster the present enormous demand for secret remedies than all other causes put together. The reduction of what is sometimes termed the patent-medicine evil will probably be effected, chiefly, by that gradual extension of pharmaceutical knowledge amongst our future pharmacists, which will enable them to supply from their own shelves simple remedies for those tiresome minor maladies for which the public are now driven to patent medicines. The druggist who in this country prescribes simple remedies is a man who has been called into existence by the wants of the community. . . . . Society distinguishes clearly enough for all practical purposes between this man and the medical practitioner, and well may be left to seek the aid of one or other as required. . . . . It would be unwise to provide for pharmacists any modified medical education. Let there be no pretence of professional medical treatment mixed up with pharmacy. Let the druggist's recommendation of simple remedies be founded on that knowledge and experience which comes of much pharmaceutical familiarity with remedies, and on that common sense and perception in all that pertains to drugs, with which a properly and specially educated pharmacist may be credited."

In this there is a good deal that is unanswerable. Legislation will never prevent people from asking advice about their ailments from anyone whose counsel they think worth getting; they are as free to consult their druggist as their greengrocer, or anyone else. It is just as natural that the tradesman should recommend his wares, and aid the customer to choose an article suited to his wants. But, as Professor Attfield says, it is so difficult to draw the line. If the chemist is to prescribe simple remedies, he must of course, when the customer's statement of what he needs is imperfect, ask questions to elicit the required information. If he may properly question a sick person as to his symptoms, etc., surely he may use his senses to ascertain the presence or absence of signs of disease; and thus we get to physical examination. And if the chemist does not exceed his duty in examining and treating cases of "simple" disease, what difference can it make whether this be done at his shop or the patient's home? The only safe principle, as it seems to us, is that it is no part of the chemist's duty to prescribe at all. His duty is to prepare, compound, and sell the drugs he is asked for; not to advise upon their utility. Dr. Attfield is not so clear as we should like upon this point; at another part of his address he condemns the chemist who does not know how to test "a fluid excretion for albumen or sugar," and consequently "has driven from his doors the physic-taking patient afflicted with diseases of the albuminoid or saccharine type." To us it seems that testing excretions for albumen or sugar is not the chemist's business. Taking Professor Attfield's own principle as admitted, if albuminuria and diabetes are within his definition of "tiresome minor maladies" requiring simple treatment, we cannot think what would be outside it.

The question of dispensing by medical men seems to us to lie in a nutshell. They do so for two reasons. First, necessity. In many country districts there are no chemists, and hence the doctor must dispense. Second, financial reasons. There are many places in which the people are so poor that they cannot pay an adequate doctor's fee as well as the chemist's profits. The doctor therefore, to make a livelihood, must unite the two functions, and receive the remuneration of each. If chemists want to get all the dispensing in their own hands, they must reduce their charges so that it may cost a medical man no more to send his prescriptions to a chemist to be made up, than it would to keep a dispensing assistant in his own house. And it is almost needless to say that a chemist who wishes medical men to put work in his hands must be careful to keep strictly to his own function.

THE ACCELERATION OF DELIVERY IN PUERPERAL CONVULSIONS.

A RECENT number of the *Archiv für Gynäkologie* contains an article entitled "A Contribution to our Knowledge of Eclampsia," by Dr. Fr. Schauta, assistant in the clinic of Professor Späth, of Vienna. The paper gives statistics based upon the large number of 134,345 labours, among which 344 cases of convulsions occurred. Figures are furnished bearing upon many points in the natural history of this disease, which are of much value, and deserve the attention of specialists. We purpose only, however, here to call the attention of our readers to the important practical point which is indicated in the title of these remarks.

Convulsions coming on during pregnancy quite as often, according to Dr. Schauta, persist during labour, as cease before that process begins. Out of 42 such cases, in 22 the fits continued to occur during labour, while in 20 they abated before its commencement.

The commonly received opinion that convulsions first attacking the patient during labour, commonly cease when delivery is complete, Dr. Schauta finds to a great extent negatived by the facts he has collected. Out of 185 cases in which convulsions came on during labour, in only 62 were they limited to this period, while in 123 they continued after the patient had been delivered, *i.e.*, in 66·5 per cent. In 38 of these the frequency of the attacks post-partum was diminished, but in 50 was increased; in the others there was no particular difference. Dr. Schauta quotes Brummerstädt, who had before him brought out the same fact. Out of 63 cases collected by the latter author, in only 18 did the attacks cease after delivery, in 17 they became less severe, and remained apparently uninfluenced in 28. The figures, therefore, both of Schauta and Brummerstädt seem to show that delivery does not, as a rule, exert a favourable influence upon puerperal convulsions.

The practical point, says Dr. Schauta, which springs out of these figures seems to be this—that in labour complicated with convulsions the accoucheur should not allow himself to be persuaded into operative delivery unless the clearest indications exist, and the necessary conditions are present; and that the *accouchement forcé*, now on other grounds rightly abandoned, should, looking at the prognosis of puerperal eclampsia, be unconditionally condemned. Our author proceeds to test this practical conclusion by analysing the cases according to whether or not labour was artificially completed. Out of the 42 cases of convulsions occurring during pregnancy, 20 were delivered spontaneously, 21 by the help of the accoucheur (one passed from observation undelivered). Of the former, 2 died, or 10 per cent.; of the latter, 19, or 90·4 per cent. This 19, however, includes 5 who were delivered by Cæsarian section after the death of the mother; the subtraction of these reduces the mortality to 87·5 per cent. Of course it will be obvious that the cases in which interference to effect delivery was resorted to, were in all probability the worst cases, and the enormous difference in the result between those left to nature and those artificially delivered is probably for the most part to be accounted for in this way. But admitting this, it is also evident that the

acceleration of labour did not do very much for the patients. The result shown by cases of convulsions coming on during labour is much the same. Out of 185 cases, 53 were delivered by the natural efforts, and of these 14 died, or 26·4 per cent.; while of 132 who were delivered by obstetric aid, 54 died, or 40·9 per cent. With reference to these results we may again quote Dr. Schauta's remarks *verbatim*. He says: "In consequence of what has been said, the charge may readily be imputed to me of wishing to totally condemn all operative interference in puerperal eclampsia. I do not permit myself to draw so sweeping a conclusion from my statistics; but with reference to the sanguine expectations at present in the ascendant as to the effect of delivery in eclampsia, I may point to them as showing how little these hopes are fulfilled by the facts." There are two good reasons, our author points out, for hastening delivery—if we can do so without doing harm. The first is, that by emptying the uterus, the intra-abdominal pressure, which in the large majority of cases is a main cause of the kidney-changes which produce eclampsia, is reduced, and therefore the earlier delivery takes place, the earlier the *restitutio ad normam* may be expected to begin. The second is, that the sooner delivery is effected, the better chance the child has of survival. The risk to the child, as well as to the mother, Dr. Schauta shows, is in proportion to the number of the fits. The prognosis for the child is, as perhaps might be expected, worse when the fits come on before, than when they commence during labour. The infantile mortality among the cases of the former class which Dr. Schauta tabulates was 41·8 per cent.; among those of the latter, 20·5 per cent.

In considering, in the light of these figures, whether in eclampsia delivery ought to be hastened, the question naturally occurs, whether the bad results enumerated may not have been the result of an aggravation of the nervous condition by the operation necessary to effect delivery, *i.e.*, whether operative delivery *per se* has any influence in producing convulsions. Dr. Schauta has, with this point in mind, analysed the cases in which eclampsia appeared after labour. He finds that 74 of these had been naturally delivered, of whom 19 died, or 25·6 per cent.; 8 had been delivered by operative aid, of whom 2 died, or 25 per cent.—a proportion nearly the same.

These figures seem to us of considerable practical moment. It would be going too far to regard the high mortality among those who were delivered by art as due solely to the mere fact of interference. It seems to us largely explained by the consideration that the cases in which this treatment was resorted to were probably the worst; and it may also have been sometimes the case that the state of the patient led the medical attendant to hurry delivery more than he would have done had death seemed less imminent, and in doing so to inflict damage which might have been avoided had less haste been used. If pregnancy has anything to do with the causation of the disease in question—and that it has, we think, there cannot be a doubt,—we might expect that the removal of so powerful a cause would favour recovery. But Dr. Schauta's cases show this—that there is no such immediate advantage as to justify us in running any risk of other dangers for the sake of speedily ending the pregnancy. If labour has begun, or if it has been induced, it is best left to take its course with the minimum of interference. It seems to us still an open question whether labour may not be induced with advantage, provided the process be conducted in a manner as closely as possible approximating to that of nature; but whether induced or at the natural term, such interference as would be called for if there were no convulsions is alone that which is required. Everything further is submitting the patient to unnecessary risk, without any compensating advantage.

THE WEEK.

TOPICS OF THE DAY.

THE fifty-second annual meeting of the British Association for the Advancement of Science was opened at Southampton on Wednesday, August 23. It was not to be expected that this year's meeting would in all respects be so eminently successful as was the jubilee commemoration at York last year, but in reality the numbers attending and the excellence of the addresses and the papers have left little to be desired. The President for the year, Dr. Siemens, delivered an admirable and very interesting address, which may be said, in brief, to have been a plea for greater expansiveness in science, and for more complete co-operation between science and practical skill. He observed—"It is to the man of science who also gives attention to practical questions, and to the practitioner who devotes part of his time to the prosecution of strictly scientific investigations, that we owe the rapid progress of the present day; and the two are merging more and more into one class as pioneers in the domain of nature." The career of Dr. Siemens himself is a very notable illustration of the value and productiveness for good of the combination he advocated.

Dr. Siemens was, as Mr. Spottiswoode observed, in an electrical age, the special representative of electricity, and combined the highest theoretical knowledge of the subject with the widest application of that knowledge to practical purposes. But his address showed that he by no means holds that electricity will supersede gas. "Gas will still," he thinks, "be the poor man's friend," even for lighting purposes, while a great future is probably before it as a fuel. A very able address was given by Dr. Arthur Gamgee, President of the Section of Biology, on the growth of our knowledge of the Function of Secretion.

At a recent meeting of the Liverpool Health Committee, Dr. J. Stopford Taylor, the Medical Officer of Health, presented a report with reference to the spread of typhus fever in Carlton-street, near the Stanley Dock. This street contains a number of narrow courts of back-to-back houses incapable of ventilation, and the thoroughfare is very unhealthy, though running close to the docks and the broad river Mersey. The inhabitants are poor, their houses crowded and dirty, and the atmosphere fœtid—just the conditions in which zymotic diseases spread most rapidly and surely. Occasional outbreaks of infectious fever had been not infrequent in the street, but prompt measures generally stamped them out, as in the first cases this year, which were removed by the sanitary authority on February 24 and March 9. Nothing more was heard of the disease until May 25, when the parish authorities reported the removal of four cases to the workhouse hospital. It was then ascertained that a girl had been ill at one of the houses for some time, and had been freely visited by neighbours, and it was not until three other members of the family had been attacked that she was removed. In June three cases of the fever were removed from the locality, two of which died; and a man who had been working with the last victims on board ship was attacked, and died at his own residence. These cases were evidently the commencement of the outbreak, which in this street had resulted in a total of fifty-nine cases, with ten deaths, from May 25 to the present date. The fever has also spread from Carlton-street to neighbouring thoroughfares, there having been sixteen cases in three adjoining streets, and many others in the vicinity. In reply to the chairman, Dr. Taylor said that, so far this year, the cases of typhus in the city numbered 1203 with 291 deaths, against 1207 cases and 292 deaths during the whole of last year, 256 deaths in 1880, and 248 deaths in 1879. He added that this was the period

of the year when typhus is ordinarily least prevalent in Liverpool, and as the autumn and winter advanced the disease would very probably increase. After some discussion the consideration of the subject was postponed.

The general report of the proceedings of the Conservators of the river Thames, for the year ended December 31 last, has been issued as a Parliamentary paper. From this it appears the Conservators consider that the river above the intakes of the water companies is now practically free from sewage pollution; the sewage works at Oxford, Abingdon, Reading, Windsor, and other places are working in a satisfactory manner. Some cases of sewage contamination, chiefly in the tributaries, have been reported to the Conservators by their inspectors, and in five instances convictions have been obtained and penalties inflicted. In the district between the intakes of the water companies near Kingston, and the western boundary of the metropolis near Chiswick, sewage still passes into the river, the penalties against this pollution of the river being suspended for the present by an Act of Parliament confirming a provisional order granted by the Local Government Board at the instance of the local authorities. The Conservators hope that before September, 1883, the date when this Act of Parliament expires, some scheme may be devised for diverting from the river the sewage of Kingston, Richmond, and other places in the Lower Thames Valley sewage district.

The latest step in the Thirlmere water scheme has just been recorded. After a hearing before Mr. Thomas Huskisson, at the Surveyors' Institution, Westminster, extending over nine days, the proceedings, so far as the evidence was concerned, in the arbitration between the Countess Ossalinsky and the Manchester Corporation, were brought to a termination The Countess Ossalinsky owns 3357 acres of settled and unsettled property around Thirlmere, which is required for the supply of water to Manchester and the towns *en route*; and the Corporation acquired under their Act power to purchase all the land forming the watershed of the lake. The valuers on behalf of the Countess estimated her interest in the property to be worth between seventy and eighty thousand pounds, while the valuers for the Corporation put the amount at about twenty-five thousand, the main difference arising from the valuers of the Countess increasing the present rents, taking the very large number of sixty years as the basis of calculation, and still adding 50 per cent. for compulsory sale; the Corporation valuers basing their estimates upon the present rents, thirty years' purchase, and 50 per cent. for compulsory sale. The award will be made in October.

The outbreak of typhoid fever which has for the last four months been raging in Bangor and its neighbourhood is reported to show no signs of abatement, fresh cases occurring almost daily. The circumstance has proved most serious for the hotel proprietors, and those of the inhabitants who are dependent upon summer visitors for a living, since, very naturally, these latter have kept away from the locality. An additional supply of trained nurses has been obtained, and the appeal for subscriptions to relieve the poorer class of patients is being liberally responded to, Lord Penrhyn contributing £100, and the Bishop fifty guineas. Fortunately the fatal cases are comparatively few. The Medical Officer of Health has, for the second time, condemned the filter beds at the reservoirs, which, he contends, are infected with typhoid germs; meanwhile he recommends that the water should be allowed to pass direct from the river, pending a proposal to take it from Ogwen, or one of the large river lakes. Arrangements are being made for a supply of tent hospitals, which the Bishop, who is co-operating with great zeal with the local authorities, has expressed a readiness to have erected in his park.

The arrangements for the reception of the Social Science Association at Nottingham next month are reported to be now nearly complete. The inaugural address of the President, Mr. G. W. Hastings, M.P., will be delivered in the Mechanics' (large) Hall on the evening of Wednesday, September 20. The presidents of the different departments will deliver addresses in the same hall at ten o'clock on the mornings of the following Thursday, Friday, Saturday, Monday, and Tuesday respectively, and the sectional meetings will take place an hour later on each day in the University College. The concluding meeting will be held in the Mechanics' Hall at noon on Wednesday, the 27th. A full programme of amusements and excursions has also been arranged and promulgated.

The small-pox epidemic at Wednesbury has now continued for six months, and the Medical Officer of Health for the district has recently reported that the disease is increasing in severity. In the past four weeks 100 fresh cases have been recorded, six of which have proved fatal. The sanitary authorities, acting under the advice of the Local Government Board, are providing hospital tents in the suburbs of the town for the reception of forty-eight cases, and these will be ready in a few days for both private and pauper patients. A difficulty has, however, arisen with regard to the latter, the Guardians having repudiated responsibility for them; but common sense would suggest that in the midst of an epidemic it would be better to adopt any means likely to result in public benefit, leaving all petty squabbles to be settled afterwards.

The Metropolitan Board of Works, it is stated, have decided to postpone the enlargement of their sewage reservoirs at Barking Creek and Crossness, which it was proposed to increase in order to prevent the outfall of the London sewage into the Thames on the flood tide. The postponement has been ordered in deference to the Royal Commission now sitting to inquire into the pollution of the river Thames.

Lord and Lady Brabazon have presented the London Ambulance Service with a horse ambulance carriage, to be placed at the Lambeth Police-station for the benefit of persons in that neighbourhood suffering from injury and non-infectious illness. Another carriage, the gift of Mr. J. H. Crossman, will shortly be placed at Stoke Newington Police-station. Subscriptions in aid of the London Ambulance Service will be received by the Honorary Secretary, Mr. A. H. Haggard, London Hospital.

OUR TROOPS IN EGYPT.

THE health of the British troops employed in the Egyptian expedition appears for so far to have been satisfactory. Cases of sunstroke have been frequent, but without causing a high proportion of deaths. The slighter cases of sickness of all sorts are treated in the field-hospitals, while the more serious are sent to the base-hospitals, several of which are in buildings specially selected for the purpose. The water-supply has during the earlier portion of the operations been of fair quality, although, from the presence of chlorides, cases of diarrhœa have been rather numerous. Great economy, however, in expenditure had of course to be enforced. Whether intentionally, or as one of the ordinary incidents of a state of war, the Sweet Water Canal has latterly been fouled by the corpses of Arabs, camels, and horses. This is a very serious difficulty, and the danger from it can be overcome to only a partial extent by condensers and antiseptic filtration. Very heavy dews fall at night, and are a considerable element of danger to men on outpost and

other night duties, particularly after the fatigues of an action or a long march during the day through the burning and deep sand. The attack on General Graham's force on Monday night at Kassassin Lock was the most serious encounter which our troops have yet had; and the death of Surgeon-Major Shaw, of the Army Medical Department, adds another to the already long list of members of the "non-combatant" branch of the Army who have lost their lives on the field of battle. We do not at all desire that the members of our profession in the "Services" should in the slightest degree overshadow their professional position by claims to a military status to which their duties do not entitle them. But they are "soldier-doctors,"—they share the dangers of field and flood encountered all the world over by British troops; and after all the risks and hardships of the march, the camp, and the engagement, their own peculiarly onerous duties in the case of the sick and wounded make further demands upon them. We therefore consider them, as a matter of simple justice, to be entitled to a recognition of their services and position as full and liberal as that which is accorded to their military comrades.

NOTIFICATION OF INFECTIOUS DISEASES.

THERE is one point in connexion with this subject which we think might, and ought, to be attended to at once, and that is, that some means should be adopted by which the hospital authorities in all large towns should communicate with the medical officer of health whenever a case of infectious disease is admitted into one of their wards. In saying this we do not by any means wish to express any opinion upon the question that has lately been discussed with so much keenness at Worcester; this, as it seems to us, stands upon a very different footing, and our remarks cannot be applied directly or indirectly to it. But, as regards the hospitals, those who have worked much in the large London hospitals know only too well the utter futility of expecting any result from advising a patient's friends to make a complaint of any insanitary condition in their homes. Another point that should be borne in mind is, that we might do a great injustice to a landlord by casting a stigma upon his property upon insufficient evidence. We all know that when a child is brought to us suffering from diphtheria we can generally get the mother to admit that she has noticed bad smells about the house for some time past. This would be sufficient ground for making an inquiry; but it should not be sufficient to justify us in telling the mother that her child had got its diphtheria from those bad smells, and authorising her to make complaints about it. Our opinion is, then, that every hospital should report at once every case of infectious disease that is brought within its walls, to the medical officer of health for the district in which the patient resided. In order to facilitate, or indeed to render possible, this proposal, we would suggest that the Local Government Board should supply each of the metropolitan hospitals with a map of London, showing the different districts and their respective medical officers of health, as at present it is a matter of great difficulty to ascertain what are the limits of the different districts. With such a map at hand, and a printed form, leaving only the name and address of the patient and his complaint to be filled in, it seems to us that this proposal could not fail to meet with beneficial results.

THE EPIDEMIC OF TYPHOID FEVER IN PARIS.

IT will be seen from our weekly report on the Paris mortality, that deaths from typhoid fever have greatly increased, as have the admissions into the hospitals for that disease. The number of cases is large, the *Gazette des Hopitaux* observes, but the mortality is only slight, so that in Prof. Lasègue's wards, into which a great number of cases have been brought, for which no "*médications perturbatrices*" were employed, only one death has occurred. In almost all the cases the characteristic eruption has been precocious, abundant, and persistent. The temperature has been rarely excessive, and there have been but few instances of cerebral disturbance, permanent delirium, pulmonary complications, etc.

LACERATION OF THE CERVIX UTERI: EMMET'S OPERATION.

THE July number of the *Edinburgh Medical Journal* contains an article on the above subject, by Dr. Angus Macdonald. The high reputation of Dr. Macdonald, and the scientific character of all his former writings, will make the profession regard his judgment upon this, as upon other unsettled points, as one of great weight, and we therefore turn to the paper with much interest. He says: "experience tends to lead me to the conviction, that at any rate as many women suffer from injuries of the cervix uteri, of a character remediable by surgery, as suffer from similar injuries of the perineum, and that the plastic operation which has as its object the restoration of the cervix uteri to as near as possible its normal condition, is equally as much warranted as the similar operation on the perineum." He only recommends operative interference "when unmistakable symptoms of distress and discomfort present themselves." Dr. Macdonald seems, like Dr. Playfair, to have been converted to these views by the case of a patient whom he had treated without material success, but who subsequently went to America, had her cervix repaired, and got well. We ourselves, as we have before said in these columns, believe that the cases in which laceration of the cervix does harm, or the operation for its repair does any real good, are very few. We examine, therefore, with much interest the nine cases which Dr. Macdonald reports, in which he has himself performed this operation. Two of them were private patients, the rest hospital. Case 1 seems to have been cured. Case 5, the other private patient, was only somewhat improved. Of the seven hospital patients, one was seen a week after she left the hospital: the others were discharged cured, but not seen subsequently, and it is, we suppose, presumed that the absence of symptoms persisted after they returned to their usual avocations. We cannot accept these cases as proving anything. There are many poor women with uterine symptoms who will improve under any treatment which is combined with the rest and other hygienic advantages of a hospital. The question is, how long do they remain well? Dr. Macdonald's first case is the only one of the nine which, to our mind, offers any fair presumption that the operation on the cervix was the cause of the removal of the symptoms.

PROFESSOR V. LANGENBECK'S FAREWELL.

IN the *Berliner Med. Wochenschrift* (No. 32) is given a brief account of Prof. von Langenbeck's farewell lecture. The large operating theatre was beautifully decorated, the laurcled busts of Langenbeck and of the late von Graefe occupying conspicuous places on each side. The raised benches were densely packed with students, while in the area an assemblage of distinguished visitors, as a deputation from the Berlin Medical Society, awaited the arrival of the Professor. He appeared at his usual hour, clad in the simple grey linen which he is in the habit of wearing during his operations, and was visibly somewhat startled at his reception. The whole audience rose while Geheimrath Prof. Bardeleben addressed him—"When last year you celebrated your seventieth birthday, the Medical Society sought your permission to have a marble bust executed and placed here;

but, while consenting to the request, you wisely desired that such a work might be delayed until the time when the resolution to separate yourself from here, so difficult in determination, became a reality. We are, therefore, only able now to ask your permission to provisionally place here to-day the model of the future bust. We hand over this bust as an expression of the love, honour, and high estimation for you which from our innermost heart we entertain. May the noble spirit in which you have always here worked, thought, treated, taught, and helped, also in all the future remain maintained and fertile. God guard and preserve you!" Geheimrath von Langenbeck replied, at first with a trembling voice—"Gentlemen, first let me give my best thanks for the high honour you have again bestowed upon me. I wear to-day my operation-dress, which is far enough removed from any festal garment, and you will have the goodness to excuse it. In it I have passed the best hours of my life, and it is in fact the proper dress for this place. With a heavy heart I separate myself from you to-day, but, thanks to my honoured colleagues of the Medical Society, I leave my likeness behind me. When I, forty-two years ago, entered on the active career of a teacher, surgery was a different thing to what it is now. Proud do I feel that men have gone out from my clinic who were called upon to create another surgery. Some of them have already passed away, as Wagner, Busch, and Hueter, but many more remain and are in full activity. Above all, am I proud that so many of my assistants have reached such high distinctions; and among my present pupils I find a powerful new-growth, which enables me to entertain a sanguine hope that surgery will also be enriched by their aid. I have been constantly the advocate of conservative surgery; and it really appears almost like the irony of my fate, when, at the conclusion of my clinical career, I have to bring before you patients whose necessities compel the execution of just the most mutilating procedures." Three patients were then introduced, upon whom amputation at the hip-joint was performed; and after a few touching words of farewell, and shaking of hands, the assemblage separated.

THE IRISH REGISTRAR-GENERAL'S REPORT FOR THE MARCH QUARTER OF 1882.

ACCORDING to the Report of the Registrar-General for Ireland for the first quarter of the present year, the returns are, on the whole, of a very favourable character. In the 801 registrars' districts during this period 32,686 births and 24,873 deaths were registered, the former being equal to an annual rate of 25·7, and the latter to an annual rate of 19·6 per 1000 of the estimated population. Moreover, the births are in excess of those for the corresponding period of 1881 by 1159, although the birth-rate is below the average of the first quarter of the past five years to the extent of 1·0 per 1000. The deaths are also below those registered in the corresponding quarter of last year to the extent of 3863, and the death-rate is 2·1 per 1000 lower; the mortality has not, in fact, been so low at this period of the year since 1874. In England during the corresponding quarter the birth-rate was 34·4, and the death-rate 21·6 per 1000. The highest county birth-rate recorded for the three months under notice is 30·1 for Antrim, and the lowest 19·9 for Wicklow. Of the intermediate rates the five highest are—Dublin 29·9, Kerry 28·7, Mayo 28·4, Limerick 27·2, and Galway 26·2. Of the 24,873 deaths registered during this period, 3446, or 13·9 per cent., were those of children under one year old; and 9721, or 39·1 per cent., were of persons aged sixty years and upwards. With reference to the zymotic class of diseases the Report remarks that with the exception of the continued prevalence and fatality of measles in Dublin, and small-pox in Belfast and Waterford, there is nothing worthy of special notice. Considerable modifications have been made in the arrangement of the tables attached to this Report, as compared with those issued in former quarters; the tables are now arranged according to the registration provinces, counties, and registrars' districts, instead of into "registration divisions," etc., as formerly. It was found that as the registration divisions did not correspond with any generally recognised geographical division of Ireland, they conveyed but little meaning to the public; whereas the four registration provinces correspond so closely with the geographical provinces that they convey a distinct meaning to persons consulting the tables. Another modification introduced into the tables is the including therein returns concerning the progress of vaccination. Under the Vaccination Acts all children born in Ireland are required to be vaccinated within three months, unless reasonable cause to the contrary can be shown, and the registrars of births are required to keep books recording all particulars on the subject. From these books the returns have now been prepared, and added to the table of births and deaths. The important relation of the state of vaccination to the prevalence of small-pox is, the Report observes, obvious, and hitherto no attempt has been made to compile a complete record of all the vaccinations performed in Ireland. An accurate return of all "public vaccinations" has been annually published by the Local Government Board, and it is with the view of supplementing that return, and reporting more frequently on the state of vaccination, that these new vaccination returns have been added to the quarterly report of births and deaths.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-third week of 1882, terminating August 17, was 1100 (630 males and 470 females), and among these there were from typhoid fever 106, small-pox 8, measles 18, scarlatina 5, pertussis 1, diphtheria and croup 36, dysentery 2, erysipelas 7, and puerperal infections 1. There were also 50 from acute and tubercular meningitis, 187 from phthisis, 13 from acute bronchitis, 45 from pneumonia, 177 from infantile athrepsia (66 of the infants having been wholly or partially suckled), and 37 violent deaths (26 males and 11 females). The number of deaths has increased by 114 since the preceding week, and is higher than that of any of the four preceding weeks. While most of the other epidemic diseases are nearly stationary, the deaths from typhoid fever have increased from 47 to 106, while the number of cases admitted into the hospitals has augmented from 208 to 338. The deaths from infantile athrepsia have also largely increased, viz., from 115 to 177. The births for the week amounted to 1279, viz., 657 males (497 legitimate and 160 illegitimate) and 622 females (472 legitimate and 150 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 59 males (46 legitimate and 13 illegitimate) and 36 females (24 legitimate and 12 illegitimate).

HYSTERO-EPILEPSY IN A BOY.

M. BOURNEVILLE has put on record, in the *Progrès Médical* for August 26, a second case of hystero-epilepsy in a boy. The child was thirteen years of age when he came under observation. The following points in his history seem worthy of note:—His parents were first cousins. His father was subject to migraine in early life; his mother had spasmodic wry-neck in infancy, one of her sisters was idiotic (?). The patient was the eldest child; he seems to have been always an excitable child and easily frightened, subject to night-terrors. His hysterical attacks commenced in the month of February, 1880, about a month before he came under

observation. The first one came on whilst he was at work at school with vertigo, and, after lasting two hours, was terminated by singing, crying, and laughter. The senses of hearing, sight, taste, and smell were decidedly less acute on the left than on the right side, and the same may be said of the common sensibility of his buccal mucous membrane and conjunctiva. His intellectual faculties seemed unimpaired, and he was said to be gentle and affectionate. There was no history of masturbation. On examination, several different areas were found, over which pressure was painful (*zones hystérogènes*). They were situated as follows:—1. "*Clou hystérique*," at a small spot, two centimetres in front of the vertex. 2. "*Rachialgie*," over the spinous processes of the fifth, sixth, and seventh dorsal vertebræ. 3. Symmetrical spots on each side in the fifth intercostal space, midway between the nipple and the axillary line. 4. A painful spot in the seventh left intercostal space, about five centimetres from the spine. 5. A spot over the manubrium sterni. 6. Symmetrical spots over the loins. 7. A spot almost over the centre of the iliac fossæ, corresponding to the "ovarian" region; that on the left side is the most marked. The attacks recurred at regular intervals, and lasted from one to two hours. They were preceded by an aura, which consisted of a sensation of a ball rising from the penis to the epigastrium, and thence to the level of the larynx. This was followed by the "*clou hystérique*," and then he lost consciousness. The attacks were characterised by a preliminary stage of rigidity of unusually short duration, succeeded by a clonic period, which was, on the other hand, of unusual length, comprising varied contortions and passional attitudes. During this period he would try, by different methods, to injure himself or those around him. The attack concluded, he sometimes had hallucinations of sight. He also presented a hemianæsthesia, at one time on the left side, at another on the right. The patient was cured (apparently in a permanent manner) by the assiduous use of cold douche-baths. The case may be noted as a typical one, both of "hystero-epilepsy," and of the way in which the physician's office is magnified in such disorders by our French *confrères*.

THE PARIS MORGUE.

The repulsive exhibition presented by the Morgue at Paris has long been a matter of notoriety. Things were little, if at all, improved by the carbolic irrigations introduced by M. Devergie, but abandoned by his successor, M. Brouardel. In the dissecting-rooms of the German universities, bodies are preserved from decomposition by cold; and M. Brouardel has, with the aid of MM. Carré, Mignon, and Ruart, applied the same agent to those in the Morgue. The freezing apparatus is in principle that so well known by the name of M. Carré, in which cold is produced by the evaporation of previous liquefied gaseous ammonia; but instead of employing this cold for the freezing of water, it is imparted to a solution of calcic chloride, which is not solidified by a temperature of 20° Fahr. This intensely cold liquid is carried by pipes to the roof of the building, whence it flows in cascades over plates arranged somewhat like an inclined Venetian blind, cooling the upper strata of the air, which circulate downwards. The fluid is carried off by a gutter, to be again exposed to the frigorific machine. The temperature of the hall, which contains about 17,660 cubic feet, can thus be easily maintained at freezing-point. Another advantage incident to the employment of calcic chloride is, that from its avidity for water the air is kept in a state of almost complete dryness; whereas in all other forms of irrigation it is saturated with vapour—the absence of humidity greatly conducing to the preservation of the bodies. In an adjoining chamber are fifteen cells or cases, arranged in three superposed rows, for the reception of corpses either already putrid or which it is desired to retain for a longer period than usual. The former are maintained at a temperature of 25° Fahr., the latter at 4° Fahr.; any required degree of cold down to 20° Fahr. being attainable by an appropriate distribution of the pipes carrying the solution. It is found that, when thawed, the bodies which have been subjected to the lesser degree of cold rapidly decompose, but those which have been kept at 20° Fahr., and which have been for weeks of stony hardness, show very little tendency to putrefaction. The original cost of the whole apparatus was not less than £4000, but the expense of maintenance is insignificant (each pound of coal in Carré's machine producing ten to twenty of ice), and consists almost solely of the cost of fuel, the chloride and the ammonia being used and re-used indefinitely. The Morgue has thus been deprived of half its horrors; there is scarcely any perceptible odour, and the bodies remain in the same state as when they were brought in. Obviously the plan is capable of being applied to many other purposes which will suggest themselves.

THE LATE ARTHUR JERMYN LANDON.

The proposed memorial brass to this young medical officer has recently been placed in the Hospital Church of St. Bartholomew-the-Less, and bears the following inscription:

His Former Medical Contemporaries
at St. Bartholomew's Hospital have set up this Tablet
To keep in Memory the bright example of
Arthur Jermyn Landon,
Surgeon Army Medical Department,
who, while continuing to dress the wounded
amid a shower of bullets in the action on Majuba Hill,
was in turn mortally wounded.
His immediate request to his assistants,
"I am dying; do what you can for the wounded,"
was characteristic of his unselfish disposition.
His habitual life was expressed in the simple grandeur of
his death.
He was born at Brentwood, Essex, 29th June, 1851;
died two days after the action,
at Mount Prospect, South Africa, 1st March, 1881.

TYPHOID FEVER IN LIVERPOOL, AND THE NOTIFICATION OF INFECTIOUS DISEASES.

In 1879 the fever death-rate in Liverpool was 248; in 1880 it was 256; in 1881 it was 202; and up to August 24, 1882, it was 291—an increase per annum sufficient to alarm the members of the Health Committee. It will be remembered that last winter an effort was made to render the notification of infectious diseases compulsory in Liverpool; both medical men and householders were to notify under a penalty. The opposition of the medical profession to compulsory notification by the medical attendant was so strong that the attempt to insert such a clause in an Act of Parliament was dropped. The recent outbreak of typhus has so moved several members of the City Council that another attempt is about to be made to insert the objectionable clause in the proposed Act of Parliament. Liverpool is the headquarters and cradle of the young "Association for Opposing Compulsory Registration of Disease by Medical Men," of which Dr. Wm. Carter is President and Secretary; and a meeting of the profession was held at the Medical Institution on the 29th ult., when it was resolved to notify the Health Committee that they disapproved of the compulsory notification of infectious diseases by medical men. Forty-six voted for the resolution, and two against it. A committee was appointed to draw up resolutions to be submitted to a future meeting.

THE FILLET IN BREECH PRESENTATIONS.

Dr. Heinrich v. Weckbecker-Steinefeld, assistant-physician to the lying-in institution at Munich, contributes to a recent number of the *Archiv für Gynäkologie* a paper on the above subject. He points out that there are cases in which some help is required, in which traction by the unaided finger is inefficient, and bringing down a leg difficult and not devoid of danger. The blunt hook cannot be used without much risk of injuring the child; the forceps is apt to slip, and, indeed, can only get a hold by strongly compressing the pelvis. There are therefore cases in which traction by the fillet or loop is called for. The object of the paper, and our reason for quoting it, is to describe a new instrument invented and recommended by Professor Hecker, of Munich, for the purpose of getting the loop into position. It consists of a blunt hook having a very obtuse curve, somewhat that of a bladder-sound, and hollow from end to end. In this travels a steel spring, like that of Belloeq's instrument for plugging the nares. The tape (or strip of whatever material is preferred as a means of traction) is provided with a little pocket at one end, into which the extremity of the blunt hook fits. It is thus carried by the hook up on the outer side of the hip-joint, and over the fold of the groin. The spring running inside the hook is then pushed forward, made to protrude from the end of the hook, and of course carry before it the pocket on the end of the strip of tape. The elasticity of the spring makes it curl round the thigh, and then, of course, the end of the tape can be seized and drawn downwards, and an efficient means of traction is thus secured. The author gives an account of twelve cases in which this means of delivery was used. As the chief objection commonly urged against it is the risk of injury to the fœtus, we quote the results from this point of view. Four times deep pressure-marks were found; twice superficial excoriations. In one case a fracture of the humerus was produced in drawing down the arm, and twice fracture of the femur—in one case made in an unsuccessful attempt to bring down a foot, in the other during extraction by the loop. No maternal bad result was noticed, except in one case rupture of the perineum during extraction of the shoulders.

In the action at Kassassin Lock the only officer killed on our side was one of the so-called *non-combatant* officers. Surgeon-Major Shaw, of the Army Medical Department, who was in command of the Bearer Company, was killed on the field: one more proof—though none are needed—of the fact that the Medical Service has, to put it mildly, no immunity from the perils of war. As our contemporary the *Times* observes, "these officers are as much exposed in their path of duty as those who have better opportunities for reaping the rewards of war."

H.R.H. the Duke of Albany has again been laid aside for a while by an attack of the malady to which he has always been liable. This time the attack has been so severe as to cause, though not for long, considerable anxiety. The latest reports are, however, decidedly better; and it may be expected that with the help of rest and sea-air the Duke will ere long regain fully his usual health and strength.

At a meeting of the Governors of the Margate Royal Sea-Bathing Infirmary, held on Monday this week, Sir Erasmus Wilson handed over to the chairman the key of the new wing of the Infirmary. This magnificent addition to the bed-power and health-inducements and sanitary appliances of the Infirmary has been supplied by Sir Erasmus at a cost of over £20,000, and will, we are glad to hear, be known as the Erasmus Wilson Wing.

The account of the receipts and expenditure of the Corporation of the City of London for the financial year are just published, from which it appears that the expense of the *conversazione* to the International Medical Congress, last year, amounted to £2000. The sanitary expenses of the Port of London were £2506.

The late Marquis of Conyngham left, amongst other bequests, legacies of £200 each to his "friend and medical attendant," Mr. Edgecombe Venning, F.R.C.S., and to his late resident medical attendant, Dr. Robert Hippesley Cox.

THE PHYSIOLOGY OF SECRETION.

Professor Gamgee, as President for this year of the Biological Section of the British Medical Association, chose as the subject of his opening address, "The Growth of our Knowledge of the Function of Secretion." Having alluded to the loss biology has sustained by the deaths of Darwin and Francis Maitland Balfour, and having given a brief sketch of Mr. Balfour's life and published works, he launched into the proper subject of his address, and traced the history of secretion from the earliest records to the present time.

Many of his hearers must have been surprised to find of how recent acquisition has been our knowledge of elementary facts with which medical students are now familiar. But hasty generalisation, imperfect observation, and attempts to square anatomy with theory, had spread so great a cloud of error over the whole subject, that all real advance in our knowledge of it is comprised within the last fifty years. While from the earliest period when man began to study his own conformation it must have been known that certain organs of the body were concerned in the separation from it of excrementitious substances, not only was the mode of separation unknown, but even doubts were entertained as to the organs concerned in it. Thus, Hippocrates even questions whether the brain be a gland or a viscus; and two thousand years later Wharton formulates the inquiry, "Num cerebrum ad glandularum numerum vel viscerum accedat?" Galen and others regarded glands as sieves or colanders, which served to strain off from the blood excrementitious matter; but the liver and kidneys were excluded from the group of glands, and were classed as viscera. The pancreas, lachrymal, and salivary glands were considered by Wharton to be eliminators of excrementitious substances from the nervous system. Malpighi (1665) believed glands to be ultimately composed of acini—an acinus being, according to his view, a secreting nodule which discharged by efferent ducts the proper secretion, derived in the first instance from the blood contained in minute arteries supplied to the gland.

The "colander" theory of glandular action seemed to obtain its fullest confirmation when Ruysch (1696) observed that fluid injected into the arteries of a gland frequently escaped by the ducts of the gland or into neighbouring tissues. He adopted therefore the view previously set forth by King (1666), that glands consist of nothing but vessels and connective tissue, and have no follicles interposed between their arteries and excretory ducts. Haller (1760) adopted this view, and, in combating the opinions of Malpighi, wrote—"Quare fluidos per folliculos percolari, rei ipsi, et naturæ sapientiæ repugnat!" Secretion by percolation having been thus anatomically explained, the difference in secreted fluids was accounted for by the modifications of the pressure and velocity of the blood-flow through the gland, arising from the size and mode of distribution, etc., of the vessels.

More correct views on the anatomy of glands were published by Ferrein (1749) and Schumlansky (1780) respecting the kidneys, by Mascagni and Cruikshank about the mammary gland, and by E. H. Weber (1827) about the salivary glands and pancreas. But still the general opinion as to secretion was that it was the result of percolation from the bloodvessels of preformed material, either directly, according to the followers of Ruysch, or through acini, according to the Malpighian theory.

Then in 1830 came Joh. Müller's great work "De Glandularum Secernentium Structurâ Penitiori," in which he taught that it was not the bloodvessels which secreted, but the walls of the closed glandular spaces on which the bloodvessels ramified. Basing his opinions upon careful study of the anatomy and development of glands, Müller concluded that glands with ducts were really only involutions more or less complex of a membrane, great extent of surface with small expenditure of space being thus obtained; that secretion was the result of the action of the living substance clothing this surface; that acini, whether regarded as secreting granules, or as congeries of tubules connecting the red bloodvessels with the excretory duct, had no existence; and that differences in the secreted substances depended not on the structure of the glands or on their blood-supply, but on peculiar vital properties of this living substance.

When the cell doctrine of Schwann had become generally adopted, it was no great advance to differentiate this "living substance" of Müller into its constituent units, the secreting cells; but such as it was, Professor Gamgee claims it for his own teacher, Goodsir. In the *Philosophical Transactions* for 1842 were published Bowman's investigations on the structure of the kidney, the wonderful accuracy of which must command the admiration of every reader who thinks of what the microscopical appliances of that time were, while his conclusions as to the function of the several parts of the gland have been largely confirmed by later experiments. The chief contribution to our knowledge of secretion generally in this publication was Bowman's description of the structure intervening between the secreting cells and the blood capillaries, from which the materials of secretion are primarily obtained. To this Bowman gave the name of "basement membrane," which has since been shown to form part of a lymphatic system, which everywhere intervenes between epithelial cells and blood capillaries, except in the ultimate air vesicles of the lungs, and in the glomeruli of Malpighian bodies of the kidney.

The discoveries of Carl Ludwig finally refuted the "percolation" theory of secretion. In 1851 he announced the fact that the secretion of the salivary glands is under the influence of the nervous system, and by experiments, performed in conjunction with his pupil Rahn, demonstrated that secretion occurs on direct stimulation of glandular nerves, even when the circulation has been arrested for a time. Ludwig's manometric experiments still further demonstrated the independence of salivary secretion with regard to arterial pressure. In his first recorded experiment the mean pressure of blood in the carotid artery amounted to 108·5 millimetres of mercury, while during stimulation of the nerve filaments going to the submaxillary gland the pressure in the manometer, inserted in Wharton's duct, rose to between 190·7 and 196·5 millimetres. Again, in 1857, Ludwig, with his pupil Spiess, proved that heat is evolved during the process of secretion, the saliva from the submaxillary gland being sometimes as much as 1·5° Cent. higher in temperature than the blood going to the gland—a fact for which percolation could not in any way account.

Continued investigation of the innervation of the salivary glands by Bernard and Eckhardt led to the discovery that these glands receive their nerve-supply by two channels, stimulation of each of which produces very different results. Thus, in the case of the submaxillary gland, stimulation of the chorda tympani nerve causes dilatation of the bloodvessels, and greatly increased blood-supply in the gland, accompanied by an abundant watery secretion; while stimulation of the sympathetic nerve induces constriction of the bloodvessels, and a scanty, extremely viscid secretion. Any revival of the "percolation" theory which these facts would seem to favour was prevented by Heuchel's discovery that atropia distinguishes two sets of fibres in the chorda tympani nerve—one controlling the blood-supply of the gland, and not affected by this alkaloid; the other controlling the secreting cells, and paralysed by the alkaloid. So that stimulation of the chorda tympani nerve after injection of atropia results in greatly increased vascularity of the gland, without any secretion—an additional proof of the independence of secretion with regard to blood-pressure.

Direct continuity of nerve-fibres with the secreting cells, though probably existing in all glands, has as yet been only indisputably demonstrated in the œsophageal glands of the *Blatta orientalis*, or common cockroach, by Kupffer. Although normally these secreting cells are controlled by nervous influence, the so-called "paralytic" secretion of the submaxillary gland, observed by Bernard after section of all the nerves going to the gland, would seem to indicate that the nerve-control only brings the action of the cells into harmony with the requirements of the body, and is not the cause of that action.

These morphological units, the secreting cells, have been shown by Klein to possess a complex structure of an intracellular and intra-nuclear network, the meshes of which are filled with protoplasm and the other constituents of the cell body. Again Heidenhain, Langley, and others have discovered that these cells exhibit differences corresponding to varied states of functional activity. Thus during "rest" the cell would seem to be converting its protoplasm into paraplasm, while during "action" the paraplasm is changed into the specific constituent of the secretion and discharged, while the remaining protoplasm grows again by appropriating and assimilating materials from the lymph, which is at this time poured forth more abundantly from the increased blood-supply. In no case does mere mechanical percolation occur. Even in the glomeruli of the kidney, where Bowman, Ludwig, and others thought that water was mechanically filtered off, Heidenhain has shown that the delicate epithelial cells which cover the vessels of the glomeruli are probably the agents in the process.

Secretion is, then, the result of the action of those epithelial cells whose function was not long ago so little known that it was suggested that they might possibly form a sort of holiday garb for the gland in its unemployed state. Each cell is, as it were, an independent organism, dependent for its nutrition on due blood-supply, appropriating material from its immediate surroundings, and thus affecting its less immediate surroundings, assimilating this material, and so being capable of growth, development, and maintenance—in its action evolving heat and CO_2, and transforming energy, but having its action regulated and harmonised to the needs of the whole system by nervous control.

FROM ABROAD.

The Paris Hospital Mortality Returns.

The reports on this subject, which have been addressed for so many years to the Paris Hospital Medical Society by Dr. Ernest Besnier, and which, as our readers must be aware from the abstracts of them that we have regularly prepared, were full of instruction and philosophical generalisation, have come to an end, as he has resigned his office as reporter. His successor, Dr. Castel, commences his task (*Union Médicale*, June 11 and 25, and July 9) with the first quarter of the present year, which was remarkable for its persistent elevation of temperature, the mean of which for the three months was 5·4° C. (41·5° Fahr.), or a degree Centigrade above the mean of the corresponding quarter during a series of sixty years, viz., 4·4° C. This increase of the mean of the quarter was especially due to the exceptional heat of March, which was 2·9° above the normal mean, being a mean for March of 9·3°, while the mean for January was 2·3°, and that for February 4·6°. The height of rainfall was considerably less than that of the mean of the quarter, viz., 73 millimetres instead of 108. The barometric pressure was very high, viz., a mean of 762 millimetres in place of the normal mean of 755. The atmospheric humidity was great throughout the quarter.

The *general mortality* of the quarter attained unusual proportions; but the increase in the number of deaths for the quarter cannot be exclusively attributed to the unhealthy character of the season. The ill-at-ease population of Paris, and consequently its hospital population, is increasing daily in considerable proportions, and the Assistance Publique, unable to provide new hospitals, seeks to make up for the insufficiency of those which exist by opening provisional services, and by the accommodation of numerous extra beds in the ordinary services. These measures modify in notable proportions the number of beds in each hospital, and the mortality oscillates with the constantly varying hospital population. But, allowing for the oscillations which administrative measures may bring about in the number of patients treated in the hospitals, still the morbidity and mortality of

this first quarter remains considerable. The total of deaths at the hospitals and hospices during the quarter amounted to 4599, as contrasted with 4415 deaths in the same quarter of 1881, or an increase of 184.

1. *Affections of the Respiratory Organs.*—There were 1931 cases of phthisis, with 1091 deaths (56·5 per cent.); 872 of pneumonia, with 300 deaths (34 per cent.); 1267 of acute bronchitis, with 74 deaths (5·8 per cent.); 398 of chronic bronchitis, with 34 deaths (8·5 per cent.); and 424 of pleurisy, with 56 deaths (13 per cent.). The number of affections of the respiratory organs treated in the hospitals was much greater than that of the same quarter of 1881. The pleurisies and pneumonias were most numerous in March, while their gravity was greatest in January; and bronchites were both most frequent and most fatal in February. The inflammatory affections of the lungs did not, moreover, run a simple course (*allure franche*), their symptoms being ill characterised, and their progress irregular, as is often observed during epidemics of influenza. This irregular course of pulmonary affections was not peculiar to Paris. It has been noted by many provincial practitioners, and especially by Prof. Leudet, of Rouen. "He also," says Dr. Castel, "has signalised a fact which had already attracted our attention, namely, the frequency of granular phthisis during the first quarter of 1882. Placed at the head of a service, which, by its mode of recruital, brings to it a large number of cases of phthisis, we were struck by the considerable number of cases of granular phthisis and pneumonic phthisis of rapid course. But while Prof. Leudet seems to have especially met with cases of secondary granular phthisis, it was cases of acute and primary galloping phthisis that we had occasion to observe. At the present time, when the parasitic nature of tuberculosis is the order of the day, it is perhaps not without interest to bring into notice the frequency of these acute forms of the disease—forms which appear the most susceptible of being regarded as infectious—at the same time when most virulent and epidemic affections underwent a marked recrudescence."

2. *Diphtheria.*—This continues its onward march, the number of deaths for the quarter (795) being much in excess of those for the same quarter of the two preceding years (514 and 543). This disease, by its constant increase, has become a source of anxiety for the public health and a true scourge. The number of deaths, however, on adding up the figures given for the quarter, really amounts to 747 in place of 795, and in the same quarter of the five preceding years there were 728 deaths in 1877, 703 in 1878, 529 in 1879, 514 in 1880, and 543 in 1881. In the hospitals there were admitted during the quarter 362 cases of diphtheria and croup, and of this number 271 (74 per cent.) died.

3. *Eruptive Fevers.*—During the quarter there were 409 admissions for variola, with 76 deaths (18 per cent.); 217 admissions for measles, with 25 deaths (11 per cent.); 146 admissions for scarlatina, with 17 deaths (11 per cent.); and 334 admissions for erysipelas, with 37 deaths (11 per cent.). Measles, and especially erysipelas, underwent considerable exacerbation, the cases being very numerous; but measles was usually of a benign character, and its mortality has not been relatively high. Owing to imperfect isolation many children contracted measles within the wards of the hospitals while there for other diseases. At the Hopital des Enfants Malades 19 cases with 3 deaths were thus produced.

Small-pox.—Cases of small-pox, subjected to the law of seasonary evolution established by Dr. Besnier, were much more numerous during this first quarter of 1882 than during the last quarter of 1881; but, in spite of this exacerbation, the multi-annual curve of the disease has yielded, so that the cases are both less frequent and less fatal than they were during the first quarter of 1881. The percentage mortality has declined from 24 to 18. The number of deaths for this quarter for the whole of Paris amounted to 164, while that of the same quarter in 1880 was 798, and that of 1881 was 356.

4. *Typhoid Fever.*—The statistics of Paris and of the hospitals show that there has been a notable diminution of this disease during the quarter, as compared with the same quarter in 1881. Thus the deaths in entire Paris were 416 in place of 740, while the admissions into the hospitals descended from 1288 to 848. The percentage of deaths also diminished from 24 to 23. In spite of this improvement, however, the number of deaths from this cause continues far higher than it was before the exacerbation which took place in 1879. The deaths from typhoid in Paris for this first quarter during the last ten years were as follows:—240 in 1873, 142 in 1874, 183 in 1875, 216 in 1876, 361 in 1877, 177 in 1878, 319 in 1879, 744 in 1880, 740 in 1881, and 416 in 1882. During the first quarter of 1881 there were received into the hospitals 1288 cases, with 315 deaths (24 per cent.), and during 1882 there were admitted 848 cases, with 200 deaths (23 per cent.).

REVIEWS.

Lectures on the Science and Art of Sanitary Plumbing. By J. Stevens Hellyer. London: Batsford, High Holborn. 1882. 8vo; pp. 332.

Mr. Hellyer is well known by his other published works as one who has done much to raise a handicraft to the rank of an applied science; and as a member of one of the largest firms of plumbers in this country, he writes with authority derived from a practical familiarity with every detail of this important branch of sanitary engineering. The lectures in the volume before us were delivered under the auspices of the National Health Society, before mixed audiences, but in which every grade of the trade was represented. The language is plain and humorous, and more likely to fix the attention of working-men than it would have been if more studied.

The first lecture is merely introductory; and the second, dealing with the art of making joints and bends, the several kinds of solder, etc., scarcely comes within the scope of our paper. But the remainder of the course is rich in suggestions which, as the outcome of long practical experience, deserve the careful attention of architects and sanitarians in general. For instance, a certain class of amateurs, having seen the evils of defective traps, have proposed to do away with traps altogether, under the impression that only pure air will gain entrance through the open waste-pipe. Mr. Hellyer strenuously opposes this idea, showing that not only will foul air be drawn in when (as in the Mansergh trap) the waste-pipe opens below or just above the grate of the gully, but that the fouling of the interior of the waste-pipe itself contaminates the air, which he has shown experimentally will enter by a two-inch scullery sink-pipe at the rate of 820 lineal feet per hour. Mr. Norman Shaw's untrapped closets, in which an open hopper takes the place of a continuation of the soil-pipe to the roof, he condemns in the strongest terms, on account of the proximity of the opening to windows and the feeble circulation of air in short pipes, as well as the reasons already given. Stacks of trapless closets, even with soil-pipes reaching the roof, are still more reprehensible, since these will act indiscriminately as upcast or downcast shafts, and foul air will enter the house whenever the handle of a water-closet is raised.

In the larger and more luxurious class of houses, where a number of water-closets, baths, and lavatories are in connexion with a common soil-pipe, Mr. Hellyer very properly insists on the ventilation of the branches by a smaller (one and a half to two inch) pipe communicating with each branch at a point on the outer side of the trap, and entering the soil-pipe somewhere above the highest of such branches. If this be neglected a discharge of water through one of the branches will inevitably unsiphon all the other traps. So general is the ignorance of this fact, though deducible from the well-known law that fluids press equally in all directions, that even the model arrangement depicted in Mr. Pridgin Teale's otherwise excellent work is open to this objection.

The partiality of plumbers to the D trap is founded on the fact that it alone cannot be unsiphoned, but this is inseparable from another, viz., that by no flush can its contents be completely cleared out. Mr. Hellyer has devised a substitute, the V dip, or Anti-D trap, which is free from the defects of the D, and perhaps better adapted to water-closets than the S or syphon trap.

Our author condemns, without excepting even the Mansergh, all traps that are not self-cleansing, save only for street gulleys, where coarse detritus has to be arrested; and describes some excellent sewer or drain interceptors of his own design.

For water-closets he recommends the valve closets where expense is no consideration; but for general use prefers the simplest and really cheap "flush out" kinds—as the Vortex, Artisan, Bostel, etc. We need not say that he denounces

the "pan closet" with container and D trap. But few persons know that after ten or a dozen years' use, two or more pounds of hardened excrement may be scraped from the inner surface of the container, and six or eight from that of the D trap! Another evil of the latter not generally known is that the dip pipe may be corroded in places, so that the water-seal ceases to close the way to sewer-gases.

Mr. Hellyer is in favour of much smaller soil-pipes than are usually employed, finding a calibre of three and a half to four inches to answer as well as, or better than, a larger, even for a stack of three or more water-closets, and he calls attention to the necessity of instant flushing after the passage of urine, the solids of which rapidly choke up any pipe, in this resembling grease, and being far more difficult to deal with than fæcal matters. He gives several useful hints on the prevalent mistakes as regards connexion and trapping made in fixing ranges of lavatory basins or other fittings, and lays down a code of rules to be observed in house plumbing, which might well be incorporated into the by-laws of local boards.

So important a part does the plumber's work play in the sanitary condition of a house, that it ought to be placed under the supervision of the district surveyor (as is the law in some cities of America), as much as, we might almost say more than, the construction of the drains themselves.

We have noticed only those features of this book which strike us as comparatively new, or at least among "things not generally known" or duly insisted on, but every page reflects the character of the author as at once scientific and practical—not an amateur or one who gets his technical maxims at second hand; and the numerous illustrations add greatly to the value of the work. The author's irrepressible habit of punning is at times wearisome to the reader, though perhaps it was useful in securing the attention of an audience unaccustomed to grave and formal lectures.

OBITUARY.

CHARLES MOREHEAD, M.D. Edin., F.R.C.P. Lond., F.R.S.E., C.E.I.

Dr. Charles Morehead, late of the Bombay Medical Service, who died suddenly, at Wilton Castle, Redcar, Yorkshire, on August 24, aged seventy-five years, was the son of the late Rev. Robert Morehead, D.D., Rector of Easington, Yorkshire. He was born in 1807, and entered the Bombay Medical Service in April, 1829, as an Assistant-Surgeon. From 1835 to 1838 he was on the staff of Sir Robert Grant, Governor of Bombay, having in the former year been elected President of the Medical and Physical Society of Bombay, which position he held until 1839. On the death of Sir Robert Grant in 1838, he was appointed Surgeon in the European and Native General Hospitals, and in 1845 became the first Principal and Professor of Medicine in the Grant Medical College at Bombay, established to give the natives of Western India the benefits of a professional medical training. From 1840 to 1845 he was also Secretary to the Board of Native Education, and was a zealous promoter of every scheme tending to advance the cause of native education. He continued as Principal of the Grant Medical College, and Surgeon of the Jamsetjee Jejeebhoy Hospital till 1859, in September of which year he took sick furlough to Europe; and finally retired from the Bombay Medical Service on June 30, 1862. He became Surgeon-Major in January, 1860, and on September 6, 1861, was appointed an Honorary Surgeon to the Queen. He was an M.D. of the University of Edinburgh, and a Fellow of the Royal Society of that city. In 1860 he was elected to the Fellowship of the Royal College of Physicians of London; and in 1881 his services in the cause of Indian education were acknowledged by his being created a Companion of the Order of the Indian Empire. He was the author of various works treating of the diseases of Europeans in India, and on the practice of medicine in that country. In 1843 he married Harriet Anne, daughter of the Ven. George Barnes, D.D., first Archdeacon of Bombay, the founder of the Bombay Education Society.

Royal College of Surgeons.—The Library and Museum of this institution will be closed for one month from this date (Friday). The former will be reopened on Monday, October 2; the latter (now undergoing entire repainting, etc.) probably at the end of that month.

REPORTS OF SOCIETIES.

CAMBRIDGE MEDICAL SOCIETY.

Friday, August 4.

Professor Humphry, M.D., F.R.S., President, in the Chair.

Hæmorrhage into the Arachnoid Cavity.

Dr. Bacon brought forward a case of hæmorrhage into the arachnoid cavity in the person of a female eighty-seven years of age, and exhibited the specimen. The patient was suffering from senile dementia, but was quiet and apparently in good health. One day she became faint, and was helped to a sofa, but had no fall or injury. She became rapidly unconscious, and was at once seen by the medical officer. She never recovered consciousness, had contracted pupils, and died thirty hours afterwards. *Post-mortem.*—The brain weighed forty-one to forty-two ounces. Over the left hemisphere of the brain, on removing the dura mater, was found a layer of coagulated blood, in a semi-organised condition. There was a similar layer, of currant-jelly appearance, over the left half of base of skull and extending over the right orbital plate. The cerebrum itself was apparently healthy, and the ventricles contained only a small amount of serum. No ruptured vessel could be discovered, and there was no fracture of the skull, or sign of external injury. Dr. Bacon considered that there had been a former hæmorrhage, and that the recent one had proved fatal in accordance with the symptoms related. He mentioned the following cases in connexion with the subject, as illustrative:—In vol. x. of the *Journal of Mental Science* (1865), Dr. J. W. Ogle, of St. George's Hospital, London, published two cases of arachnoid cysts, occurring in general paralysis, one of which cases was contributed by Dr. Bacon (page 532), and remarks on the comparative rarity of such cases. In vol. xi. of the same journal will be found an interesting paper on the same subject by Dr. S. Wilks, of Guy's Hospital. Dr. Wilks there approves the theory propounded by Mr. P. Hewett in vol. xxviii. of the *Medico-Chirurgical Transactions*, that these cysts proceed from a "chronic change in a previously effused blood," but in all the cases he gives the symptoms were of some duration. Dr. Paget had seen a case of a similar nature, in which the symptoms lasted a few days.

Gall-Stones Discharged through an Abscess in the Right Groin.

Mr. Wherry related a case of gall-stones discharged through an abscess in the right groin. It occurred in a woman, under his care, who had an obscure swelling in the right inguinal region: an exploratory puncture discovered pus too thick to flow through the canula, but a free incision let out thick pus and over a hundred gall-stones. The finger passed into the wound in the direction of the gall-bladder; a large drainage-tube was then tied in the opening, through which gall-stones still pass. There was no bile, and no fæcal odour. The patient had a remarkable history. She was for several years subject to attacks like ague. One year ago she first noticed in the right side of the abdomen a swelling, which enlarged painlessly until it could not be spanned by her hand; her bowels were regular, and she had no jaundice. Two months later the swelling appeared, from her description, to burst inside her, and she was immediately seized with violent cramp-like pains in the right lumbar and iliac regions. The swelling diminished, and she had now attacks of vomiting of dark fluid every five minutes for five days, and during this time she ate nothing; but when the vomiting ceased she had a ravenous appetite, and was able to walk about. Altogether she had five similar attacks of vomiting, lasting from three to five days each, followed by several weeks of health.

Mr. Wherry mentioned a case of three fistulæ from the gall-bladder which led respectively to the duodenum, colon, and skin. A biliary fistula has been known to communicate through the open urachus with the urinary bladder. Gall-stones are reported to have been found in the right bronchus and in the portal vein. Cases of biliary fistulæ opening externally are said by Murchison to occur usually in women, and to be caused by gall-stones, and even when connected with cancer, either worms or gall-stones are also found. In reply to Professor Humphry and Dr. Paget, Mr. Wherry

said that he thought there must have been an abscess near the fundus of the gall-bladder into which the gall-stones were discharged after adhesions in the neighbourhood: that as there was no jaundice and no pain the inflammation was limited to the gall-bladder and cystic duct. No bile came through the external wound, and the patient had a prospect of complete recovery. Columbus mentions that in the case of St. Ignatius Loyola a gall-stone was found in the portal vein, and an undoubted case has been recorded lately.

Dr. Paget mentioned the case of a lady he had seen some years ago in a desperate state of illness, when there was great pain and tension of abdomen; and when an incision was made, no less than 160 gall-stones escaped, though not all at once. In this case the patient recovered and lived for years. He referred also to another case, in which the patient passed a big stone, but died from cancer of the liver.

Recovery from Traumatic Tetanus.

Mr. Shield related the case of a lad who had recently been treated in the hospital for tetanus, and recovered, as follows:—A healthy country lad, aged seventeen, was admitted on May 30. He was suffering from an extensive lacerated, contused wound on the flexor aspect of the left forearm, the result of the explosion of a gun. From June 23 to July 12 the symptoms were very severe, marked opisthotonos was observed, and the patient got rather emaciated. On July 10, the twenty-third day of the disease, it was on the wane. Gradually the spasms grew less severe, the bowels acted naturally, and the appetite improved, while the patient was walking about the ward, with his wound nearly healed, and all tetanic symptoms were gone. Throughout the whole case the temperature was, for the most part, above normal, presenting curious diurnal variations, while on several occasions it reached the height of 104° to 105°. The pulse was quick and weak, and varied slightly with the temperature. The tonic spasmodic condition of the muscles did not relax during sleep; the muscles of the eyeball and tongue were not affected. The superficial muscles were extensively disintegrated, the radial artery was torn away, but the main nerves had escaped injury, and the ulnar artery was intact. The wound was treated by poultices and carbolised oil, and all went well until June 17, when symptoms of tetanus set in, with slight stiffness about the muscles of the jaws and of the neck. On June 19 these symptoms had become more pronounced, well-marked trismus was present, with epigastric pain. By June 23 the disease was fully developed; severe spasms especially of the muscles of the back were constantly present, the tongue was foul, the breath offensive, the bowels were constipated, and the pulse quick, while the temperature was high and the urine scanty and high-coloured. Excessive sweating was also present, so that an eczematous condition of the cutaneous surface was produced. The onset of the disease, therefore, occupied about five days. The treatment adopted depended chiefly upon feeding and nursing. Plenty of good milk and eggs, with port wine and brandy, were frequently administered both by day and night, and fortunately swallowed and retained by the patient. Hypodermic injections of morphia were administered every evening, when the anguish was severe, and caused relief and some snatches of sleep. The bowels were relieved by enemata, and during their peristaltic action the patient seemed to have his sufferings increased, but after the evacuation the pains were alleviated. He smoked tobacco twice, and this gave him some relief from the accumulation of mucus in the fauces.

Professor Humphry had seen a great many cases of tetanus, and had arrived at certain conclusions respecting it. First, that it is a passing malady depending, probably, like small-pox, scarlet fever, and others, upon some blood-poisoning; like them, being amenable to no known curative treatment, but running a certain course and subsiding, provided it did not kill the patient in its course; that, like them, it is fatal in proportion to the acuteness and severity of its onset. Of the rapidly progressing cases very few survive, whereas in those which come on more tardily, and more particularly in those in which the patient continues to be able to take food, a favourable result may, by good management, not unfrequently be obtained. Secondly, that the disease is attended with much wasting and exhaustion, sometimes with high temperature, and that the most important feature in treatment is to give nourishment, which must generally be in a fluid form—milk, eggs, beef-tea, wine, etc.—as much as the patient can take. While food can be swallowed there is hope. It must be urged upon the patient, who is often reluctant to take it; and no other treatment should be allowed to interfere with this. Sedatives, such as morphia hypodermically injected, tobacco, and others, come in as adjuncts in the more severe cases, but are better abstained from unless the case is severe; and reliance should be placed solely on the feeding, with attention to the bowels, it being commonly necessary to give aperients. The worst case he had known to recover was that of an infant in whom the removal of a considerable tumour from the back of the neck was followed by tetanus. The spasms were so frequent and so severe that on several occasions the child was thought to be dead; and in this case, as in others he had observed, the seizures were most severe after a very prolonged interval, as after sleep. Still, the child swallowed milk. The milk was sedulously given, no other treatment being allowed, except subjecting the child to the fumes of tobacco smoked by persons near it, which was thought to do some good; and in other cases he had found tobacco, smoked or administered in a mild form, to have a soothing effect. He had kept patients persistently under the influence of chloroform, without any benefit. The maintenance of strength by nourishment, so as to enable the patient to tide over the attack, is the great thing to be aimed at.

Cystic Disease of the Chorion.

Dr. Ingle exhibited a specimen of cystic disease of the chorion. The fœtus in this case was probably eight weeks old, though stated to be five months. There was considerable hæmorrhage between the expulsion of the fœtus and that of the placenta. Dr. Ingle observed that in such cases the diseased state of the chorion may cause the death of the fœtus, though the ovum may be retained for some time longer. The special feature in this case was the abrupt termination of the cord at the amnion; while at another point of this membrane the vessels passed through to the chorion, and this point seemed to be the spot where the placenta originated.

Dr. Grove said that in a case, under his care, of threatened abortion for some ten days, there had been a sudden expulsion of a placental mass of this character, accompanied with great loss of blood. He also mentioned another case in which the fœtal movements had ceased about the fifth month, but the patient had not been delivered till the ninth month, when the fœtus was shrivelled, but the placenta was apparently healthy.

MEDICAL NEWS.

University of London.—The following are the names of the candidates who have passed the recent Honours Examinations:—

Intermediate Examination in Medicine.

Anatomy.

First Class.—George Elliott Caldwell Anderson (Exhibition and Gold Medal), Guy's Hospital; Charles Barclay Innes (Gold Medal), St. Bartholomew's Hospital; Henry Robert Woolbert, University College.

Second Class.—Henry Betham Robinson, St. Thomas's Hospital; James Harry Ernest Brock, University College.

Third Class.—Percy Flemming, University College; John Walter Carr, University College; William Ivens Buswell Watson, Guy's Hospital; Henry Charles Evans Cooper, Guy's Hospital.

Materia Medica and Pharmaceutical Chemistry.

First Class.—John Walter Carr (Exhibition and Gold Medal), University College; Charles Barclay Innes, St. Bartholomew's Hospital, and Henry Robert Woolbert, University College, *equal*; Percy Flemming, University College.

Second Class.—Philip Percival Whitcombe, St. Mary's Hospital.

Third Class.—James Harry Ernest Brock, University College; William Speed Hayman, King's College, and Reginald Maurice Henry Randell, Guy's Hospital, *equal*.

Organic Chemistry.

First Class.—Charles Barclay Innes (Exhibition and Gold Medal), St. Bartholomew's Hospital; Charles Stuart Spong,(a) B.Sc., Guy's Hospital; Upendra Krishna Dutt,(a) B.Sc., St. Mary's Hospital; George Elliott Caldwell Anderson, Guy's Hospital.

Second Class.—John Elliott, B.Sc., Owens College and St. Bartholomew's Hospital; James Harry Ernest Brock, University College.

Physiology and Histology.

Third Class.—George Elliott Caldwell Anderson, Guy's Hospital; Frank Tratman, Bristol Medical School; John James Dean Vernon, Guy's Hospital; Henry Charles Evans Cooper, Guy's Hospital, and Reginald

(a) Obtained the number of marks qualifying for a medal.

Maurice Henry Randell, Guy's Hospital, *equal;* Charles Stuart Spong, Guy's Hospital; William Henry Bowes, Guy's Hospital.

INTERMEDIATE SCIENCE AND PRELIMINARY M.B. CONJOINTLY.

INORGANIC CHEMISTRY.

First Class.—Daniel Evan Jones (Int. Sc.), [Exhibition,] University College of Wales; Douglas John Carnegie(b) (Prel. Sci.), Epsom College, and Harold Seward(b) (Int. Sc.), Balliol College, Oxford, *equal.*

Third Class.—Hermann Henry Hoffert (Int. Sc.), Royal School of Mines and private study, and John Joseph Redfern (Prel. Sci.), Queen's College, Belfast, *equal;* Arthur Edward Brown (Prel. Sci.), private tuition and University College; William Page May (Prel. Sci.), University College; Charles Wright Meanwell (Int. Sc.), private study; Elizabeth Fanny Toone (Int. Sc.), Bedford College, London; Reginald William Phillips (Int. Sc.), St. John's College, Cambridge; Herbert Evelyn Crook (Prel. Sci.), Guy's Hospital.

EXPERIMENTAL PHYSICS.

First Class.—Hermann Henry Hoffert (Int. Sc.), [Arnott Medal,] Royal School of Mines and private study.

Second Class.—Edwin Austin Rigby (Int. Sc.), Stonyhurst and Owens Colleges; Henry Richard Norris (Int. Sc.), University College; Arthur Edward Brown (Prel. Sci.), private tuition and University College; Edith Aitken (Int. Sc.), Girton College, Cambridge; Thomas Dawe (Int. Sc.), private study; James Clark (Int. Sc.), University of Edinburgh and private study; Douglas John Carnegie (Prel. Sci.), Epsom College.

Third Class.—John Joseph Redfern (Prel. Sci.), Queen's College, Belfast; Richard Haliburton Adie (Int. Sc.), London International College; Elizabeth Fanny Toone (Int. Sc.), Bedford College, London; Henry John Macevoy (Prel. Sci.), St. Joseph's College, Clapham; Harold Seward (Int. Sc.), Balliol College, Oxford; Cecilia Marian Pole (Int. Sc.), Bedford College, London; Arthur William Martleet (Int. Sc.), Royal College of Science, Dublin, and Hartley Inst.).

BOTANY.

First Class.—Francis Wall Oliver (Int. Sc.), [Exhibition,] University College; Wilson Henry Fox(b) (Int. Sc.), University College; Edith Aitken (Int. Sc.), Girton College, Cambridge.

Second Class.—Isabel Clare Evans (Prel. Sci.), Mason College, Birmingham; Jagadish Chunder Basu (Prel. Sci.), Christ's College, Cambridge, and Arthur Edward Brown (Prel. Sci.), private tuition and University College, *equal;* William Henry Wilson Elliot (Prel. Sci.), Guy's Hospital.

Third Class.—Charles Percival Crouch (Prel. Sci.), St. Bartholomew's Hospital; Richard Spalding Wray (Prel. Sci.), Yorkshire and Elmfield Colleges; Douglas John Carnegie (Prel. Sci.), Epsom College.

ZOOLOGY.

First Class.—Henry Percy Dean (Prel. Sci.), University College.

Second Class.—Wilson Henry Fox (Int. Sc.), University College; William Page May (Prel. Sci.), University College; Charles Frederic Marshall (Prel. Sci.), Owens College.

Third Class.—Edward Austin Rigby (Int. Sc.), Stonyhurst and Owens Colleges; James Edwin Thompson (Prel. Sci.), Owens College; Nathan Charles Haring (Prel. Sci.), Owens College.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on August 24:

Maye, John, Kingsbridge, Devon.
White, Thomas Harry, Silver-street, Lincoln.
Wilson, Mervyn Seppings, Birchington-road, Kilburn.
Worthington, Sidney, Enfield, Middlesex.
Young, Charles Stewart, Royal Infirmary, Glasgow.

The following gentleman also on the same day passed his Primary Professional Examination:—

Louden, John E., King's College.

At the recent examination for the prizes in Materia Medica and Pharmaceutical Chemistry, given annually to medical students by the Society of Apothecaries, the successful candidates were:—1st. John Barker Smith, of St. Thomas's Hospital, the Gold Medal; 2nd. Thomas Henry Williams, of the Middlesex Hospital, the Silver Medal and Books.

BIRTHS.

BROKE-SMITH.—On August 27, at 2, Lipson-terrace, Plymouth, the wife of P. Broke-Smith, M.D., Brigade-Surgeon A.M.D., of a son.

CHITTENDEN.—On August 20, at Prestbu House, Lee, the wife of Charles Chittenden, L.R.C.P., of a son.

GROSS.—On August 26, at St. Saviour's Infirmary, Westmoreland-road, Walworth, the wife of Charles Gross, L.R.C.P., M.R.C.S., of a daughter.

LAWTON.—On August 22, at High-street, Poole, the wife of Herbert A. Lawton, L.R.C.P., M.R.C.S., of a son.

LORD.—On August 26, at Wilton House, Landport-terrace, Southsea, the wife of Frederick Lord, L.R.C.P., L.R.C.S., of a son.

O'DONNELL.—On August 18, at 30, Darlington-street, Wigan, Lancashire, the wife of William O'Donnell, L.R.C.S., of a daughter.

MARRIAGES.

DRUMMOND—WILSON.—On August 24, at Devonport, James Drummond, M.D., of South Shields, to Charlotte, daughter of the late William Wilson, Esq., of Wimborne Minster.

FERGUSON—ROSTRON.—On August 23, at Cheadle, Hulme, John Ferguson, L.R.C.P., of Stockport-road, Manchester, to Emily, daughter of R. H. Rostron, Esq., of The Ramilies, Cheadle, Hulme.

JACKMAN—RADCLYFFE.—On August 28, at Camden-square, William Thomas Jackman, M.R.C.S., L.S.A., of Coggeshall, Essex, to Edith, daughter of the late Edward Radclyffe, Esq., of 22, Camden-street.

TWEEDY—MEREDITH.—On August 26, at Dublin, Henry Colpoys Tweedy, M.D., son of Henry Tweedy, M.D., of Rutland-square, Dublin, to Alice Maud, daughter of the late Thomas James Meredith, Captain 90th Light Infantry, of Clooamahon, Callooney.

DEATHS.

BANNISTER, ALFRED JAMES, M.D., of 11, Addison-terrace, Notting Hill, at Great Malvern, on August 22, aged 48.

BENSLEY, CATHERINE, wife of Surgeon-Major E. C. Bensley, H.M. Army, at 3, Strathmore-gardens, Kensington, on June 20, in her 37th year.

CORNEY, ORLANDO PRIDHAM, son of Bolton Glanvill Corney, M.R.C.S., Government Medical Officer, Fiji, at Suva, Fiji, on June 25, in his 8th year.

DOLTON, WILLIAM BLUCHER, M.D., at 39, Lee-road, Blackheath, on August 19, aged 68.

GARDNER, JAMES, M.R.C.P., M.R.C.S., L.S.A., at Bungay, Norfolk, on August 22, aged 65.

MCCULLOCH, MARY ELLISON LAFONE, wife of James Murray McCulloch, M.D., of Dumfries, at Hereford, on August 4, aged 71.

MORENO, CHARLES, M.D., F.R.C.P., C.I.E., late Bombay Medical Service, at Wilton Castle, Redcar, Yorkshire, on August 24, aged 75.

MURE, MILORED, daughter of John Mure, M.D., Hon. Inspector-General of Hospitals (retired), at 10, Walpole-street, Sloane-square, S.W., on August 24.

O'BRIEN, HILDA OLIVIA KATHLEEN, daughter of Surgeon-Major T. M. O'Brien, Army Medical Department, at Sangor, Central Provinces, India, on July 7.

PERKS, WINIFRED GILBERT LIVESAY, wife of E. R. Perks, M.R.C.S., at St. George's-square, Portsea, on August 25.

ROBERTSON, WILLIAM, M.D., F.R.S.E., at 28, Albany-street, Edinburgh, on August 25, in his 65th year.

SLADE, HENRY, M.R.C.S., Royal Navy (retired), at Bodmin, on August 18 aged 57.

TICEHURST, W. D. T., Surgeon-Major, late of the Bombay Army, at 31, High-street, Lewes, on August 25, aged 50.

TOMES, GEORGE ARTHUR, son of Arthur Tomes, Surgeon I.M.D., at Midnapore, Bengal, on July 19, in his 2nd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon and Registrar. Candidates must be registered Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, be thoroughly conversant with the use of the microscope, and unmarried. The honorarium is 75 guineas per annum with board and residence. Applications, with testimonials, to be addressed to the Chairman of the Weekly Board, 167, Piccadilly, W., on or before September 2.

HORTON INFIRMARY, BANBURY.—Resident House-Surgeon and Dispenser. Salary to commence at £60 with board and lodgings. Candidates must be registered and unmarried. Testimonials and references to be sent to Mr. H. C. Davids, 18, Marlborough-road, Banbury, on or before Sept. 2.

MORPETH DISPENSARY.—House-Surgeon. Salary £130 per annum, with furnished house. Candidates must be doubly qualified and registered. Applications, with testimonials, to be sent to D. F. Wilson, Secretary, from whom further particulars may be had, on or before September 4.

NORTHAMPTON GENERAL INFIRMARY.—Physician. (*For particulars see Advertisement.*)

PROVIDENT SURGICAL APPLIANCE SOCIETY.—Surgeon. Candidates must be experienced. Attendance for two hours morning and evening. Applications to the Secretary, 23, Finsbury-circus, E.C.

ROYAL UNITED HOSPITAL, BATH.—House-Surgeon. (*For particulars see Advertisement.*)

SHEFFIELD SCHOOL OF MEDICINE.—Demonstrator of Anatomy and Physiology. (*For particulars see Advertisement.*)

ST. GEORGE, HANOVER-SQUARE, PROVIDENT DISPENSARY, MOUNT-STREET.—Resident Medical Officer. The salary last year £214 4s. 8d. Candidates must be doubly qualified, duly registered under the Medical Act, about thirty years of age, and unmarried. Applications, with testimonials and references, to be sent to G. W. Leah, jun., 73, Park-street, W. (from whom all further information can be obtained), not later than September 30.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Dore Union.—Mr. David Evans has resigned the Madley District: area 20,563; population 2936; salary £70 per annum.

Kidderminster Union.—The Bewdley District is vacant by the death of Mr. Cecil Webster: area 8208; population 5346; salary £100 per annum.

West Bromwich Union.—Mr. John Burgess Welch has resigned the Parish of Handsworth: area 7680; population 24,252; salary £60 per annum.

APPOINTMENTS.

Birnet Union.—Henry J. Penny, L.R.C.S. Ire., L.K.&Q.C.P. Ire., to the Third District.

Bethnal Green Parish.—Alfred E. Schmidt, L.R.C.P. Edin., L.S.A., to the Third District.

Cockermouth Union.—Harrison Mitchell, M.D., M.C. Edin., to the First Cockermouth District and the Workhouse.

Hackney Union.—John Cornelius Garman, L.R.C.P., L.R.C.S. and L.M. Edin., and L.S.A., to the Workhouse.

(b) Obtained the number of marks qualifying for the

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 26, 1882.

BIRTHS.

Births of Boys, 1303; Girls, 1248; Total, 2554.
Corrected weekly average in the 10 years 1872-81, 2556·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	755	646	1401
Weekly average of the ten years 1872-81, corrected to increased population ...	783·6	711·0	1494·6
Deaths of people aged 80 and upwards			35

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	8	3	1	5	...	1	1	28
North ...	905847	1	4	9	5	9	1	4	...	37
Central ...	282238	...	4	2	4	2	...	..	...	12
East	692738	...	4	14	3	10	...	3	...	36
South	1265927	...	12	8	5	14	...	6	...	45
Total	3816483	1	27	33	18	40	1	14	1	158

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·472 in.
Mean temperature	57·0°
Highest point of thermometer	73·1°
Lowest point of thermometer	47·8°
Mean dew-point temperature	53·2°
General direction of wind	W. S.W.
Whole amount of rain in the week	0·44 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Aug. 26, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Aug. 26.	Deaths Registered during the week ending Aug. 26.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2554	1401	18·8	73·1	47·8	57·0	13·89	0·44	1·12
Brighton	109595	64	41	19·5	69·0	48·3	57·5	14·17	0·97	2·46
Portsmouth ...	129916	83	54	21·7	...	...	...	...	...	...
Norwich	88821	62	36	21·2	...	...	...	...	...	...
Plymouth	74449	44	39	27·3	69·4	50·8	57·8	13·89	0·74	1·88
Bristol	210134	123	66	16·4	64·4	50·5	55·3	12·95	1·22	3·10
Wolverhampton ...	106756	73	46	31·3	65·2	44·2	53·1	11·73	0·99	2·51
Birmingham ...	408532	279	231	29·5	...	...	...	...	...	...
Leicester	126275	94	52	21·5	...	...	...	...	...	...
Nottingham ...	193573	149	103	28·6	68·7	44·7	54·8	12·67	0·61	1·55
Derby	83587	53	22	13·7	...	...	...	...	...	...
Birkenhead ...	86582	63	52	19·3	...	...	...	...	...	...
Liverpool	560377	375	307	28·6	...	...	...	...	...	...
Bolton	106767	77	46	23·9	62·4	45·3	52·2	11·22	2·71	6·88
Manchester ...	342211	226	191	29·3	...	...	...	...	...	...
Salford	184004	127	113	32·0	...	...	...	...	...	...
Oldham	115572	75	6	27·1	...	...	...	...	...	...
Blackburn	106460	72	48	23·5	...	...	...	...	...	...
Preston	97656	63	52	27·8	...	...	...	...	...	...
Huddersfield ...	83418	44	40	25·0	...	...	...	...	...	...
Halifax	74713	57	26	18·2	...	...	...	...	...	...
Bradford	200158	129	87	24·7	67·2	49·0	54·8	12·67	0·49	1·24
Leeds	315998	202	174	28·7	68·0	49·3	55·4	13·00	0·51	1·30
Sheffield	230516	201	123	22·1	68·0	46·0	54·6	12·53	0·64	1·63
Hull	158814	81	105	34·5	...	...	...	...	...	...
Sunderland ...	119065	89	63	27·6	76·0	45·0	57·4	14·11	1·90	4·83
Newcastle	147826	110	81	28·6	...	...	...	...	...	...
Cardiff	83724	61	35	21·1	...	...	...	...	...	...
For 28 towns ...	8469571	5670	3880	22·7	76·0	44·2	55·4	13·00	1·02	2·59
Edinburgh	232140	134	72	16·2	67·4	47·1	55·6	13·12	0·28	0·71
Glasgow	514048	364	194	19·7	65·6	47·0	55·9	13·28	0·42	1·07
Dublin	345293	183	159	23·8	64·4	46·7	54·8	12·67	0·60	1·52

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·47 in. The highest reading was 29·85 in. on Sunday morning, and the lowest 29·10 in. on Wednesday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** We have been asked to publish the following list of subscribers to the Memorial Brass to Surgeon A. J. Landon, A.M.D. :—

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Dr. G. O. Elliott, Dominica, West Indies.—Letter, with enclosure, received.

A Provincial Student.—The College of Surgeons has long since abolished registration, both in the metropolitan and provincial schools. Write to Mr. Miller, at the office of registration, Oxford-street, who will give you the desired information.

Milk Prosecutions.—Certain persons in Dundee, it seems, were desirous of criminally prosecuting their milkmen, on the ground that their milk was somewhat wanting in richness, though, as certified by the Principal of the Laboratory of the Inland Board, it was merely genuine milk of poor quality. To the Procurator-Fiscal's request for an opinion on the liability of the Dundee milkmen to criminal proceedings on these grounds, the official of the Board replied that the Act, as he understood it, "was intended to insure the supply of such an article as milk in a genuine state, and that no penalty was incurred for a sale of milk in the state in which it was yielded by a cow in a healthy condition, under the usual changes of food and season."

Hove.—The Town Commissioners have just decided to carry out various alterations in the sewage system suggested in the report of Sir James Bazalgette to the Brighton Town Council, at an estimated cost of £2180.

Professional Titles.—An old correspondent suggests that as the Calendar of the Royal College of Surgeons is about to go to press it would be a graceful act on the part of the authorities were they to place the well-won honours after their name, or a distinguishing mark of those who have obtained collegiate prizes—Victoria Cross, M.P.'s, F.R.S., academical distinctions—as graduates in medicine.

A Convalescent Hospital, Bolton.—After a lapse of twelve years the establishment of a convalescent hospital for Bolton appears to be assured. In 1870 £20,000 was left to certain trustees for the erection and furnishing of a hospital, and an additional sum of £10,000 to be invested for providing an income for its maintenance, the condition being annexed to the will that a site in any part of the Bolton Union area should be secured within three years of the testator's decease. In 1872 a site for the proposed hospital was given, the land being situated at Bromley Cross, Tuston. A scheme for the establishment was drawn up and submitted by the trustees to the Charity Commissioners, who have lately signified their approval of it.

"First Aid": Admiralty Order.—Instructions received from the Admiralty direct the medical officers of the dockyards to give periodical lectures weekly on the subject of rendering efficient aid to injured workpeople in the dockyards. The lectures are to be specially addressed to the members of the police force at the several yards, who are to attend when required, with the view of being instructed how to act when called upon to render aid to persons injured.

A Good Opening.—A correspondent, writing from Puget Sound to the editor of the *Times*, of which place he gives a glowing description, says that professional services are rewarded richly. "I know of one young doctor who had the good luck to cure a grievous case of diphtheria soon after his arrival. He won a reputation instantly, and cleared $100,000 in eight years' practice."

In Memoriam Fountain.—A fountain has been opened in Lincoln's-inn-fields in memory of the late Mr. Philip Twells, M.P. Several members of the family were present, and the opening ceremony was performed by Mrs. Twells. The cost is estimated at about £1000.

Police-Surgeon and Officer of Health, Dundee.—The Police Commission has resolved that the vacant offices of Police-Surgeon and Medical Officer of Health, held by the late Dr. Pirie, should be disjoined, and that they should be advertised. It was also resolved that the respective salaries should be £135 and £75.

Imitations of Coffee.—In the new Customs and Inland Revenue Act of this year, the sale of imitations of coffee and of coffee-mixtures is made subject to certain conditions, one of which is that the packets are to contain an exact number of quarters of a pound, and another is that a label shall be affixed to each packet, denoting the proper names of the substances of which the mixture is composed. The penalty for infringing the Act is forfeiture of the article and a fine of £20. But it is declared that the Act is not to affect any statute relating to adulteration of food. Restrictions and penalties imposed on the manufacturers and dealers in these articles by the statutes of 1803 and 1860 are abolished.

Abstainer.—According to Mr. Paget's recent decision, a coffee-tavern does not come within the Licensing Acts or Refreshment-house Act, and therefore it may be open all night and all Sunday; in fact, these places of refreshment may be open at all hours of the week.

Denbigh.—The health of the town is exceptionally good. Only six deaths have occurred in five weeks. A disinfecting chamber is to be erected.

Faithfully Obeying his Wish.—The funeral of Dr. Jones, Plas Heo, a medical practitioner, well known in Anglesey, took place recently. He had directed his interment in the garden attached to his house. The direction was faithfully obeyed, and the body was deposited in a brick grave constructed on a spot indicated by him in the garden. A Nonconformist minister officiated.

Workmen's Dwellings.—The Industrial Dwellings Company has been in successful operation nineteen years. Twenty thousand persons are housed in its buildings in and around London. The average rent of the rooms is 2s. a week.

D. D., Bucks.—It is noteworthy that not a single case of prosecution for refusing information has occurred in connexion with the taking of the Census of 1881. Old prejudices against these returns, and especially with that section of it which dealt with the ages of the fair sex, apparently no longer exist. How far the returns are on this point trustworthy may be a question.

The Fever Epidemic at Accrington.—Under the new Private Improvement Act now in operation, medical men in the borough are compelled to report all cases of infectious disease to the local authority. Two who have hitherto failed to comply with the requirements of the Corporation now make the necessary reports.

Liquor Items.—Since 1867, according to official returns, the quantity of spirits held in bond has steadily increased, until it is now nearly four and a half times greater than it was in the latter year. The quantity at present in the United Kingdom is considerably more than forty-nine millions of proof gallons. The recent Bills brought into Parliament for compelling spirits to remain at least one year in bond were, it would appear, somewhat superfluous.——Illicit distillation seems especially to be largely on the increase in Ireland, unless the facts which justify the inference arise from greater vigilance of late by the Revenue officers. In the official year 1880-81, 700 detections were made. In the year 1881-82 the number rose to 800.——Chiefly with regard to illicit distillation, extensive Excise prosecutions have recently been heard before the Lambeth police magistrates, involving heavy penalties for various breaches of the excise laws. One defendant, who was lately fined £230 for carrying on this contraband trade, was, in addition, now amerced in £700, or four months' imprisonment; another was fined £500, or four months' imprisonment; while on two defendants, who did not appear, penalties were imposed of £700 and £100 respectively, and warrants were issued for their committal.——In the report, just issued, of the Commissioners o Inland Revenue on the new beer duty, a deficiency of revenue is shown on their previous estimate, in respect to which they observe that the deficiency appears to have been due to a falling off in the consumption of beer, notwithstanding the increase in the population. This, they think, may be accounted for in several ways, but principally by the improved habits of the people.——Temperance principles seem to be influencing certain classes of the population largely; the past year having been, apparently, one of unusual progress in this direction. This movement has been greatly encouraged and promoted by the erection of coffee-taverns. The success of such enterprises must sensibly, it is seen, lessen the consumption of alcoholic drinks. The manufacture of temperance drinks has also been exceedingly brisk, and an unprecedented number of them have been publicly advertised.

COMMUNICATIONS have been received from—

The Local Government Board, London; Mr. Ashton Warner, London; Dr. Bacon, Fulbourn, Cambridge; Dr. McBaine, Edinburgh; The Registrar of the Apothecaries' Hall, London; Mr. J. Chatto, London; Mr. George Meadows, Hastings; The Registrar-General, Edinburgh; Mr. T. M. Stone, London; Mr. de Castro, London; The Secretary of the Nineteenth Century Building Society, London.

BOOKS, ETC., RECEIVED—

Infant Feeding in Relation to Infant Mortality, etc., by Henry Ashby, M.D.—Cold and their Consequences, by J. Dreschfeld, M.D., M.R.C.P.—Annual Report of the Transactions of the Medical and Chirurgical Faculty of the State of Maryland—Report on the Sanitary Condition of the Wandsworth District during the Year 1881—Remarks on Cattle Plague Vaccination, by Dr. C. Pigeon—Annual Report of the Crichton Royal Institution and Southern Counties Asylum, Dumfries—On Animal Vaccination and the Origin of Vaccine, by C. E. Drysdale, M.D.—The Life and Work of St. Paul, by F. W. Farrar, D.D., part viii.—Report of the Rational Dress Society for the Year ending July 31, 1882—The Social Science Association, by J. L. Clifford-Smith—St. Thomas's Hospital Reports, new series, vol. xiii.—Electro-Diagnosis, by A. Hughes Bennett, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Louisville Medical News—Medical Chronicle—Ophthalmic Review—Australian Medical Gazette—Philadelphia Medical Times—Physician and Surgeon—Revista d'Hygiène—Medical Register—Morninnside Mirror—Revista de Medicina—New York Banker and Broker—Fort Wayne Journal of the Medical Sciences—National Anti-Compulsory Vaccinator Reporter—Boy's Own Paper—Girl's Own Paper—Sunday at Home—Leisure Hour—Friendly Greetings—Maryland Medical Journal Medical News—Ciencias Medicas—Detroit Lancet.

APPOINTMENTS FOR THE WEEK.

September 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

4. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

6. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

8. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

Testimonials.—Mr. George M'Kay, who has been recently appointed from the Sanitary Department of Glasgow to the sanitary inspectorship for the burgh of Govan, has been presented by the officers of that Department with a handsome marble timepiece, bearing a suitable inscription. Dr. Russell, the Medical Officer of Health, made the presentation, and spoke in eulogistic terms of Mr. M'Kay's nineteen years' connexion with the Department.——Mr. Thomas Southee, who recently resigned his position as Secretary to the Kent and Canterbury Hospital (which office he had held for upwards of fifty years), and on his retirement was voted a superannuation allowance, was presented a few days since, by his personal friends and others interested in the Hospital, with £230, subscribed in appreciation of the ability with which he had discharged his duties for that lengthened period. The list of subscribers included the names of H.R.H. the Duke of Edinburgh, the members for East Kent, and most of the noblemen and gentry belonging to the county.

THE STUDENTS' NUMBER

OF THE

MEDICAL TIMES AND GAZETTE

FOR

1882-83.

IN accordance with old-established custom and undeniable convenience, this number of the *Medical Times and Gazette* is for the most part specially devoted to the supply of needful information to parents, guardians, and intending medical students old enough to judge for themselves as to what course they must pursue in seeking to enter the medical profession. It is not often, however, that such inquirers are left entirely to such guidance. Everyone knows, or his friends know, some medical practitioner who is, as a rule, most willing to give aid and assistance where often it is really needed; for very many circumstances which cannot here be indicated enter into the questions to be determined, with regard to an intending student of medicine. Foremost amongst these is the selection of a school, which, however, is often practically determined by convenience, or even by the question of fees; but the amount of money to be paid is not in reality the most important point to be settled. Large fees no more predicate good teaching and training than a smaller sum means that the teaching is wholly bad. More important than fees—in many cases, at least—is the character of the school for industry or idleness, for expensive or economical (which does not of necessity imply slovenly) habits; in short, what constitutes the whole tone of a school. For the character of a medical school is only less important than that which pervades a public school, after which parents so anxiously inquire. Matters of this kind cannot be discussed in books, papers, or advertisements, though in certain respects they are even more important in a medical than in a public school, In the former the students are only kept in restraint during a few hours in the day, whereas in the latter the supervision is more or less constant.

In seeking the advice of medical men, however, the inquirer must never forget that there is a strong *esprit de corps* among the different schools, and that for the most part every man thinks his own the best. This spirit we should be the last to condemn, were it not that it arises in a way which is hardly creditable to the various hospital and school authorities themselves. Such things as allied hospital sports, cricket and football clubs, and so on, are now gradually breaking down the walls of separation which formerly existed between different schools, and which were on purpose kept up by making all schools self-sufficing, and still more by the positive discouragement even now given to students passing from one school to another.

We purpose, therefore, to lay before our readers as fully as possible the materials whereby they may arrive at a sound judgment for themselves, aided or unaided, as to what is necessary to be done by the intending student, where the knowledge demanded of the pupil at his qualifying examinations may be obtained, and at what cost. Moreover, as in the meantime the requirements of the various qualifying bodies as regards attendance on classes, etc., differ among themselves, we have given, as fully as need be, the various rules and regulations enforced by each of these.

I.—PRELIMINARY EDUCATION.

REGISTRATION AS A MEDICAL STUDENT.

IT is universally conceded that the establishment and enforcement of an examination in matters of ordinary education has done much to raise the status of the medical practitioner. It has especially tended to elevate him above the dull level which he formerly occupied, and to raise him in the social scale. Moreover, it has at once choked off (if we may use the expression) a great number of men obviously unfitted for the profession at the very commencement of their would-be career, and induced them to turn their attention to other occupations better suited to the bent of their genius. All are agreed, we repeat, as to the utility of this examination, but all are not of the same mind as to its scope and purport. In these utilitarian days the test of all things is, too often, Will it pay? And to this end many would have the future medical practitioner trained up, so to speak, from his very cradle, with a view to his ultimate destination in life. How often such intentions are frustrated we need hardly say; and it is a terrible thing to contemplate a mind cramped and confined in a single groove through life. Rather we would seek in preliminary education what will give breadth and power to the character and intellect in the shape of that tincture of letters which is useful to all men, and to none more than to the medical practitioner. The General Medical Council have duly provided for this by insisting that every examination which they will recognise shall comprehend the following subjects:—1. English Language, including grammar and composition.(a) 2. English History. 3. Modern Geography. 4. Latin, including translation from the original and grammar. 5. Elements of Mathematics, comprising—(α) Arithmetic, including vulgar and decimal fractions; (β) Algebra, including simple equations; (γ) Geometry, including the first two books of Euclid, or the subjects thereof. 6. Elementary Mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics.(b) 7. One of the following optional subjects:—(α) Greek, (β) French, (γ) German, (δ) Italian, (ε) any other modern language, (ζ) Logic, (η) Botany, (θ) Elementary Chemistry.

(a) The General Medical Council will not consider any examination in English language sufficient that does not fully test the ability of the candidate 1) to write sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; 2) to write correctly from dictation; 3) to explain the grammatical construction of sentences; (4) to point out the grammatical errors in sentences ungrammatically composed, and to explain their nature; and 5) to give the derivation and definition of English words in common use.

(b) This subject may be passed either as preliminary, or before or at the First Professional Examination.

Some bodies specially insist on Greek; and care should be taken to comply with this demand, if possible, at the time of the Preliminary Examination, even when it is possible to postpone it to a later season, which in all probability will be found not to be so convenient.

We would specially impress on all who seek to attain to the higher grades of the profession—to take a degree in Arts, if possible, before entering on their strictly professional studies; and this can be done nowadays at Cambridge much more easily than would be supposed. At all events, whether attained with ease or not, a degree in Arts gives a stamp to a man which is of unspeakable value to him in after life.

Two examining bodies disregard the possession of a degree in Arts. Thus, the University of London will only accept its own Matriculation Examination, whilst the Royal College of Physicians include in their examination for the membership questions in Greek, Latin, French, and German. Otherwise there is an increasing tendency to accept the certificates of any respectable institution whose examinations comprehend the subjects insisted on by the General Medical Council. This body now accepts the *testamur* of any one of the following certificates about to be enumerated; and generally speaking, what is accepted by the Medical Council will be accepted elsewhere, with the exceptions above mentioned. The Royal College of Surgeons of England, who formerly held an examination in preliminary education of their own, have now abandoned the plan, and expect all those seeking its diploma to come provided with a certificate of competency in the various subjects deemed necessary by the Medical Council. The following is the list of bodies whose testimonials of proficiency are received and acknowledged by the Medical Council:—

EXAMINING BODIES WHOSE EXAMINATIONS FULFIL THE CONDITIONS OF THE MEDICAL COUNCIL AS REGARDS PRELIMINARY EDUCATION.

I.—*Universities in the United Kingdom.*

Oxford.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Senior Local Examinations, certificate to include Latin and Mathematics; Responsions; Moderations; Examination for a degree in Arts.

Cambridge.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including the elements of statics and hydrostatics. Senior Local Examinations, certificate to include Latin and Mathematics; Higher Local Examinations; Previous Examination; Examination for a degree in Arts.

Durham.—Junior Local Examinations, certificate to include Latin and Mathematics, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy, including mechanics, hydrostatics, and pneumatics. Senior Local Examinations, certificate to include Latin and Mathematics; Registration Examination for medical students; Examination for students at the end of their first year; Examination for a degree in Arts.

London.—Matriculation Examination; Preliminary Scientific M.B. Examination; Examination for a degree in Arts or Science.

Edinburgh.—Local Examinations (Junior certificate, certificate to include English Literature, Arithmetic, Algebra, Geometry, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Local Examinations (Senior certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Science or Medicine and Surgery; Examination for a degree in Arts.

Aberdeen.—Local Examinations (Honours certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

Glasgow.—Local Examinations (Senior certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

St. Andrews.—Local Examinations (Honours certificate), certificate to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects:—Greek, French, German, Natural Philosophy; Preliminary Examination for graduation in Medicine or Surgery; Examination for a degree in Arts.

Dublin.—Public Entrance Examination; Examination for a degree in Arts.

Royal University in Ireland.—Local Examinations for Men and Women, certificate to include all the subjects required by the General Medical Council as set forth in Recommendation 4; Entrance or Matriculation Examination; Previous Examination for B.A. degree; Examination for a degree in Arts.

Oxford and Cambridge Schools' Examination Board.(c)—Certificate to include—Arithmetic (including vulgar and decimal fractions), Algebra (including simple equations), Geometry (including the first two books of Euclid), Latin (including translation and grammar), also one of these optional subjects:—Greek, French, German, mechanical division of Natural Philosophy.

II.—*Other Bodies named in Schedule A to the Medical Act.*

Apothecaries' Society of London.—Examination in Arts.

Royal College of Physicians and Surgeons, Edinburgh.—Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined.

Faculty of Physicians and Surgeons of Glasgow.—Preliminary Examination in General Education.

Royal College of Surgeons in Ireland.—Preliminary Examination; certificate to include Mathematics.

Apothecaries' Hall of Ireland.—Preliminary Examination in General Education.

III.—*Examining Bodies in the United Kingdom not included in Schedule (A) to the Medical Act* 1858.

College of Preceptors.—Examination for a First or Second Class Certificate, provided that, in the case of the latter, the candidate has passed in the First or Second Division, and has taken Algebra, Euclid, Latin, and a modern language.

Examiners for Commissions and Appointments in Her Majesty's Service, Military, Naval, and Civil.—Certificate, including all the subjects required by the Council's 4th Recommendation.

IV.—*Indian, Colonial, and Foreign Universities and Colleges.*

Universities of Calcutta, Madras, and Bombay.—Entrance Examination; certificate to include Latin.

Universities of M'Gill College, Montreal; Bishop's College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton, New Brunswick; Halifax, Nova Scotia; Melbourne; Sydney; Adelaide; Medical College, Halifax, Nova Scotia; Michigan College of Medicine.—Matriculation Examination.

University of Manitoba.—Previous Examination.

University of King's College, Nova Scotia.—Matriculation Examination; Responsions.

Tasmanian Council of Education.—Examination for the degree of Associate of Arts; certificate to include Latin and Mathematics.

University of the Cape of Good Hope.—Matriculation Examination; Examination for a degree in Arts.

University of Otago.—Preliminary Examination.

University of New Zealand.—Entrance Examination.

Christ's College, Canterbury, New Zealand.—Voluntary Examinations; certificate to include all the subjects required by the Council's 4th Recommendation.

Codrington College, Barbadoes.—English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur."

Ceylon Medical College.—Preliminary Examination (Primary Class).

Germany and other Continental Countries.—Gymnasial Abiturienten Examen in Germany, and the corresponding Entrance Examination to the Universities in other continental countries.

We have already pointed out that the University of London insists on all its would-be members passing its own Matriculation Examination. This is somewhat severe; but, when passed, it gives a man a certain standing, which is always of value. Moreover—and *this is very important*—the University counts no medical study until this examination has been passed, so that even if a man has gone through a complete medical curriculum, and should yet desire the University of London degree, he would have to go back to the very beginning over again to attain the object of his ambition.

UNIVERSITY OF LONDON.—The following are the particulars relating to the Matriculation Examination:—

Matriculation.—There shall be two examinations for Matriculation in each year—one commencing on the second Monday in January, and the other on the third Monday in June.(d)

No candidate shall be admitted to the Matriculation Examination unless he have produced a certificate(e) showing that he has completed his sixteenth year. This certificate shall be transmitted to the Registrar at least *fourteen days* before the commencement of the examination. A fee of £2 shall be paid at matriculation. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar.(f) The examination shall be conducted

(c) The *English* is provided for by the following resolution of the Executive Committee:—"That, as every candidate for the certificate of the Oxford and Cambridge Schools' Examination Board is required to answer questions in such a manner as to satisfy the examiners that he has an adequate knowledge of English Grammar and Orthography, this shall be held as conforming to the requirements of the Medical Council in reference to English Language."

(d) These examinations may be held, not only at the University of London, but also, under special arrangement, in other parts of the United Kingdom, or in the colonies.

(e) A certificate from the Registrar-General in London, or from the Superintendent Registrar of the district, or a certified copy of the baptismal register, is required *in every case in which it can possibly be obtained*. In other cases the best evidence procurable is admitted. The certificate of each candidate is returned to him when he inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate when the receipt of his certificate of age is acknowledged.

(f) The fee must be paid when the candidate inscribes his name on the Register of the University.

by means of printed papers; but the examiners shall not be precluded from putting, for the purpose of ascertaining the competence of the candidates to pass, such oral questions to any candidate in the subjects in which they are appointed to examine. Candidates shall not be approved by the examiners unless they have shown a competent knowledge in each of the following subjects, according to the details specified under the several heads:—1. Latin. 2. Any two of the following languages: Greek, French, German, and either Sanskrit or Arabic. 3. The English Language, English History, and Modern Geography. 4. Mathematics. 5. Natural Philosophy. 6. Chemistry.

The following are the particulars relating to the foregoing subjects of examination for the year 1882:—

Languages.—In Latin the following authors have been selected:—January, 1882—*Horace*: Odes, Books I. and II. June—*Livy*: Book II. The paper in Latin shall contain passages to be translated into English, with questions in history and geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. A separate paper shall be set containing questions in Latin grammar, with simple and easy sentences of English to be translated into Latin. (j) In Greek:—January, 1882—*Xenophon*: Anabasis, Book VI. June—*Homer*: Iliad, Book XVIII. The paper in Greek shall contain passages to be translated into English, with questions in grammar, (j) and with questions in history and geography arising out of the subjects of the book selected. Short and easy passages shall also be set for translation from other books not so selected. French—The paper in French shall contain passages for translation into English, and questions in grammar, limited to the Accidence. German—The paper in German shall contain passages for translation into English, and questions in grammar, limited except when German is taken as an alternative for Greek) to the Accidence. Sanskrit; Arabic—The paper in Arabic shall contain passages for translation into English, and questions in grammar. The English Language, English History, and Modern Geography—Orthography; writing from dictation; the grammatical structure of the language. History of England to the end of the seventeenth century; with questions in modern geography.

Mathematics.—Arithmetic: The ordinary rules of arithmetic; Vulgar and Decimal Fractions; Extraction of the Square Root. Algebra: Addition, Subtraction, and Multiplication, and Division of Simple Quantities; Proportion; Arithmetical and Geometrical Progression; Simple Equations. Geometry: The First Four Books of Euclid, or the subjects thereof.

Natural Philosophy. (m)—Mechanics: Composition and Resolution of Statical Forces; Simple Machines Mechanical Powers—Ratio of the Power to the weight in each; Centre of Gravity; General Laws of Motion, with the chief experiments by which they may be illustrated; Laws of the Motion of Falling Bodies. Hydrostatics, Hydraulics, and Pneumatics: Pressure of Liquids and Gases, its equal diffusion and variation with the depth; Specific Gravity, and modes of determining it; the Barometer, the Syphon, the Common Pump and Forcing Pump, and the Air Pump. Optics: Laws of Reflection and Refraction; formation of Images by Mirrors and Simple Lenses. Heat: its Sources; Expansion; Thermometers—relations between different Scales in common use; Difference between Temperature and Quantity of Heat; Specific and Latent Heat; Calorimeters; Liquefaction; Ebullition; Evaporation; Conduction; Convection; Radiation.

Chemistry.—Chemistry of the Non-metallic Elements, including their compounds as enumerated below, their chief physical and chemical characters, their preparation, and their characteristic tests. Oxygen, Hydrogen, Carbon, Nitrogen; Chlorine, Bromine, Iodine, Fluorine; Sulphur, Phosphorus, Silicon. Combining Proportions by weight and by volume; General Nature of Acids, Bases, and Salts; Symbols and Nomenclature. The Atmosphere—its constitution; effects of Animal and Vegetable Life upon its composition. Combustion; structure and properties of Flame; nature and composition of ordinary fuel. Water: Chemical peculiarities of Natural Waters, such as rain-water, river-water, spring-water, sea-water. Carbonic Acid; Carbonic Oxide; Oxides and Acids of Nitrogen; Ammonia; Olefiant Gas; Marsh Gas; Sulphurous and Sulphuric Acids, Sulphuretted Hydrogen. Hydrochloric Acid, Phosphoric Acid, and Phosphuretted Hydrogen; Silica.

ENTRANCE ON PROFESSIONAL STUDIES.

In all cases the period of medical studies is supposed to extend over four years, or more exactly forty-five months; and in Scottish universities this is rigidly enforced, but in England the curriculum is so arranged in all hospital schools, that three winter and two summer sessions' attendance suffices for school work. This leaves an odd year, which may be spent in attendance on a hospital which has no school attached, provided it complies with certain conditions, or with a private medical man holding certain appointments. This extra-scholastic period may likewise be spent—and is usually best spent, especially by those seeking the higher qualifications—in clinical work in the school to which the student belongs, after he has completed his stated curriculum. But the odd year may also be taken before entering on medical-school life, thus to a certain extent simulating the ancient system of apprenticeship. The last-mentioned plan is not yet entirely disused, and there are some who would like to see it revived. And though with this view we are not altogether in accord, we freely admit that something of the kind is highly necessary before a man enters on the duties of his profession on his own account. Under the old system, a student learned something of the aspect of drugs and of their properties; and he was taught to read, write, and compound a prescription. Nowadays, he learns little or nothing of all this. Every hospital has its own pharmacopœia, and, for the purpose of saving time, prescriptions are ordinarily, and as far as possible, written in accordance with this. But the knowledge thus conveyed to the student, except he refer directly and on all occasions to the book in question, is infinitesimal; whilst to the style of hospital dispensing the same remark applies. It must be said, however, that the period assigned to apprenticeship, which was commonly five years, was far too long; and one year spent in this way, after a student has passed through his curriculum, will do as much good, if not more, than the five under the old system. Again, it is true that a student who has served some kind of an apprenticeship starts on his curriculum with certain advantages not possessed by those who come more directly from school; but they do not, as a rule, long maintain this lead; and, too frequently, have to submit to that most tedious, troublesome, and disagreeable of tasks—the unlearning of many things, more especially with regard to the true methods of study and investigation. On the whole it is best, perhaps, for students to come to a medical school with a good fair mental culture of the broadest kind, and something more than a smattering of Physics, Chemistry, Botany, and Zoology.

REGISTRATION.

As soon as the student has passed his preliminary examination, and provided he desires to enter on his studies at once, so as to make time count, he must register his certificate at the office of the General Medical Council, 299 Oxford-street, W., or at that of the Branch Registrar in Scotland (Archibald Inglis, 33, Albany-street, Edinburgh), or in Ireland (W. E. Steele, 35, Dawson-street, Dublin), as the case may be, which will save him all further trouble as regards preliminary education. This is necessary, if the student desires to spend the first year with a general practitioner or at a country hospital, so as to enable the time thus spent to be included in the period of medical study. But when the student begins by entering a medical school, he must register the actual commencement of his hospital studies as being likewise the date of the commencement of medical studies. In London everyone used to register at the College of Surgeons, but that plan has been abandoned. It is now the practice for the return required by the General Medical Council to be sent in by the school authorities. *All registration must be made at the place of residence for the beginning of medical studies*, at whatever time that may be, no time previous to this counting.

(g) No credit will be given for more than two of these languages.

(h) Candidates who desire to be examined in either Sanskrit or Arabic must give at least *two calendar months' notice* to the Registrar, and must mention the other optional language which they select.

(i) Special stress is laid on accuracy in the answers to the grammar questions, and on the correct rendering of English into Latin.

(k) Candidates may substitute German for Greek.

(l) Special stress is laid on accuracy in the answers to the questions in Greek grammar.

(m) The questions in Natural Philosophy will be of a strictly elementary character.

II.—SCIENTIFIC EDUCATION.

As matters now stand, instruction in medical and scientific knowledge is, during the student's first year, inextricably mixed, as far as the latter subjects are in most schools taught at all. Thus, on entering a school, the student is set to work at once on Chemistry, Anatomy, and Physiology; whilst in summer, Botany, Practical Chemistry, and Materia Medica are taught simultaneously. It would be far better if the student came to the study of medicine ready prepared in the scientific subjects already named, for the strictly scientific

subjects clash with the purely medical, and are never greatly relished by the student, whilst Physics and Zoology are hardly ever efficiently taught in a purely medical school. Great inducements are now being held out by the College of Physicians for students thus to master certain branches before entering on their professional education. Thus, in Botany, Chemistry, Pharmacy, and Materia Medica, no regular class certificates are required, but only certificates of having received instruction, which anyone may give. This scheme is founded on the so-called Conjoint Scheme, so that it will in all probability be adopted by other licensing bodies. In most large public schools, science is now well taught—sometimes much better than in medical schools: the teachers are specially selected for their scientific aequirements and their powers of communicating instruction, and not in accordance with hospital rules, by which too often the round stick is found in the square hole, and a capital teacher of Medicine or Surgery is allowed to waste in working at a most uncongenial subject. At such a school as Epsom, Physics, Chemistry, Botany, and Zoology are now well and efficiently taught, and a boy on leaving should have little difficulty in passing the greater part of his First Examination at the College of Physicians, which may be done immediately after registration.

The University of London, as usual, takes its own course independently of all others, and holds a special Preliminary Scientific Examination of its own. We would again urge on all intending graduates to get this over as soon as possible, for with much sadness we have often seen men grinding at these preliminary subjects at a period of their career when they should have been engaged in strictly professional work. But there is no use trying to "fluke" through this examination; it is just as well to recognise at once that no one has a chance of passing whose knowledge is not good and accurate. It is in fact the *pons asinorum* of the London degree, and usually thins in a woful manner the ranks of the would-be candidates. The following is a synopsis of the regulations and of the subjects on which the questions are put:—

PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

No candidate shall be admitted to this examination which takes place on the third Monday of July, until he shall have completed his seventeenth year, and shall have either passed the Matriculation Examination or taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras; provided that Latin was one of the subjects in which he passed); nor unless he have given notice of his intention to the Registrar at least *fourteen days* before the commencement of the examination.

The fee for this examination shall be £5.

No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar (n). If, after payment of his fee, a candidate withdraws his name, or fails to present himself at the examination, or fails to pass it, the fee shall not be returned to him; but he shall be allowed to enter for any *two* subsequent Preliminary Scientific (M.B.) Examinations without the payment of any additional fee, provided that he give notice to the Registrar at least *fourteen days* before the commencement of the examination; such notice, in respect to the privilege aforesaid, being considered equivalent to entry.

Candidates shall be examined in the following subjects (o):—

INORGANIC CHEMISTRY.

Differences between mechanical mixture, solution, and chemical combination; outlines of crystallography; formation of crystals; dimorphism; isomorphism; conditions on which the melting-point and the boiling-point of a substance depend; difference between elementary and compound substances; laws of chemical combination; equivalent weights of the elements; multiple proportions; the atomic theory; atomic value (quantivalence); molecules; molecular weights; relation between the density of a gas and its molecular weight; abnormal densities; Avogadro's hypothesis; combination of gases by volume; compound radicals; atomic and molecular combination. Meaning of chemical symbols, formulæ, and equations; calculation of quantities by weight and by volume; chemical changes, and the conditions under which they occur; combination; decomposition; double decomposition; nature of acids, bases, and salts; capacity of saturation of acids and bases; nomenclature. Relation between atomic weight and specific heat; Faraday's electrolytic law; principles of spectrum analysis; diffusion of gases. Hydrogen, chlorine, bromine, iodine, fluorine; the combination of the last four elements with hydrogen. Oxygen; ozone; water and peroxide of hydrogen; the oxide and oxyacids of chlorine; chlorates and hypochlorites. Sulphur; sulphuretted hydrogen; the oxides of sulphur; sulphuric acid and the sulphates; sulphurous acid and the sulphites; chlorosulphuric acid. Nitrogen; the atmosphere and its relations to animal and vegetable life; ammonia; ammonium and its salts; the oxides of nitrogen; nitric acid and nitrates; carbonic acid and nitrites. Phosphorus; phosphoretted hydrogen; the oxides of phosphorus; phosphoric acid and the phosphates; chloride and oxychloride of phosphorus. Arsenic and its oxides; arseniuretted hydrogen; arsenious acid and its salts; arsenic acid and its salts; the sulphides of arsenic; detection of arsenic. Antimony, its oxides and sulphides; antimoniuretted hydrogen; chlorides of antimony; compounds of antimonic oxide; detection of antimony. Boron; boracic acid and the borates. Carbon; carbonic oxide and carbonic acid; the carbonates; carbon oxysulphide; sulphocarbonic acid; marsh-gas; ethylene; combustion; structure of flame; coal-gas; Davy lamp; principles of illumination. Silicon; silicieretted hydrogen; silicon chloride; silicon chloroform; silica and the silicates. Potassium; sodium; silver. Calcium; strontium; barium. Aluminium. Magnesium; zinc; cadmium. Lead. Manganese; iron; cobalt; nickel; chromium. Bismuth; copper; mercury; gold; tin. Platinum. The chief compounds of these metals with the more important acid radicals; the detection of these metals and their compounds, in powder or in solution.

EXPERIMENTAL PHYSICS.

[Candidates will be expected to show a general acquaintance with the methods and apparatus by which the leading principles of Physics as enumerated below can be illustrated and applied.]

Units of measurement. The laws of motion considered experimentally. The chief forces of nature. The general properties of solids, liquids, and gases. The nature, intensity, and transmission of fluid pressure in general. The pressure of liquids in equilibrium under the action of gravity. The equilibrium of solids floating or entirely immersed in gravitating fluids. The specific gravities of substances, with the ordinary modes of determining them. Measurement of the pressure of the atmosphere and of the elastic force of gases. Diffusion of liquids and gases. Definition of work and energy; conservation and transmutation of energy.

Acoustics.—Production and mode of propagation of sound; intensity, pitch and quality. Velocity of sound in air. Influence of temperature and density. Velocity of sound in other media. Laws of reflection and refraction. Nature of musical sounds. Longitudinal vibrations of rods and of columns of air. Transverse vibrations of strings; variation in their rate of vibration by changes in their tension, length, thickness, and substance.

Heat.—Definitions of heat and temperature. Construction of instruments for the measurement of temperature. Expansion of solids, liquids, and gases under heat. Change of state; tension of vapours; latent heat. Radiant heat; its reflection, refraction, and absorption. Conduction; definition of thermal conductivity. Convection. Specific heat; mechanical equivalent of heat.

Magnetism.—Properties of magnets; induction—magnetic relations of iron and steel. Terrestrial magnetism.

Electricity.—Two electrical states, and their mutual relations. Conduction and insulation. Induction. Electric attraction and repulsion. Distribution and accumulation of electricity on conductors. Electric discharge. Voltaic electricity; the various batteries. Electro-motive force, strength of currents, resistance; Ohm's law. Heating and chemical effects of electric currents; action between currents and magnets; electro-magnetism. Induced currents; magneto-electricity. Thermo-electricity.

Optics.—Laws of propagation of light; measurement of velocity of light; photometry. Laws of reflection and refraction of light. Reflection at plane and at curved surfaces. Refraction at plane and at spherical surfaces. Refraction through lenses, including the formation of images. Chromatic dispersion.

BOTANY AND VEGETABLE PHYSIOLOGY. (p)

Structure, functions, and life-history of simple unicellular plants, such as *Protococcus* and *Saccharomyces*, yeast, as types of vegetable life. Structure, functions, and life-history of *Penicillium*, *Mucor*, or some other simple fungus. Structure, functions, and life-history of *Chara* or *Nitella*. Morphology, histology, and history of the reproduction of a fern. Morphology and histology of a flowering plant; structure of a flower; homologies of leaves and floral organs; histology of ordinary vegetable tissues, such as epidermis, parenchyma, fibro-vascular tissue, and their arrangement in the stem and leaf. General principles of vegetable nutrition; food of plants; action of green parts of plants; nature and flow of sap. Growth of a flowering plant; formation of wood and bark; nature of cambium. Reproduction of a flowering plant; structure of ovule; methods of fertilisation; development of ovule into seed; distinctive characters of gymnosperms. Distinctive characters of the principal British natural orders, viz.,—*Dicotyledons*, Ranunculaceæ, Cruciferæ, Leguminosæ, Rosaceæ, Umbelliferæ, Compositæ, Scrophulariaceæ, Labiatæ, Amentaceæ; *Monocotyledons*, Orchideæ, Liliaceæ, Cyperaceæ, Gramineæ; *Acotyledons*, Filices, Musci, Lichens, Algæ, Fungi. (Description in technical language of specimens of flowering plants to be provided by the examiners.) Derivation and meaning of the following terms, and demonstration of their application on specimens (provided by the examiners):—Thalamifloræ, calycifloræ, corollifloræ; hypogynous, perigynous, epigynous; monandrous, diandrous, etc.; individual, variety, species, genus, order, class, kingdom.

ZOOLOGY.

General structure and life-history of the following animals, as types of some of the principal divisions of the animal kingdom:—Amœba, paramœcium, hydra, tænia, leech, mussel, snail, centipede, insect, lobster, frog. Comparative structure of the digestive apparatus (including the teeth in the dog, sheep, pig, and rabbit). Comparative structure and actions of the circulating and respiratory organs in the animals enumerated in the first paragraph, and also in each of the vertebrated classes. Essential structure of secretory organs; principal varieties in the structure of the liver and kidney. General plan of the nervous system in mollusca, arthropoda, and vertebrata. Proportionate development of the spinal cord and of the several encephalic centres in the ascending series of vertebrata. Respective functions of those centres. Modes of reflex action. Outlines of the comparative history of embryonic development in frog, bird, and mammal.

(n) The fee must be paid when the candidate inscribes his name on the Register of the University. Information respecting the time for doing this will be sent to each candidate with the acknowledgment of his notice.

(o) Candidates who shall pass in all the subjects of the Preliminary Scientific M.B. Examination, and shall also pass *at the same time* in the Pure Mathematics of the first B.Sc. examination, or who shall have previously passed the first B.A. examination, shall be admissible to the second B.Sc. examination. The attention of such candidates is directed to the fact that, under the new regulations for the B.Sc. degree, this degree may be obtained by passing at the second B.Sc. examination in the three biological subjects only.

(p) Candidates for this and other botanical examinations are expected to bring with them a pocket-lens or simple microscope of two powers, and also a sharp penknife.

III.—PROFESSIONAL EDUCATION.

It is clear that the main object sought to be attained by every scheme of medical education should be the preparation of the student for the duties of professional life. But it is equally clear that, with the short time at our disposal, it is impossible to do more than lay a solid foundation for the future acquisition of knowledge. It is not possible for a student during his short scholastic career to see every form of disease and to master the mode of treating it. Were it so, clinical Medicine and Surgery might well be the only subjects taught; but much must be taken for granted which has never been seen—hence the necessity for systematic books and lectures. For the same reason, bedside teaching should as much as possible assume the shape of training in method, especially as regards the various steps to be taken in coming to a correct diagnosis; whilst experience, or the guidance of others, direct or indirect, must teach the best means of remedying the diseased condition. But before entering on the practice of his profession the young medical man must procure some form of qualification which will admit him to registration as a medical practitioner. At the present time there are no fewer than nineteen bodies whose diploma or licence entitles the owner to registration. Moreover, the value of these various qualifications, as indicated by the curriculum demanded and the character of the examination, is far from being uniform. Hence it is that a great cry has gone out for uniformity as regards the lowest grade of requirement, leaving all questions as to higher degrees and every form of honours examination to be dealt with much as now. Should it be resolved to adopt that as a principle of reform, uniformity of curriculum and education will probably be obtained by some form of Conjoint Board scheme, or—which would be more feasible—by the establishment of a final State Examination for admission to the Medical Register. Meanwhile, however, the different licensing bodies exist, and exact very different amounts of class attendance, hospital practice, and even years of study. Hence it is that we must enter on the rules and regulations of the various licensing bodies in some detail, counselling the student to make his course of professional study as broad and comprehensive as possible, lest at any time he should change his mind and seek another diploma in addition to, or instead of, that he had originally in view.

The following is a list of the various licensing bodies, with the regulations attaching to each:—

(A.)

REGULATIONS OF BODIES GRANTING THE DEGREE OF DOCTOR OF MEDICINE.

1. UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

Every student in Medicine is required to have passed all the examinations for the degree of B.A., and to reckon the time of his medical study from the final examination for Arts.

1. Candidates for the degree of B.M. are required to pass two examinations, each of which is held yearly in the end of the summer or Trinity Term, due notice being given, in the usual manner, by the Regius Professor of Medicine.

The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine. The subjects of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), the Materia Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every candidate at this second examination is to be examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of those four, and in some more modern author approved by the Regius Professor, as Morgagni, for instance, Sydenham, or Boerhaave, or some German or French medical author.

Before a candidate is admitted to the first of these two examinations, he must have spent two years in professional studies after having passed the examinations required for the degree of B.A., unless he was placed in the first or second class in the School of Natural Science, in which case, if he received from the public examiners a special certificate of his attainments in Physics, Mechanical Philosophy, Chemistry, or Botany, he may be admitted to this examination at once, and need not then be examined again in any science specified in such certificate. Nor, indeed, is he, by recent decree, re-examined in Physics or Chemistry if he has passed the Natural Science school. If he bring evidence of a first or second class in Biology, he may be admitted in the same way. But he is equally examined, nevertheless, in every case, in Anatomy and Physiology.

Before a candidate is admitted to the second examination, he must have completed sixteen terms from the date of the same *testamur*, and two years from the date of his *testamur* in the first medical examination, and must deliver to the Regius Professor satisfactory evidence of his attendance at some first-class hospital.

No one from another University can be incorporated as a graduate in Medicine without passing these two examinations, as well as having previously passed all examinations for the B.A. degree at his own University.

An examination in Preventive Medicine is held annually. Candidates must have taken the degree of B.M. at Oxford.

2. A Bachelor of Medicine wishing to proceed to the degree of Doctor is required to read publicly within the precincts of the Schools, in the presence of the Regius Professor, a dissertation composed by himself on some medical subject approved by the Professor, and to deliver to him a copy of it.

A student deciding to graduate in Medicine should proceed as follows:—1. To enter a college or hall or become an unattached student by applying to the "Delegates of Unattached Students." 2. To pass the requisite examinations in Arts. 3. After passing the requisite examination for the degree of B.A., to spend two years in study(a) prior to a scientific examination for the degree of Bachelor of Medicine; and two years more prior to the final or practical examination for the same degree. These four years of medical study may be spent either out of or in Oxford, at a first-class hospital. This degree confers the licence to practise. For the degree of Doctor in Medicine a dissertation has to be publicly read three years after the B.M.

2. UNIVERSITY OF CAMBRIDGE.

Cambridge is a better place for the purely scientific than for the student of medicine; nevertheless, even for the latter it offers many and great advantages during the earlier portion of the medical curriculum. A student may live as cheaply as in London, and there are a vast number of science scholarships to help him on his way. Nor should the advantages of a University life be neglected or overlooked.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

Degree of Bachelor of Medicine.—Before a student can become a Bachelor of Medicine he must have resided nine terms (three academical years) in the University as a member of a college or as a non-collegiate student, and have graduated in Arts, or have passed the Previous Examination. This may be passed in the first term of residence, or through the "Local Examinations" or the "Oxford and Cambridge School Board Examinations," *before* coming up to the University. By the last course, time is saved, and the student is able, in his first October term, to join the Natural Science and Medical classes at the commencement of the several courses and at the commencement of the academical year.

Five years of medical study are required, unless the student has graduated with honours as Bachelor of Arts, in which case four years of medical study are deemed sufficient.

There are three examinations for M.B.

The first examination is in—1. Chemistry and other branches of Physics; 2. Botany. Before presenting himself for it the student must have attended lectures on Chemistry, including manipulations, and on Botany.

The second examination is in—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy.

(a) If he have taken the higher honours in the Natural Science School, he may go in for the first M.B. examination on the first opportunity.

The student must have completed two years of medical study, and must possess [illegible] certificates of attendance on lectures on the Elements of Comparative Anatomy, on Human Anatomy and Physiology and on Pharmacy; and of one year's hospital practice, and of one session's dissections.

The third examination is in—1. Pathology and Practice of Physic; 2. Clinical Medicine; 3. Medical Jurisprudence; 4. Principles of Surgery; and 5. Midwifery. The candidate must have completed the course of medical study, and must produce certificates of attendance on one course of lectures on each of the following subjects:—Pathological Anatomy, Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and Midwifery, with attendance on ten cases of Midwifery; and of having attended the medical practice of a hospital during three years, and the surgical practice during one year; and of having been clinical clerk for six months at a recognised hospital, or of having had special charge of hospital, dispensary, or union patients under a qualified medical practitioner; and of having acquired proficiency in Vaccination.

The third examination is divided into two parts—one including Midwifery and the Principles of Surgery, the other Pathology and the Practice of Medicine and Medical Jurisprudence; and candidates are allowed to enter the two parts of the examination at separate times.

After the third examination an Act has to be kept, which consists in reading an original thesis, followed by a *viva voce* examination on the subject of the thesis, as well as on other subjects of the Faculty.

The Degree of Doctor of Medicine may be taken three years after M.B. An Act has to be kept, with *viva voce* examination, and an essay has to be written extempore. A Master of Arts of four years' standing can proceed direct to M.D. provided he produces the same certificates and passes the same examinations as for M.B.

Degree of Bachelor of Surgery.—The candidate must have passed all the examinations for the degree of Bachelor of Medicine, and have attended the surgical practice of a recognised hospital for two years, have acted as Dresser or House-Surgeon for six months, and have gone through a course of instruction in Practical Surgery. The subjects of the examination are—1. Surgical Operations and the Application of Surgical Apparatus; 2. The Examination of Surgical Patients.

Degree of Master in Surgery.—The candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended a second course of lectures on Human Anatomy, one course of lectures on the Principles and Practice of Surgery, one year's clinical surgical lectures, a second session of dissections, three years' surgical practice of a recognised hospital, and of having been House-Surgeon or Dresser for six months. The subjects of the examination are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery.

All the examinations for medical degrees take place in the Michaelmas and Easter Terms.

For additional information respecting graduation in Cambridge, see the "Student's Handbook to the University" and the "Student's Guide to the University," published by Messrs. Deighton, Cambridge, price 1s. 6d. each.

3. UNIVERSITY OF LONDON.

BACHELOR OF MEDICINE.

This University grants degrees both in Medicine and Surgery, and certificates in subjects relating to Public Health. Those available for young students are the Bachelorships of Medicine and Surgery.

Every candidate for the degree of Bachelor of Medicine shall be required—

1. To have passed the matriculation examination in this University (unless he has taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras, and Latin was one of the subjects in which he passed).

2. To have passed the preliminary scientific examination (see page 302). (Candidates for the degree of M.B. are strongly recommended by the Senate to pass the preliminary scientific examination before commencing their regular medical studies.)

3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, at one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom.

4. To pass two examinations in Medicine.

INTERMEDIATE EXAMINATION IN MEDICINE.

The examination shall take place once in each year, and shall commence on the last Monday in July.

No candidate shall be admitted to this examination unless he have passed the preliminary scientific examination at least one year previously, and have produced certificates to the following effect:—

1. Of having completed his nineteenth year.

2. Of having, subsequently to having passed the matriculation examination, or taken a degree in Arts in one of the before-named universities, been a student during two years at one or more of the medical institutions or schools recognised by this University: and of having attended a course of lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, Histology and Physiology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine.

3. Of having, subsequently to having passed the matriculation examination or taken a degree in Arts, dissected during two winter sessions.

4. Of having, subsequently to having passed the matriculation examination or taken a degree in Arts, attended a course of Practical Chemistry, comprehending practical exercises in conducting the more important processes of general and pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of mineral waters, animal secretions, urinary deposits, calculi, etc.

5. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of medicines.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—Anatomy, Physiology and Histology (candidates may be required to show their acquaintance with such parts of Comparative Anatomy and Physiology as are included in the Examination in Zoology at the preliminary scientific examination), (a) Materia Medica and Pharmaceutical Chemistry, Organic Chemistry.

M.B. EXAMINATION.(b)

No candidate shall be admitted to the second M.B. examination within two academical years of the time of his passing the first examination, nor unless he have produced certificates to the following effect:—

1. Of having passed the first M.B. examination.

2. Of having, subsequently to having passed the first M.B. examination, attended a course of lectures on each of two of the subjects comprehended in the list given above, and for which the candidate had not presented certificates at the first M.B. examination.

3. Of having conducted at least twenty labours. (Certificates on this subject will be received from any legally qualified practitioner in medicine.)

4. Of having attended the surgical practice of a recognised hospital or hospitals during two years, with clinical instruction and lectures on Clinical Surgery.

5. Of having attended the medical practice of a recognised hospital or hospitals during two years, with clinical instruction on and lectures on Clinical Medicine. N.B.—The student's attendance on the surgical and on the medical hospital practice may commence at any date after his passing the preliminary scientific examination, and may be comprised either within the same year or within different years; provided that in every case his attendance on surgical and medical hospital practice

(a) Any candidate shall be allowed, if he so prefer, to postpone his examination in Physiology and Histology from the first M.B. examination at which he presents himself for examination in the remaining subjects until the first M.B. examination in the next or any subsequent year; but such candidate shall not be admitted to compete for honours on either occasion; and he shall not be admitted as a candidate at the second M.B. examination until after the lapse of at least twelve months from the time of his passing the examination in Physiology and Histology.

(b) Any candidate for the second M.B. examination who has passed the first M.B. examination under the former regulations will be required to have also passed the examination in Physiology at some previous first M.B. examination carried on under the present regulations; at which examination he shall not be allowed to compete for honours.

be continued for at least eighteen months subsequently to his passing the first M.B. examination. Attendance during three months in the wards of a lunatic asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

6. Of having, after having attended surgical and medical hospital practice for at least twelve months subsequently to passing the first M.B. examination, attended to Practical Medicine, Surgery, or Obstetric Medicine, with special charge of patients, in a hospital, infirmary, dispensary, or parochial union, during six months, such attendance not to be counted as part of either the surgical or the medical hospital practical work prescribed in Clauses 4 and 5.

7. Of having acquired proficiency in vaccination. Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.'

The candidate shall also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended.

The fee for this examination shall be £5.

Candidates shall be examined in the following subjects:—General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine.

The examinations shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

BACHELOR OF SURGERY.

No candidate shall be admitted to the examination for the degree of Bachelor of Surgery unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.

2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject.

The fee for this examination shall be £5.

Candidates are examined in Surgical Anatomy and surgical operations, by printed papers; examination, and report on cases, of surgical patients; performance of surgical operations upon the dead subject; application of surgical apparatus; *viva voce* interrogation.

MASTER IN SURGERY.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having taken the degree of Bachelor of Surgery (d) in this University.

2. Of having attended, subsequently to having taken the degree of Bachelor of Surgery in this University—*a*. To Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University. *b*. Or to Clinical or Practical Surgery during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c*. Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University. (One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. examination have been placed in the first division.)

3. Of moral character, signed by two persons.

The fee for the degree of Master in Surgery shall be £5.

Candidates shall be examined in the following subjects:—Logic and Psychology.

Names, notions, and propositions. Syllogism. Induction and subsidiary operations. The senses. The intellect. The will, including the theory of moral obligation.

Any candidate who has taken the degree either of B.A., B.Sc. (if including Branch IX., or M.D. in this University, is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.S. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.

The subjects of examination are—Logic and Psychology; a commentary on a case in Surgery, by printed papers; Surgical Anatomy and Surgery, by printed papers; examination and report on cases of surgical patients in the wards of a hospital; dissection of a surgical region or performance of surgical operations; *viva voce* interrogation.

DOCTOR OF MEDICINE.

No candidate shall be admitted to this examination unless he have produced certificates to the following effect:—

1. Of having passed the second examination for the degree of Bachelor of Medicine in this University.

2. Of having attended, subsequently to having taken the degree of Bachelor of Medicine in this University—*a*. To Clinical or Practical Medicine during two years in a hospital or medical institution recognised by this University. *b*. Or to Clinical or Practical Medicine during one year in a hospital or medical institution recognised by this University; and of having been engaged during three years in the practice of his profession. *c*. Or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Medicine in this University. (One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those candidates who at the second M.B. examination have been placed in the first division.)

3. Of moral character, signed by two persons.

The fee for the degree of Doctor of Medicine shall be £5 (e).

Candidates shall be examined in the following subjects:—Logic and Psychology.

Names, notions, and propositions. Syllogism. Induction and subsidiary operations. The senses. The intellect. The will, including the theory of moral obligation.

Any candidate who has taken the degree either of B.A., B.Sc. (if including Branch IX.), or M.S. in this University, is exempted from this part of the examination; and any candidate who has passed the second M.B. examination may at any subsequent M.D. examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Doctor of Medicine.

The subjects of examination are—Logic and Psychology; a commentary on a case of Medicine or Obstetric Medicine, at the option of the candidate, by printed papers; Medicine, by printed papers; examination and report on cases of medical patients in the wards of a hospital; *viva voce* interrogation and demonstration from specimens and preparations.

4. UNIVERSITY OF DURHAM.

FACULTY OF MEDICINE.

There are two licences and three degrees conferred—viz., a Licence in Medicine and a Licence in Surgery, and the degrees of Bachelor in Medicine, Master in Surgery, Doctor in Medicine.

Attendance at the College of Medicine for one year is considered equivalent to one year of residence at Durham for the degree of B.A.

A certificate of proficiency in Sanitary Science is also awarded.

REGULATIONS FOR LICENCES AND DEGREES.

For the *Licences in Medicine and Surgery* the same regulations must be complied with as for the degree of Bachelor in Medicine, except that no extra Arts examination is required. The first and second examinations for the licences are each held twice yearly at the same time as those for the degree of Bachelor in Medicine. The subjects of each examination are the same as of the corresponding examination for the degree. For the Licence in Surgery the second examination is directed more particularly to Surgery. The final examination for the licences may be passed at the same time.

For the *Degree of Bachelor in Medicine*, every candidate must be not less than twenty-one years of age, and must produce certificates of age, of registration as a student in Medicine in the books of the General Medical Council, of

(c) The Senate regard it as highly desirable that candidates for the degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a lunatic asylum.

(d) Candidates who have obtained the degree of Bachelor of Medicine previously to 1882 will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor in Surgery; and in the case of such candidates, the attendance on surgical practice may commence from the date of the M.B. degree.

(e) This fee will continue to be £10 to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.

good moral conduct, and of attendance on such lectures and hospital practice as the Warden and Senate require. (See below.)

In addition to the certificate of registration, the candidate must produce one or other of the following certificates:—(*a*) A certificate of graduation in Arts at one of the following Universities, viz.:—Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrews, Aberdeen, Calcutta, Madras, Bombay, the McGill College (Montreal), and Queen's College (Kingston); or (*b*) a certificate of having passed the preliminary or extra-professional examination for graduation in Medicine at one of the following Universities, viz.:—London, Edinburgh, Glasgow, St. Andrews, Aberdeen, and Queen's (Ireland); or (*c*) a certificate of having passed the preliminary examination in Arts, which until 1881 qualified for the Fellowship of the Royal College of Surgeons of England, or that now qualifying for the membership of the Royal College of Physicians of London; or (*d*) a certificate of having passed the preliminary examination in Arts for the degrees in Medicine of the University of Durham. This examination is held twice yearly, in April and September, at the same time as the registration examination. The next examination will commence on April 17, 1883, and another on September 18, 1883, and will include the following subjects, viz.:—Necessary subjects: Greek—Xenophon's Anabasis, Book III.; Euclid, Books III. and IV. Optional subjects (of which two only must be taken): Latin—Cicero's De Senectute; French—Voltaire's Louis XIV. chaps. I.-XIII.; German—Freytag's Der Staat Friedrichs des Grossen; Mechanics, Hydrostatics, and Pneumatics; English History—William I.-Henry II.

Application for admission must be made at least one month before the examination. The fee will be £1, payable to A. Beanlands, Esq., at the University, Durham.

Candidates who, at the commencement of their professional education, passed the Arts examination for registration only, may pass in the extra subjects required, either before or after presenting themselves for the first examination for the degree, but must do so before presenting themselves for the second examination.

Each candidate must have been engaged in medical and surgical study for four years from the date of his registration as a student of Medicine. It is necessary that one of the four years of professional education shall be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent, the candidate must attend at least two courses of lectures in the winter session, and two in the summer session, together with the class and test examinations held in connexion with those classes, and must also attend medical and surgical hospital practice, and clinical lectures on Medicine and Surgery, at the Infirmary. Candidates may fulfil this portion of the curriculum at any time before they present themselves for the second examination for the degree. They are not required to reside at Durham. They may spend the other three years of the curriculum either at Newcastle-upon-Tyne, or at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act, 1858.

The course of attendance on lectures and hospital practice above-mentioned is the same as that required for the membership of the Royal College of Surgeons of England, together with the following extra courses, viz.:—Botany and Therapeutics, each one course of three months' duration; Public Health and Medicine, each one course of six months' duration; medical hospital practice and clinical lectures on Medicine, each one winter and one summer session.

There are two professional examinations—the first being held twice yearly, viz., in October and April; and the second twice yearly, in June and December. The subjects of the first examination are—Anatomy, Physiology, Chemistry, and Botany.

The subjects of the second examination are—Medicine, Surgery, Midwifery and Diseases of Women and Children, Pathology, Medical Jurisprudence, Materia Medica and Therapeutics, and Public Health.

The first examination will commence on October 9, 1882, and on April 23, 1883. The second examination will commence on December 4, 1882, and on June 18, 1883.

Candidates for the first examination (for which they should present themselves at the end of their second winter session) must produce, in addition to the registration and Arts certificates above mentioned, certificates of attendance on two courses of lectures on Anatomy, one on Physiology, one on Theoretical and one on Practical Chemistry, and one on Botany, of twelve months' dissection, and of attendance on a course of Practical Physiology of not less than thirty demonstrations.

The successful candidates for the first and second examinations for the degree of Bachelor in Medicine will be arranged in three classes, in the first and second (honours) according to merit, and in the third (or pass) in alphabetical order.

N.B.—Candidates, who have completed part of their curriculum elsewhere, may pass their first examination previous to entering at Newcastle, and are recommended to commence their year of residence at Newcastle at the beginning of the winter session.

For the *Degree of Doctor in Medicine*, candidates must be of not less than twenty-four years of age, must have obtained the degree of Bachelor in Medicine, and must have been engaged for at least two years subsequently to the date of acquirement of the degree of Bachelor in Medicine, in attendance on the practice of a recognised hospital, or in the Military or Naval Services, or in medical and surgical practice.

Each candidate must write an essay, based on original research or observation, on some medical subject, selected by himself and approved by the Professor of Medicine, and must pass an examination thereon, and must be prepared to answer questions on the other subjects of his curriculum so far as they are related to the subject of the essay. A gold medal will be awarded to the candidate who presents the best essay (provided that the essay is judged to be of sufficient merit). The successful candidate will be permitted to publish his essay. Candidates, for their essays, must use foolscap paper, with a margin on the left hand side an inch or so in breadth, and must write on one side of the paper only. The essays must be forwarded to the Professor of Medicine one month before the date of the examination, and will be retained by the Faculty of Medicine.

For the *Degree of Master in Surgery*, candidates must have passed the examination for the degree of Bachelor in Medicine, and must have attended one course of lectures on Operative Surgery. Each candidate will have an additional paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

The examinations for the licences and degrees above-named are conducted at the College of Medicine, and in the Infirmary at Newcastle. Candidates are examined—1. By printed papers of questions; 2. Practically; 3. *Viva voce*.

Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must, at the same time, send the fee, £5, and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.

The Degree of Doctor of Medicine, for Medical Practitioners of Fifteen Years' Standing, without Residence.—The Warden and Senate of the University of Durham, with the view of affording to practitioners of fifteen years' standing an opportunity of obtaining the degree of Doctor of Medicine, have instituted a special examination, under the following regulations:—

1. That the candidate shall be registered by the General Council of Medical Education and Registration of the United Kingdom.

2. That the candidate shall have been in the active practice of his profession for fifteen years as a qualified practitioner.

3. That the candidate shall not be under forty years of age.

4. That the candidate shall produce a certificate of moral character from three registered members of the medical profession.

5. That if the candidate shall not have passed, previous to his professional examination (in virtue of which he has been placed on the Register), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics. The subjects for this examination shall be as follows:—*a*. An English essay. (A short essay on some subject to be specified at the time of the examination.) *b*. Arithmetic. *c*. Euclid—Books I. and II. *d*. Latin—Translation from Virgil, Æneid Books I. and II., together with grammatical questions. *e*. One of the following subjects:—(i.) Greek—Translation from Xenophon's Memorabilia, Books I. and II., with grammatical questions. (ii.) French—Translation from Voltaire's "Charles XII.," with grammatical questions. (iii.) German—Transla-

tion from Goëthe's "Wahrheit und Dichtung," Book I., with grammatical questions. (iv.) Elements of Mechanics, Pneumatics, and Hydrostatics. (v.) Some treatise on Moral, Political, or Metaphysical Philosophy.

6. That if the candidate shall have passed, previous to his professional examination (in virtue of which he has been placed on the Register), a preliminary examination, he shall be required to translate into English passages in any of the parts specified below of any one of the Latin authors mentioned—Cæsar, "De Bello Gallico," first three books; Virgil, first three books of the Æneid; Celsus, first three books. The candidate shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern Language.

7. That the candidate shall be required to pass an examination in the following subjects:—*a*. Principles and Practice of Medicine, including Psychological Medicine and Hygiene. *b*. Principles and Practice of Surgery. *c*. Midwifery, and Diseases peculiar to Women and Children. *d*. Pathology, medical and surgical. *e*. Anatomy, medical and surgical. *f*. Medical Jurisprudence and Toxicology. *g*. Therapeutics.

8. That the fee shall be £52 10s.

9. That if the candidate shall fail to satisfy the examiners the sum of £21 shall be retained; but that if he shall again offer himself for the examination the sum of £42 only shall then be required.

An examination in accordance with the above regulations will commence on December 4, 1882, and on June 18, 1883, in the College of Medicine, Newcastle-upon-Tyne.

Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, on or before November 1, 1882, or May 1, 1883, together with the fee and the before-mentioned certificates.

FEES.

For registration examination, £1; extraordinary registration examination, £2; preliminary Arts examination for degrees, £1; each public examination for a licence or degree in Medicine or in Surgery, £5; a licence in Medicine, £3; a licence in Surgery, £3; a degree of Master in Surgery, £8; a degree of Bachelor in Medicine, £6; a degree of Doctor in Medicine, £8, and for practitioners of fifteen years' standing, £52 10s.; a certificate in Sanitary Science, £5 5s., and for Medical Officers of Health, £10 10s.

The Registrar or Secretary will be happy to give any information either to students or their friends. Applications with regard to examinations should be made to the Registrar, Dr. Luke Armstrong, Clayton-street West, Newcastle-upon-Tyne: all others to the Secretary, Mr. H. E. Armstrong, College of Medicine, Newcastle-upon-Tyne.

SCOTTISH UNIVERSITIES.

5. UNIVERSITY OF ST. ANDREWS.

ORDINARY DEGREES.

THE degrees in Medicine granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum and examinations for these degrees are generally the same as those of the Universities of Edinburgh, Aberdeen, and Glasgow. The following regulations, however, for candidates for the degrees of Bachelor of Medicine and Master in Surgery present some difference:—

No one shall be received as a candidate for the degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following universities and colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

The remaining years of medical and surgical study may be either in one or more of the universities and colleges above specified, or in the hospital schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers of medicine as may from time to time receive recognition from the University Court.

Attendance on the lectures of any private teacher in Edinburgh, Glasgow, or Aberdeen shall not be reckoned for graduation in St. Andrews if the fee for such lectures be of less amount than is charged for the like course of lectures in the University of Edinburgh, of Glasgow, or of Aberdeen, according as the teacher lectures in Edinburgh, Glasgow, or Aberdeen.

Fees for Graduation.—For the degree of Bachelor of Medicine £5 5s. in respect of each of the three divisions of the examination on professional subjects; a further fee of £5 5s. for the degree of Master in Surgery, which is not conferred apart from the degree of Bachelor of Medicine, and *vice versâ*; and every candidate for the degree of Doctor of Medicine, who has previously obtained the degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a candidate for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

SPECIAL DEGREES.

The degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered medical practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, entitle him to that degree, and who shall, on examination, satisfy the medical examiners of the sufficiency of his professional knowledge; provided always, that degrees shall not be conferred under this section to a greater number than ten in any one year.

Regulations regarding the Examination of Registered Medical Practitioners above the Age of Forty Years.—The examinations are held yearly, towards the end of April. The graduation fee is £52 10s. Candidates, whose certificates are approved of by the Medical Faculty, are enrolled for examination in order of application, provided they have complied with the undermentioned regulations as to certificates and deposit. Candidates for graduation shall lodge with the Professor of Medicine the following certificates and deposit, along with their application for admission to examination:—1. Certificate of age from parish registrar, or by affidavit before a magistrate. 2. At least three certificates from medical men, of such acknowledged reputation in the profession, or of such standing in the medical schools, as shall satisfy the Senatus of the professional position and experience of the candidate. 3. A certain portion (viz., £15 10s.) of the graduation fee shall be forfeited should the candidate fail to appear at the time appointed for examination, or should he fail to graduate. 4. The examination shall be conducted both in writing and *viva voce*, and shall include the following subjects:—(1) Materia Medica and General Therapeutics; (2) Medical Jurisprudence; (3) Practice of Medicine and Pathology; (4) Surgery; (5) Midwifery, and Diseases of Women and Children.

6. UNIVERSITY OF EDINBURGH.

This University grants degrees in Medicine, Surgery, and Science (including Health).

No one is admitted to the degree of Bachelor of Medicine or Master in Surgery who has not been engaged in medical and surgical study for four years—the medical session of each year, or *annus medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course, and two courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

Every candidate for the degrees of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of medical science—viz., Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children: two courses of Midwifery of three months each being reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses; General Pathology; or, in schools where there is no such course, a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine), during courses in Dublin not less than one hundred lectures; Practical Anatomy, a course of the same duration as those of not less than one hundred lectures above specified; Practical Chemistry, three months; Practical Midwifery, three months at a midwifery hospital, or a certificate of attendance on six cases from a registered medical practitioner; Clinical Medicine, Clinical Surgery, courses of the same duration as those of not less than one hundred lectures above prescribed, or two courses of three months' lectures being

given at least twice a week; Medical Jurisprudence, Botany, Natural History (including Zoology), during courses including not less than fifty lectures.

2. That he has attended for at least two years the medical and surgical practice of a general hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of physicians and surgeons.

3. That he has attended during a course of not less than fifty hours' instruction the class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in a university or recognised school of medicine, or a similar class conducted by a teacher recognised by the University Court; or that he has been engaged, for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, physician, surgeon, or member of the London or Dublin Society of Apothecaries.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of medical and surgical study required must be in the University of Edinburgh.

2. Another of such four years of medical and surgical study must be either in the University of Edinburgh, or in some other university entitled to give the degree of Doctor of Medicine.

3. Attendance during at least six winter months on the medical or surgical practice of a general hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on courses of lectures as above prescribed.

4. One year's attendance on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on courses of lectures as above prescribed.

5. Candidates may, to the extent of four of the departments of medical study required by Section V., Sub-section 1, attend in such year or years of their medical and surgical studies, as may be most convenient to them, the lectures of the teachers of Medicine specified in the foregoing Sub-section 4. Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain three two *anni medici* out of the four required for the Bachelor's degrees in Medicine. Courses of lectures in these schools are regarded as equivalent to lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' courses in them, are not equivalent. One *annus medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *annus medicus* by attending either *(a)* full winter courses on any two of the following subjects:—Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or *b*, on one such course and three months' courses on any two of the following subjects—Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in *(a)*, certificates of attendance on either a third winter course, or a third three months' course, will also be accepted by this University. The other subjects, and the additional courses not given by the London or Dublin, required for the degrees of the University, will have to be attended at this University. In provincial schools, where there are no lecturers recognised by the University Court, a candidate can have only one *annus medicus*, and this is constituted by attendance on a qualified hospital along with a course of Practical Anatomy. (But in a provincial school where there are two or more lecturers recognised by this University, a second *annus medicus* may be made by attendance on at least two six months', or one six months' and two three months' recognised courses.)

6. All candidates not students of the University availing themselves of the permission to attend the lectures of extra-academical teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the library of the University.

7. The fee for attendance on the lectures of an extra-academical teacher in Edinburgh, with a view to graduation, must be of the same amount as that exigible by medical professors in the University. The fee must be paid at the commencement of the course.)

8. No teacher is recognised who is at the same time a teacher of more than one of the prescribed branches of study, except in those cases where professors in the University are at liberty to teach two branches.

9. It is not necessary for any teacher, attendance on whose lectures was recognised before 1861 for the purposes of graduation in the University, to obtain a new recognition from the University Court; and attendance on the lectures of every such teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any teacher or teachers.

Every candidate must deliver, before March 31 of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have done so on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master. (This declaration, along with a statement of studies, is appended to the schedule for the final examination, and must be signed before the schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

Each candidate is examined, both in writing and *viva voce*—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, Materia Medica including Practical Pharmacy), and Pathology: thirdly, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence: fourthly, clinically on Medicine and on Surgery in a Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

The degree of Doctor of Medicine may be conferred on any candidate who has obtained the degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produces a certificate of having been engaged, subsequently to his having received the degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on a hospital, or in the Military or Naval Medical Services, or in medical and surgical practice: provided always that the degree of Doctor of Medicine shall not be conferred on any person, unless he be a graduate in Arts of one of the universities of England, Scotland, or Ireland, or of such other universities as are above specified (Section III.), or unless he shall, before or at the time of his obtaining the degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects—namely, French, German, higher Mathematics, and Natural Philosophy; and provided also that the candidate for the degree of Doctor of Medicine shall submit to the Medical Faculty a thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those degrees. The candidate must lodge his thesis with the Dean on or before April 30 of the year in which he proposes to graduate. No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's and Master's degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

NOTICES TO CANDIDATES FOR GRADUATION IN MEDICINE.

1. An *annus medicus* is constituted by at least two winter courses of one hundred lectures each, or by one such course, and two summer courses of fifty lectures each, all being duly certified.

2. Four *anni medici* are required for graduates in Medicine. Two at least of these years must be passed at a university which grants degrees in Medicine, one of the two being at Edinburgh.

3. One or two of the *anni medici* may be taken at qualified extra-academical schools, in the manner stated in the succeeding paragraph:

4. In University College, in King's College, in the hospital schools of London, in the extra-academical school of Edinburgh, in the School of the College of Surgeons of Dublin, and in certain medical schools where at least two lecturers have been qualified by the University Court, a candidate may make *two anni medici*—one of which must be constituted by hospital attendance and Practical Anatomy, and the other by at least two courses of one hundred lectures, or one such course, and two courses of fifty lectures. The classes at these schools only qualify to the extent of four, and one of the four must be Practical Anatomy.

5. In provincial schools where there are no lecturers qualified by the University Court, a candidate can make *one annus medicus only*, and this is constituted by attendance on a qualified hospital, along with a course of Practical Anatomy.

The Fees are—For the degree of M.B. and C.M., £22; for the degree of M.D., £5 5s. additional to that for M.B., exclusive of £10 Government stamp.

The fees for M.D. are required to be paid on or before July 15.

Note.—Total fees and stamp for graduating as M.D. only, by regulations, for students commencing before February, 1861, £26.

N.B.—The above fees include all charges for the diplomas.

RIGHTS OF THE MEDICAL GRADUATES OF SCOTLAND ACCORDING TO THE MEDICAL ACT.

Before the passing of the Medical Act of 1858, the degree of Doctor of Medicine granted by the universities of Scotland (as the possessor underwent a complete education and examination in all departments of Physic and Surgery), qualified the graduate to practise every branch of the medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of

Her Majesty's dominions. But according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct diplomas—one for Medicine, and another for Surgery. The universities were thus compelled, in justice to their graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit registration as regularly qualified practitioners in the whole field of their professional education. The Secretary for War some time ago issued an order that candidates for admission into the Medical Service of the Army should obtain their qualifications in Physic and Surgery from two different sources; the effect of which would have been to prevent any one university from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single university in Scotland can now qualify candidates for the military service as well as for any other public medical service in the country.

The Medical Faculty have resolved that the written and oral examinations on Chemistry, Botany, and Natural History, in October, 1882, and April, 1883, shall be restricted in the following manner:—

1. *Chemistry.*—Classification of elements; general laws of chemical combination and action, as illustrated in the simpler compounds of the more commonly occurring elements; symbolic notation. Preparation and properties of the more important metallic elements and their chief compounds. Classification and general properties of acids, bases, and salts—electrolysis of salts. Oxygen, ozone, oxidation, and reduction. Hydrogen, water, peroxide of hydrogen, chlorine, hydrochloric acid, hypochlorites, chlorates, perchlorites, bromine, hydrobromic acid, bromates, iodine, hydriodic acid, iodates, periodates, fluorine, hydrofluoric acid. Sulphur, sulphuretted hydrogen, oxides of sulphur, sulphites, sulphates, thiosulphates, chlorides of sulphur, chloride of sulphuryl, nitrogen, the atmosphere, oxides of nitrogen, nitrates, nitrites, ammonia, ammonium salts, phosphorus, oxides of phosphorus, chlorides and oxychloride of phosphorus, phosphates, phosphites, hypophosphites, boron, boracic acid, borates, fluoride of boron, silicon, silica, silicates, chloride of silicon, fluoride of silicon, hydrofluosilicic acid. Carbon, oxides of carbon, carbonates, phosgene. Classification of carbon compounds. Marsh gas and its homologues. Methylic and ethylic alcohols and ethers. Methylamine, dimethylamine, trimethylamine, tetramethylammonium. Formic and acetic acids, aldehyde, acetone, olefiant gas, oxalic acid, lactic acid, tartaric acid, citric acid. Fats and oils, saponification, glycerine, cellulose, sugars, starch. Products of distillation of wood and of coal. Coal-gas, coal-tar, benzol, phenol, benzoic acid, oil of bitter almonds, hydrocyanic acids, cyanides, cyanates, sulphocyanates, urea. The following metals, their oxides, sulphides, and more important salts:—Potassium, sodium, magnesium, calcium, strontium, barium, aluminium, zinc, cadmium, manganese, chromium, iron, nickel, cobalt, bismuth, lead, copper, mercury, silver, tin, gold, platinum, antimony, arsenic. Simple qualitative analysis. [*The examination in analysis is conducted practically.*]

2. *Botany.*—Candidates to be examined on the following subjects:—A. Structural Botany: (*a.*) Histology—Structural elements, their general character, chemical and anatomical. General structure of roots, stems, and leaves. (*b.*) Organography—General characters and modes of arrangement of the nutritive and reproductive organs, root, stem, leaf, floral envelopes, stamen, pistil, fruit, and seed. Vernation, phyllotaxis, inflorescence, arrangement and insertion of floral parts, placentation. B. Physiological Botany: (*a.*) Nutrition—Absorption, elaboration of organic out of inorganic mat-rial, digestion, metastasis, respiration, movement of the sap, growth. (*b.*) Reproduction—Fertilisation and embryogeny in phanerogamia, and the higher cryptogamia; germination; asexual reproduction or gemmation. C. Systematic Botany: The candidate may be asked to define given sub-kingdoms, divisions, classes, series, or subclasses, or to refer given plants to such groups. He may also be examined on any of the following natural orders:—Ranunculaceæ, Papaveraceæ, Cruciferæ, Violaceæ, Caryophyllaceæ, Malvaceæ, Leguminosæ, Rosaceæ, Onagraceæ, Umbelliferæ, Dipsacaceæ, Compositæ, Valerianaceæ, Campanulaceæ (including Lobeliaceæ), Primulaceæ, Solanaceæ (including Atropaceæ), Scrophulariaceæ, Labiatæ, Polygonaceæ, Coniferæ, Liliaceæ, Amaryllidaceæ, Iridaceæ, Orchidaceæ, Gramineæ, Filices, Musci.

3. *Zoology and Comparative Anatomy.*—General characters of Protoplasta, Foraminifera, Infusoria, Coelenterata, Turbellaria, Cestoidea, Nematoidea, Gephyrea, Holothuroidea, Ophiuroidea, Cirripedia, Copepoda, Araneina, Myriapoda, Diptera, Hymenoptera, Coleoptera, Lamellibranchiata, Prosobranchiata, Cephalopoda, Polyzoa, Cyclostomata, Ganoidei, Dipnoi, Urodela, Lacertili, Ophidia, Saurura, Ratitæ, Carinatæ, Monotremata, Marsupialia, Edentata, Artiodactyla, Ichnoidea, Pinnipedia, Rodentia, Insectivora, Cheiroptera, Simiadæ. General anatomy of Aurelia, Hydra, Actinia, Distoma, Hirudo, Lumbricus, Aphrodite, Balanoglossus, Echinus, Asterias, Peripatus, Homarus, Daphnia, Limulus, Scorpio, Blatta, Chiton, Helix or Arion, Ascidia, Scyllium, Gadus, Rana, Testudo, Crocodilus, Columba, Equus, Canis, Ursus, Balæna, Delphinus, Lepus, Lemur, Simia. Principal facts in the development of Aurelia, Lumbricus, Asterias, Homarus, Hydrophilus, Appendicularia, Scyllium, Rana.

ARRANGEMENTS FOR THE PRELIMINARY EXAMINATIONS IN GENERAL EDUCATION.

The preliminary examinations in general education are held in the Upper Library Hall, and students matriculated for the academic year (November to November) are admitted on presenting their matriculation tickets at the door. Students matriculated for the summer only and non-matriculated students pay a fee of 10s. each, and are admitted on showing their receipts. Those who pay the fee in March will be admitted to the examination in October without further payment. Payment in October does not exempt from payment in March. The academic year is reckoned from November 1 to November 1.

Candidates are required to enter their names *in full*, and at the same time to mention the subject or subjects in which they offer themselves for examination. They are also required to state whether they have appeared for any preliminary or professional examinations at this University.

Any candidate who cannot appear personally at the time fixed to enter his name and pay the fee, must complete the schedule required for the purpose, and transmit it with an order for the fee to the Clerk of the University.

In conformity with Section I. of the Statutes, examinations on the preliminary branches of extra-professional education will take place on Tuesday, Wednesday, Thursday, and Friday, October 3, 4, 5, and 6, 1882; and on Tuesday, Wednesday, Thursday, and Friday, March 13, 14, 15, and 16, 1883.

Examination on Tuesdays.—Arithmetic, 9 to 11 a.m.; Mathematics (Euclid, Algebra), 11.30 a.m. to 1.30 p.m.; and Higher Mathematics, 2 to 4 p.m.

Examination on Wednesdays.—English, 9 to 11 a.m.; Natural Philosophy, 11.30 a.m. to 1.30 p.m. Mechanics, 2 to 4 p.m.

Examination on Thursdays.—Latin, 9 to 11 a.m.; Logic, 11.30 a.m. to 1.30 p.m.; Moral Philosophy, 2 to 4 p.m.

Examination on Fridays.—Greek, 9 to 11 a.m.; French, 11.30 a.m. to 1.30 p.m.; German, 2 to 4 p.m.

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7. UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

Three medical degrees are conferred by this University, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.); all of which are recognised by the Medical Act as qualifying for practice throughout the British dominions.

The degrees of Bachelor of Medicine and Master in Surgery, which must be taken together, may be obtained by candidates of the age of twenty-one years who have complied with the regulations as to education and examination. The degree of Doctor of Medicine may be conferred on candidates of not less than twenty-four years of age who have obtained the Bachelorship two or more years previously, and have fulfilled certain conditions to be afterwards mentioned.

The medical curriculum is as nearly as possible the same as that in the University of Edinburgh.

By an order of Her Majesty in Council, dated August 13, 1877, the following are the arrangements for Professional Examinations:—

1. Every candidate for the degrees of Bachelor of Medicine and Master in Surgery shall be examined both in writing and *viva voce*—first on Chemistry, Botany, and Natural History; second, on Anatomy and Physiology; third, on Regional Anatomy, Materia Medica and Pharmacy, and Pathology; and fourth, on Surgery, Clinical Surgery, Medicine, Clinical Medicine, Therapeutics, Midwifery, and Medical Jurisprudence. The Examination in Chemistry shall include Practical Chemistry; and the Examinations in Anatomy and Physiology shall include Practical Anatomy, Histology, and Practical Physiology; and the Examination in Surgery shall include Operative Surgery.

2. Students may appear for examination in the first of the foregoing divisions of subjects who have completed their attendance on the required courses during one winter and two summer sessions, or during one summer and two winter sessions.

3. Students who have passed the first examination may appear for examination in the second division of subjects after having completed their attendance on the requisite courses (including those of the subjects of examination), and after the lapse of two winter and three summer sessions, or of three winter and two summer sessions, from the time of the commencement of their studies.

4. Students who have passed the two previous examinations may appear for examination in the third division of subjects at any of the terms fixed for examinations by the Senate, after the conclusion of the third winter's session of attendance upon medical classes (including those of the required subjects).

5. Students who have passed the examinations in the subjects of the three previous divisions may appear for examination in the subjects of the fourth division at the first term for the final examination after the conclusion of their curriculum of study.

DEGREE OF DOCTOR OF MEDICINE.

The degree of Doctor of Medicine may be conferred on any candidate who shall produce evidence—*a*, that he is not less than twenty-four years of age; *b*, that he has obtained the Bachelorship two or more years previously; *c*, that he possesses a degree in Arts, or has, in addition to the preliminary examination in general education required for the Bachelorship, also passed an examination in Greek, and Logic or Moral Philosophy, together with any one of the other optional subjects included in the second part of the subjects of general education; *d*, that he has been engaged in professional study or avocation for two years after having obtained the Bachelorship. He must also lodge an inaugural dissertation, certified by him to have been composed by himself, on any subject included in the branches of knowledge embraced in the professional curriculum. Theses for the degree of M.D. must be lodged with Mr. Moir, the Assistant Clerk of Senate, on or before March 20, June 20, or October 20. No thesis will be approved unless it gives evidence of original observation, or, if it deals with the researches of others, gives a full statement of the literature of the question, with accurate references and critical investigation of the views or facts cited; mere compilations will in no case be accepted.

The fees for degrees are the same as in Edinburgh.

The Examinations in General Education take place twice yearly—viz., in October and March. The examinations for session 1882-83 will be held on Wednesday, Thursday, Friday, and Saturday, October 11, 12, 13, and 14, 1882, and Wednesday, Thursday, Friday, and Saturday, March 28, 29, 30, and 31, 1883. Those who intend to present themselves for either of these examinations are required to send in their names to the Assistant Clerk of Senate on or before September 27 or March 14. Those who are not matriculated students of the University pay a fee of 10s. on first entering their names for this examination.

The Professional Examinations are held at the following periods, viz.:—The first, second, and third in October and April (in 1882-83, beginning on October 16 and April 6); and the fourth in June and July (beginning on June 9, 1883).

8. UNIVERSITY OF ABERDEEN.

The following are the degrees in Medicine granted by this University—namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The preliminary examination and professional curriculum, and examination for the degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities Commissioners, are nearly the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of candidates for the degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations:—

One at least of the four years of medical and surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University or in some other University entitled to give the degree of Doctor of Medicine.

FEES FOR GRADUATION.

Each candidate for the degrees of M.B. and C.M. shall pay a fee of £5 5s. in respect of the first two professional examinations, and a fee of £10 10s. in respect of the third professional examination—each such fee of £5 5s. and £10 10s. respectively being payable at the time at which the candidate comes forward to be examined in that division in respect of which it is payable.

And every candidate for the degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the degree of Bachelor of Medicine, a fee of £5 5s., exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their medical studies before the first Tuesday of November, 1861, are entitled to appear for examination for the degree of M.D. after four years' study, one of which must have been at the University of Aberdeen.

IRISH UNIVERSITIES.

9. UNIVERSITY OF DUBLIN.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The degrees and licences in Medicine, Surgery, and Midwifery granted by the University are—1. Bachelor of Medicine, 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery; 5. Master in Obstetric Science; and Licences in Medicine, Surgery, and Obstetric Science. Besides these degrees and licences, the University also grants a qualification in State Medicine.

UNIVERSITY DEGREES.

1. *Bachelor in Medicine.*—A candidate for the degree of Bachelor in Medicine must be a graduate in Arts, and may obtain the degree of Bachelor in Medicine at the same commencements as those at which he receives his degree of B.A.; or at any subsequent commencements, provided the requisite medical education shall have been completed, and the necessary examinations passed. The medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on one course of lectures on each of the following subjects:—Winter: Anatomy, Practical Anatomy, Theoretical and Operative Surgery, Chemistry, Institutes of Medicine (Physiology), Practice of Medicine, Midwifery. Summer: Botany, Institutes of Medicine (Practical Histology), Comparative Anatomy, Pharmacology and Therapeutics, Medical Jurisprudence, Practical Chemistry. Term Courses: Michaelmas Term—Heat: Hilary Term—Electricity and Magnetism. Six months' Dissections are also required, and one month's instruction in Vaccination.

Hospital attendance includes—1. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board of Trinity College. 2. A certificate of personal attendance on fever cases, with names and dates of cases. The following hospitals, in addition to Sir Patrick Dun's Hospital, are recognised by the Board:—Meath Hospital, House of Industry Hospitals, Dr. Steevens's Hospital, Jervis-street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, Mater Misericordiæ Hospital, St. Mark's Ophthalmic Hospital, the National Eye and Ear Infirmary. Students who shall have diligently attended the practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed, on special application to the Board of Trinity College, to count those two years as equivalent to one year spent in a recognised metropolitan hospital. N.B.—The recognition of these schools and hospitals is conditional on their students being furnished with *bonâ fide* certificates of an amount of regular attendance equivalent to that required by the University—viz., three-fourths of the entire number of lectures in each course.

The qualifying course of Practical Midwifery consists of six months' instruction, including clinical lectures. Certificates of Practical Midwifery are received from (1) the Rotundo Hospital, (2) the Coombe Hospital, (3) Sir Patrick Dun's Hospital Maternity, and (4) Dr. Steevens' Hospital Maternity.

DEGREE EXAMINATIONS.

1. *Bachelor in Medicine.*—The candidate for the M.B. examination must have previously passed the Previous Medical Examination in all the subjects; and have lodged with the Medical Registrar, on a certain day to be duly advertised before the examination, certificates of attendance upon all the courses of study prescribed in the preceding curriculum. Candidates are then required to pass a final examination in the following subjects:—Physiological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Institutes of Medicine (Pathology and Hygiene), Therapeutics. The fee for the *Licentiat Examinandum* is £5. The fee for the degree of M.B. is £11.

2. *Doctor in Medicine.*—A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the degree of Bachelor in Medicine for three years. He must also read a thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic, according to regulations to be approved by the Provost and Senior Fellows. Total amount of fees for this degree, £13.

3. *Bachelor in Surgery.*—A Bachelor in Surgery must be a

Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also have passed the M.B. examination, before presenting himself at the B.Ch. examination, having previously completed the prescribed curriculum of study. The curriculum comprises the following, in addition to the complete course for the degree of Bachelor in Medicine:—Operative Surgery, one course; Dissections, two courses; Ophthalmic Surgery, one course. Candidates are required to perform surgical operations on the dead subject, and will also be examined in Bandaging and Minor Surgery, and in Surgical Pathology. Fee for the *Licent ad Examinandum*, £5. Fee for the degree of Bachelor in Surgery, £5.

4. *Master in Surgery.*—A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the degree of Bachelor in Surgery for three years; and must read a thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the degree of Master in Surgery, £11.

5. *Master in Obstetric Science.*—A Master in Obstetric Science must have passed the M.B. and B.Ch. examinations, and produce certificates of having completed the following curriculum:—1. One winter course in Midwifery. 2. Six months' practice in a recognised lying-in hospital or maternity. 3. A summer course in Obstetric Medicine and Surgery. 4. Two months' practice in the Cow-pock Institution. Existing graduates in Medicine, of the standing of M.D., are entitled to present themselves for examination without complying with Regulations 3 and 4. Fee for the degree of Master in Obstetric Science, £5.

UNIVERSITY LICENCES.

Candidates for the licences in Medicine, Surgery, or Obstetric Science must be matriculated in Medicine, and must have completed two years in Arts, and four years in Medical studies.

1. *Licentiate in Medicine.*—The medical course and examination necessary for the licence in Medicine are the same as for the degree of M.B. A Licentiate in Medicine, on completing his course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine on paying the degree fees without further examination in Medicine. Fee for the *Licat ad Examinandum*, £5. Fee for the licence in Medicine, £5.

2. *Licentiate in Surgery.*—The surgical course and examination necessary for the licence in Surgery are the same as for the degree of Bachelor in Surgery. Fee for the *Licat ad Examinandum*, £5. Fee for the licence in Surgery, £5.

3. *Licentiate in Obstetric Science.*—The course and examination for the licence in Obstetric Science are the same as for the degree in Obstetric Science. Fee for the licence in Obstetric Science, £5.

10. ROYAL UNIVERSITY OF IRELAND.

The regulations concerning the degrees in Medicine, Surgery, etc., granted by this University are as follow:—

M.B. DEGREE.

The course for this degree shall be one of at least four years' duration.

All candidates for the degree shall, in addition to attending the lectures and complying with the other conditions to be from time to time prescribed, be required to pass the following examinations:—The Matriculation Examination; the First University Examination; the First Examination in Medicine; the Second Examination in Medicine; the Degree Examination.

A medical student from one of the Queen's Colleges, the Queen's University, or any other institution approved by the Senate, matriculated therein before October 1, 1881, who has completed at least one year of the medical curriculum in any of said Colleges, or in said University or institution, shall be entitled to credit for a year's course in this University without passing the First Examination in Arts.

The course of medical studies shall extend over at least four years, and shall be divided into periods of at least two years each, during which periods the students shall attend such courses of lectures and hospital instruction, and comply with such other conditions, as the Senate shall from time to time order. Until further order—

The first period shall comprise attendance on the following courses of medical lectures:—Chemistry, one course of at least six months; Practical Chemistry, a course of at least three months' work in a chemical laboratory; Botany, with Herborisation for practical study, and Zoology; Anatomy and Physiology; Practical Anatomy; Materia Medica.

The second period shall comprise attendance on the following courses of medical lectures:—Anatomy and Physiology, including Histology; Practical Anatomy; Theory and Practice of Surgery; Midwifery and Diseases of Women, a six months' course; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates are further required to have attended during the first period:—

Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week, during a winter session of six months.

And during the second period—

Practical Midwifery.—A certificate of having attended at a recognised midwifery hospital, where clinical instruction in Midwifery and Diseases of Women and Children is given, for a period of six months; or of having attended for six months at a midwifery dispensary where similar clinical instruction is given. The certificate in each case to state that the candidate has attended at twenty labours.

Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, during eighteen months, including either three winter sessions of six months each, or two winter sessions of six months each and two summer sessions of three months each.

In addition to the above-mentioned certificates of attendance at hospitals, candidates will be also required before presenting themselves for the Degree Examination to produce the following certificates:—(i.) A certificate of personal attendance on fever cases, such certificate to be signed by the physician under whose superintendence the cases were attended. (ii.) A certificate of having compounded medicine under an apothecary or pharmaceutical chemist for at least three months. (iii.) A certificate of having received practical instruction in Vaccination. (iv.) A certificate of having attended a course of lectures (not less than twenty-five in number) and clinical instruction on Mental Diseases.

The Senate further recommend that students should avail themselves of opportunities of attendance on lectures on Diseases of the Eye, Ear, and other special departments of Medicine and Surgery.

Candidates for Honours must satisfy the examiners at the Pass Examinations before they can be permitted to compete for Honours; and their answering at the Pass Examination will be taken into account in determining the class of Honours which shall be awarded to them.

THE FIRST EXAMINATION IN MEDICINE.

Students shall be admitted to this examination after the lapse of one academical year from the time of their matriculation. Candidates may pass this examination at the same time as the First University Examination.

The subjects of this examination shall be:—Zoology; Botany; a Modern Language. Candidates who have passed in a Modern Language at the ordinary First University Examination are exempt from presenting this subject.

Before being admitted to this examination, each candidate must produce satisfactory evidence of having completed the prescribed courses of study in the subjects of examination.

The examination in Zoology will consist of questions on the anatomy and classification either of the vertebrate or invertebrate animals—the selection between these two groups to be made by the candidates at the time of examination. They are recommended to read Huxley's "Manuals of the Anatomy of Vertebrate and Invertebrate Animals."

The examination in Botany will comprise the general principles of the structure and classification of plants. They may use as text-books Oliver's "Lessons in Elementary Botany," and Thomé's "Structural and Physiological Botany."

THE SECOND EXAMINATION IN MEDICINE.

Students shall be admitted to this examination after the lapse of one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies.

The subjects for this examination shall be:—Anatomy; Physiology; Materia Medica; Chemistry.

THE EXAMINATION FOR THE DEGREE OF M.B.

Students shall be admitted to this examination after the lapse of one academical year from the time of passing the Second Examination in Medicine, provided they have completed the second period of the course of medical studies.

The subjects for this Examination shall be—Anatomy and Physiology; Surgery; Midwifery and Diseases of Women and Children; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates intending to present themselves at any one of the above examinations must give notice in writing, to the Secretaries, of their intention to present themselves, and must pay the prescribed fee at least one month previous to the examination, and must at the same time furnish evidence of having completed the course of studies prescribed by the Senate for the second period of the course of medical studies.

The fee for the first examination is £1; for the second examination, £1; and for the third, £3.

M.D. DEGREE.

Candidates may be admitted to this degree after the lapse of two academical years from the time of obtaining the degree of M.B. Provided, however, that all persons who shall be students in Medicine in the Queen's University at the date of its dissolution shall be entitled, if they so desire, to obtain the degree of M.D., instead of the degree of M.B., upon passing the examination herein prescribed for the M.B. Degree.

Candidates must give notice in writing, to the Secretaries, of their intention to present themselves, and must pay the prescribed fee of £5, at least one month previous to the examination, and must at the same time produce a certificate of having been, for at least two years, engaged in hospital or private medical or surgical practice, or in the Military or Naval Medical Service.

Every candidate shall be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment; to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon.

Every candidate shall submit to the Medical Examiners, for their approval, a thesis certified by him (or her) to have been composed by himself (or herself). No thesis shall be approved which does not contain some original or personal observations in Practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum, or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

Candidates who have been settled for a period of two years in the colonies or foreign countries may, on satisfying the Senate to that effect, and in lieu of the examination above required to be passed by persons residing in this country, upon furnishing papers on medical subjects written by them, or official reports dealing with subjects of medical science, with evidence of the papers or reports being their own original composition, have the degree conferred on them in absence.

It shall, for three years, be in the power of the Senate, in the case of medical students who, previous to their matriculation in the University, have received a Medical and Arts ducation in institutions approved by the Senate, to give such students credit for the education in Arts which they have received therein, if they shall be satisfied, from the report of the Medical Examiners, of their proficiency in the subjects of the medical course of the University.

It shall also, for the same period, be in the power of the Senate, in cases where a complete course in Arts and Medicine has been passed by a student in such institutions as aforesaid, according to the system of such institutions, to allow him to present himself for the Examination for the Degree of M.B., and to obtain such degree, if found qualified, upon the same terms as ordinary medical students of this University.

THE M.CH. DEGREE.

This degree shall be conferred only on graduates in Medicine of the University.

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £5 at least one month previous to the examination.

The examination for this degree shall comprise the Theory and Practice of Surgery, including Operative and Clinical Surgery.

THE DIPLOMA IN OBSTETRICS.

This diploma shall be conferred only on graduates in Medicine of the University.

Candidates must give notice, in writing, to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previous to the examination.

The examination for this diploma shall comprise the Theory and Practice of Midwifery, and the use of obstetrical instruments and appliances.

THE DIPLOMA IN SANITARY SCIENCE.

This diploma shall be conferred only on graduates in medicine of the University.

Candidates must give notice in writing to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2, at least one month previous to the examination.

The examination shall embrace the following subjects:—Climate: A general knowledge of meteorological conditions; the reading and correction of instruments, and tabulating the results of meteorological observations. Chemistry: Constitution of the atmosphere; pure and impure waters; food. Geology: The character and structure of rocks with reference to water-supply and drainage. Physics: Laws of heat; mechanics, pneumatics, hydrostatics, and hydraulics, or sanitary engineering. The construction of dwellings, barracks, hospitals, schools, factories, etc., in accordance with the principles of warming, ventilation, drainage, water-supply, etc. Vital Statistics. Hygiene, including the causation and prevention of disease. Sanitary Law.

The examination in Chemistry shall include a practical part on the chemical and microscopical examination of air, water, food, poisonous substances used in manufactures, etc.

The examination in Physics shall embrace the reading of plans, sections, scales, etc., in connexion with buildings, sanitary constructions, etc.

Exhibitions.—At the First Examination in Medicine, two first-class at £30, and two second-class at £15. At the Second Examination in Medicine, two first-class at £40, and three second-class at £20. At the M.B. Degree Examination, two first-class at £50, and three second-class at £25. Provided that an exhibition shall not be awarded to any candidate at the First Examination in Medicine if a longer interval than three academical years shall have elapsed from the time of matriculation; nor at the Second Examination in Medicine, if a longer interval than two academical years shall have elapsed from the time of passing the First Examination in Medicine; nor at the M.B. Degree Examination if a longer interval than three academical years shall have elapsed from the time of passing the First Examination in Medicine.

Prizes.—A sum of £35 may be placed annually at the disposal of the Examiners in Medicine, to be awarded in prizes for superior answering in special subjects, at their discretion.

(B.)
BODIES GIVING LICENCES OR OTHER FORMS OF QUALIFICATION NOT BEING DEGREES IN MEDICINE.

A.—England.

1. THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

The following very important modifications have been made in the regulations for the Licence of this great body. They have reference to all students beginning their studies after March, 1880.

THE Licence of this College is a qualification to practise Medicine, Surgery, and Midwifery, and is recognised by the Local Government Board as a qualification in Surgery as well as in Medicine.

The College will, under its charter, grant licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery (which licences are not to extend to make the Licentiates Members of the Corporation), to persons who shall conform to the following by-laws.

I.—Every candidate for the College licence (except when

otherwise provided by the by-laws) who shall commence professional study after March 25, 1880, will be required, at the times prescribed in Section II. for the respective examinations, to produce satisfactory evidence:—

1. Of having passed, before the commencement of professional study, one of the preliminary examinations on subjects of general education recognised by the General Medical Council.

2. Of having been registered as a medical student in the manner prescribed by the General Medical Council, at least forty-five months previously to admission to the third or final examination, unless specially exempted. *Note A.*—Professional studies commenced before registration, except in the cases of Chemistry, Materia Medica, Botany, and Pharmacy, will not be recognised.

3. Of having been engaged in professional studies at least forty-five months, during which not less than three winter sessions and two summer sessions shall have been passed at one or more of the medical schools recognised by the College. One winter session and two summer sessions may be passed in one or more of the following ways:—*a.* Attending the practice of a hospital, infirmary, or other institution duly recognised as affording satisfactory opportunities for professional study. *b.* Receiving instruction as a pupil of a legally qualified practitioner having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery. *c.* Attending lectures on one or more of the required subjects of professional study at a duly recognised place of instruction.

4. Of having received instruction in Chemistry, including Chemical Physics, meaning thereby heat, light, and electricity.

5. Of having received instruction in Practical Chemistry.

6. Of having received instruction in Materia Medica.

7. Of having received instruction in Botany.

8. Of having received instruction in Practical Pharmacy. *Note B.*—By this is meant instruction in Practical Pharmacy by a registered medical practitioner, or by a member of the Pharmaceutical Society of Great Britain, or in a public hospital, infirmary, or dispensary.

9. Of having attended a course of lectures on Anatomy.

10. Of having performed Dissections during not less than twelve months.

11. Of having attended a course of lectures on General Anatomy and Physiology.

12. Of having attended a separate practical course of General Anatomy and Physiology.

13. Of having attended a course of lectures on the Principles and Practice of Medicine.

14. Of having attended a course of lectures on the Principles and Practice of Surgery.

15. Of having attended a course of lectures on Midwifery and Diseases peculiar to Women. A certificate must also be produced of attendance on not less than twenty labours, which certificate must be signed by one or more legally qualified practitioners.

16. Of having undergone systematic practical instruction in the departments of Medicine, Surgery, and Obstetric Medicine. *Note C.*—Under this clause the candidate will be required to show that he has been personally exercised in practical details, such as—1) The application of anatomical facts to the investigation of disease; 2) the methods of examining various organs in order to detect the evidence of disease or the effects of accidents; (3) the employment of instruments and their diagnosis and treatment; (4) the examination of normal and diseased structures, whether recent or in a museum; 5) the chemical examination of morbid products; (6) operations on the dead body; (7 post-mortem examinations.

17. Of instruction and proficiency in the practice of vaccination. *Note D.*—The certificate must be such as will qualify its holder to contract as a public vaccinator under the regulations, at the time in force, of the Local Government Board.

18. Of having attended a course of lectures on Pathological Anatomy.

19. Of having attended demonstrations in the post-mortem room during the whole period of attendance on clinical lectures (see Clause 22).

20. Of having attended a course of lectures on Forensic Medicine.

21. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and Surgery during three winter and two summer sessions. *Note E.*—No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of clinical instruction in the wards of a recognised lunatic hospital or asylum may be substituted for the same period of attendance in the medical wards of a general hospital.

22. Of having attended during nine months clinical lectures on Medicine, and also during nine months clinical lectures on Surgery; and of having been engaged during a period of three months in the clinical study of Diseases peculiar to Women.

23. Of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during other six months. *Note F.*—These duties may be discharged at a general hospital, infirmary, or dispensary, or parochial or union infirmary, duly recognised for this purpose, or in such other manner as shall afford sufficient opportunity for the acquirement of practical knowledge.

The certificates of attendance on the several courses of lectures must include evidence that the student has attended examinations in each course.

II.—*Professional Examinations.*—There are three professional examinations, called herein the First Examination, the Second Examination, and the Third or Final Examination, each being partly written, partly oral, and partly practical. These examinations will be held in the months of January, April, July, and October, unless otherwise appointed.

The First Examination.—The subjects of the First Examination are—Chemistry and Chemical Physics, meaning thereby heat, light, and electricity; Materia Medica, Medical Botany, and Pharmacy; Osteology. (Schedules indicating the range of subjects in the examinations, in Chemistry and in Materia Medica, Medical Botany, and Pharmacy, may be obtained together with the regulations.) A candidate will be admitted to the First Examination on producing evidence of having been registered as a medical student by the General Medical Council, and of having complied with the regulations prescribed in Section I., Clauses 4, 5, 6, 7, and 8. The fee for admission to the First Examination is £5 5s., being part of the entire fee for the licence; and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the First Examination will not be re-admitted to examination until after the lapse of three months from the date of rejection.

The Second Examination.—The subjects of the Second Examination are Anatomy and Physiology. (A schedule indicating the range of subjects in the examination in Physiology may be obtained with the regulations.) A candidate will be admitted to the Second Examination on producing evidence of having passed the First Examination, of having completed, subsequently to registration as a medical student, eighteen months of professional study at a recognised medical school or schools, and of having complied with the Regulations prescribed in Section I., Clauses 9, 10, 11, and 12. The fee for admission to the Second Examination is £5 5s., being part of the entire fee for the licence; and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the Second Examination will not be re-admitted to examination until after the lapse of not less than three months from the date of rejection.

The Third or Final Examination.—The College does not admit to the Third or Final Examination any candidate (not exempted from registration) whose name has not been entered in the Medical Students' Register at least forty-five months, nor till the expiration of two years after the passing of the Second Examination. The subjects of the Final Examination are—Medical Anatomy and Pathology, and the Principles and Practice of Medicine and Therapeutics; Surgical Anatomy and Pathology, and the Principles and Practice of Surgery; Midwifery, and Diseases peculiar to Women. Forensic Medicine, Public Health, and Therapeutics are subjects included in the Final Examination. A candidate will be admitted to the Third or Final Examination on producing evidence—(1) Of being twenty-one years of age; (2) of moral character; (3) of having passed the Second Examination; (4) of having studied Medicine, Surgery, and Midwifery in accordance with the regulations prescribed in Section I., Clauses 3 and 13 to 23. The fee for admission to the Third or Final Examination is £5 5s., being part of the entire fee for the licence, and if a candidate be rejected, he will be required to pay an additional fee of £3 3s. before re-admission to the examination. A candidate rejected in the Third or Final Examination will not be re-admitted to examination until after the lapse of six months from the date of rejection.

The fee for the licence is £15 15s.

Any candidate who shall produce satisfactory evidence of having passed an examination on any of the subjects of the First Examination, conducted at a university in the United Kingdom, in India, or in a British colony, will be exempt from re-examination on those subjects in which he has passed.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on those subjects.

Any candidate who shall produce satisfactory evidence of having passed an examination on Anatomy and Physiology required for a degree in Medicine or Surgery at a university in the United Kingdom, in India, or in a British colony, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on those subjects.

Any candidate who shall have obtained a degree in Surgery at a university in the United Kingdom, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery.

Any candidate who shall have passed the examination on Surgery conducted by the Royal College of Surgeons of England, or the Royal College of Surgeons of Edinburgh, or the Royal College of Surgeons in Ireland, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt

from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery.

Any candidate who shall have obtained a foreign qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

2. THE ROYAL COLLEGE OF SURGEONS, ENGLAND.

By far the most important qualification in this country is that of the Royal College of Surgeons of England, inasmuch as almost all English and many Scottish and Irish students become candidates for the Membership of that body. The College consists of two grades—Fellows and Members. The Fellowship is still partly honorary, sometimes being conferred on Members of a certain standing, but is now only obtainable by examination. The Membership is the qualification sought by students leaving their hospitals, hence the importance of the following regulations:—

SECTION I. *Preliminary General Education and Examination.*

I. Candidates are required, before the commencement of their professional education, to pass a preliminary examination recognised by the General Medical Council, and to obtain a certificate of having been registered by that Council. N.B.—In the case of any colonial, Indian, or foreign student, not registered by the General Medical Council, the conditions of admission to the professional examinations for the diploma will be determined by the Council of the College.

SECTION II. *Professional Education.*

I. The following are recognised modes of commencing professional education:—

1. Attendance on the practice of a hospital or other public institution recognised by this College for that purpose.
2. Instruction as the pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council.
3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

II. Candidates, prior to their admission to the first or primary examination on Anatomy and Physiology, will be required to produce the following certificates, viz.:—

1. Of having, prior to the commencement of professional study, been registered by the General Medical Council.
2. Of having attended lectures on Anatomy during two winter sessions.
3. Of having performed Dissections during not less than two winter sessions.
4. Of having attended lectures on General Anatomy and Physiology during one winter session.
5. Of having attended a practical course of General Anatomy and Physiology during another winter or a summer session, consisting of not less than thirty meetings of the class.

Note A.—By the practical course referred to in Clause 5, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not hereby intended that the learners shall perform dissections.

Note B.—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

III. Candidates, prior to their admission to the second or pass examination on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, will be required to produce the following certificates, viz.:—

1. Of being twenty-one years of age.
2. Of having been engaged, subsequent to the date of registration by the General Medical Council, during four years, or during a period extending over not less than four winter and four summer sessions, in the acquirement of professional knowledge.
3. Of having attended lectures on Surgery during one winter session.
4. Of having attended a course of Practical Surgery during a period occupying not less than six months prior or subsequent to the course required by the preceding Clause 3.

Note C.—The course of Practical Surgery referred to in Clause 4 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person, or on the dead body. The methods of proceeding and the manipulations necessary in order to detect the effects of diseases and accidents, on the living person, or on the dead body. The performance, where practicable, of the operations of surgery on the dead body. The use of surgical apparatus. The examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy, and otherwise.

5. Of having attended one course of lectures on each of the following subjects, viz.:—Chemistry, Materia Medica, Medicine, Forensic Medicine, Midwifery (with practical instruction, and a certificate of having personally conducted not less than ten labours); Pathological Anatomy during not less than three months.

Note D.—The course of lectures on Chemistry included in Clause 5 will not be required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

6. Of having studied Practical Pharmacy during three months.
7. Of having attended a three months' course of Practical Chemistry (with manipulations), in its application to medical study.
8. Of instruction and proficiency in the practice of Vaccination.

Note E.—The certificates of instruction in Vaccination must be such as will qualify its holder to contract as a public vaccinator under the regulations at the time in force of the Local Government Board.

Note F.—The certificates of attendance on the several courses of lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

9. Of having attended, at a recognised hospital or hospitals, the practice of Surgery during three winter and two summer(b) sessions.
10. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.

Note G.—It is intended that the candidate should receive the instruction required by Clause 10 at an early period of his attendance at the hospital.

11. Of having, subsequently to the first winter session of attendance on surgical hospital practice, attended, at a recognised hospital or hospitals, clinical lectures on Surgery during two winter and two summer sessions.
12. Of having been a dresser at a recognised hospital, or of having, subsequently to the completion of one year's professional education, taken charge of patients under the superintendence of a surgeon during not less than six months, at a hospital, general dispensary, or parochial or union infirmary recognised for this purpose, or in such other similar manner as, in the opinion of the Council, shall afford sufficient opportunity for the acquirement of Practical Surgery.
13. Of having attended, during the whole period of attendance on surgical hospital practice (see Clause 9), demonstrations in the post-mortem rooms of a recognised hospital.
14. Of having attended, at a recognised hospital or hospitals, the practice of Medicine, and clinical lectures on Medicine, during one winter and one summer session.

N.B.—Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

SPECIAL NOTICE.

It is of great importance to students to observe the following new regulations:—

The following regulations relating to the diploma of Member of the College have been adopted by the Council of the College, viz.:—

I. Candidates commencing their professional studies on or after October 1, 1882, and pursuing those studies in recognised medical schools in England, will be required, before presenting themselves for the Primary or Anatomical and Physiological Examination for the diploma of Member of the College, to produce certificates of having passed an examination in Elementary Anatomy and Physiology, such examination to be conducted by their teachers at the several medical schools.

1. The periods at which the examination shall be held will be determined by the teachers at the several medical schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the examination, and the date of their presenting themselves for the Primary Examination at the College.
2. It shall be left to the teachers at the several medical schools to determine the nature and extent of the examination in Elementary Anatomy and Physiology.

II. Candidates commencing their professional education on or after October 1, 1882, will not be admitted to the second or Pass Examination until after the expiration of two years from the date of their passing the Primary or Anatomical and Physiological Examination for such diploma, except in the following cases, viz.:—

1. When a candidate, before presenting himself for the primary examination, shall possess a recognised degree or diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma.
2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the primary examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the primary examination for the Fellowship, it being required in such case that not less than one year of attendance on the Surgical Practice of a recognised hospital shall intervene between the date of his passing the primary examination for the Fellowship and the date of his presenting himself for the second or pass examination for the diploma of Member.
3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the primary examination at the end of his second winter session of attendance at a recognised medical school, provided that in his case not less than one year shall elapse between the date of his passing the primary examination and the date of his presenting himself for the second or pass examination for the diploma of Member.
4. When a candidate, owing to illness duly certified by one or more of the teachers of his medical school, shall be prevented from presenting

(a) The winter session comprises a period of six months, and, in England, commences on October 1, and terminates on March 31.

(b) The summer session comprises a period of three months, and, in England, commences on May 1, and terminates on July 31.

himself for the primary examination on the completion of his second year of professional study.

5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the primary examination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether in such case the candidate shall or shall not be required to comply with the regulation.

Section III.

I. Certificates will not be received on more than one branch of science from one and the same lecturer; but Anatomy and Dissections will be considered as one branch of science.

II. Certificates will not be recognised from any hospital in the United Kingdom unless the surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any school of Anatomy and Physiology or Midwifery, unless the teacher in such school be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any school of Surgery, unless the teachers in such school be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

III. No metropolitan hospital will be recognised by this College which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients.

IV. The recognition of colonial hospitals and schools is governed by the same regulations, with respect to number of patients and to courses of lectures, as apply to the recognition of provincial hospitals and schools in England.

V. Certificates of attendance upon the practice of a recognised provincial or colonial hospital, unconnected with, or not in convenient proximity to, a recognised medical school, will not be received for more than one winter and one summer session of the hospital attendance required by the regulations of this College; and in such cases clinical lectures will not be necessary, but a certificate of having acted as dresser for a period of at least six months will be required.

VI. Those candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the College of Surgeons in Ireland, from candidates for their diploma, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, of during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge; and in the case of candidates who shall have pursued the whole of their studies at recognised foreign or colonial universities, upon the production of the several certificates required for their degree by the authorities of such universities, together with a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of passing the preliminary examination, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

VII. Members or licentiates of any legally constituted College of Surgeons in the United Kingdom, and graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their diploma, licence, or degree, together with proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

VIII. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College will be admitted to examination on adducing, together with their diploma or degree, proof of being twenty-one years of age, a certificate of instruction and proficiency in the practice of vaccination, and satisfactory evidence of having been occupied, subsequently to the date of registration by the General Medical Council, at least four years, or during a period extending over four winter and four summer sessions, in the acquirement of professional knowledge.

Section IV. *Professional Examination.*

This examination is divided into two parts.

1. The first or primary examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body.

2. The second, or pass examination, on Surgical Anatomy and the Principles and Practice of Surgery, Medicine, and Midwifery, (c) is partly written, partly oral, and partly on the practical use of surgical apparatus, and the practical examination of patients.

3. The primary examinations are held in the months of January, April, May, July, and November, and the pass examinations generally in the ensuing week, respectively. (d)

4. Candidates will not be admitted to the primary examination until after the termination of the second winter session of their attendance at a recognised school or schools; nor to the pass, or surgical examination, until after the termination of the fourth year of their professional education.

5. The fee of £5 5s., paid prior to the first admission to the primary examination, is retained whether the candidate pass or fail to pass the examination, but is allowed as part of the whole fee of £22 (e) payable for the diploma. A candidate, after failure at any primary examination, is required, on admission to any subsequent primary examination, to pay a further fee of £1 1s., which is retained, whether he pass or fail to pass the examination, and which further fee is not allowed as part of the whole fee of £22 for the diploma.

6. The fee of £15 15s. is payable prior to each admission to the pass examination; but on each occasion of failure the balance of £11 10s. is returned to the candidate.

7. A candidate having entered his name for either the primary or pass examination, who shall fail to attend, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend.

8. A candidate referred on the primary examination is required, prior to his admission to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during not less than three months subsequently to the date of his reference. (d)

9. A candidate referred upon the primary examination, who shall not obtain more than half of the total minimum number of marks, is not re-admitted to examination until after the lapse of six months, and is then required to produce a certificate of the performance of dissections during not less than three months, and of having pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during six months subsequently to the date of his reference. (d)

10. A candidate referred on the pass examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the surgical practice of a recognised hospital, together with lectures on Clinical Surgery, subsequently to the date of his reference. (d)

11. A candidate, referred on the pass or surgical examination for the diploma of Member, who shall have exhibited such extreme ignorance in the examination as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, is required, before his admission to re-examination, to produce a certificate of having attended the surgical practice and clinical lectures on surgery of a recognised hospital for a further period of nine or twelve months, as the Court shall determine. (d)

(c) Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions, viz.:—(1. The production by the candidate of a degree, diploma, or licence in Medicine and Midwifery entitling him to register under the Medical Act of 1858; or a degree, diploma, or licence in Medicine and Midwifery of a colonial or foreign university approved by the Council of the College. (2.) A declaration by the candidate, prior to his admission to the pass examination, that it is his intention to obtain either of the qualifications in Medicine and Midwifery mentioned in the foregoing paragraph, in which case the diploma of the College will not be issued to him until he shall produce either the said qualification or proof of having passed the several examinations entitling him to receive the same.

(d) The required certificates, whether for the primary or pass examination, must be forwarded through the post not less than fourteen clear days prior to the date of each examination; except in the case of a referred candidate whose term of additional study will not expire until the date of the examination, in which case a written application must be sent in by him fourteen clear days before the date of the examination in lieu of the certificates, such certificates to be produced the day before the examination.

(e. This sum of £22 is exclusive of the fee of £2 paid for the preliminary examination.

3. SOCIETY OF APOTHECARIES (ENGLAND).

Every candidate for a certificate of qualification to practise as an apothecary will be required to produce testimonials—1. Of having passed a preliminary examination in Arts, as a test of general education. 2. Of having attained the full age of twenty-one years. 3. Of good moral conduct. 4. A certificate of three months' Practical Pharmacy from some recognised hospital or dispensary, or from a qualified medical practitioner. 5. Of having pursued a course of medical study in conformity with the regulations of the Court.

Course of Study.—Every candidate must attend the following lectures and medical practice: each winter session to consist of not less than six months, to commence on the 1st and not later than the 15th of October; each summer session to commence on the 1st and not later than the 15th of May.

First Year.—Winter Session: Chemistry; Anatomy and Physiology, including Dissections and Demonstrations. Summer

Session: Botany; Materia Medica and Therapeutics; Practical Chemistry.

Second Year.—Winter Session (a): Anatomy and Physiology, including Dissections and Demonstrations; Clinical Medical Practice. Summer Session: Midwifery and Diseases of Women and Children; Forensic Medicine and Toxicology; Clinical Medical Practice

Third Year.—Winter Session: Clinical Medical Lectures; Morbid Anatomy; Pathology and Clinical Medical Practice. Summer Session: Practical Midwifery and Vaccination; Morbid Anatomy Clinical Medical Practice.

No certificates of lectures, or of anatomical instructions delivered in private to particular students apart from the ordinary classes of recognised public medical schools, can be received by the Court of Examiners.

SYLLABUS OF SUBJECTS FOR EXAMINATION IN ARTS.

1. *The English Language*—Including grammar and composition; writing sentences in correct English upon a given theme; writing correctly from dictation; explaining the construction of sentences; pointing out the grammatical errors in sentences ungrammatically expressed; giving the derivation and definition of words in common use.

2. *English History*—From the accession of Henry VII. to that of James I.

3. *Modern Geography*—Including the elements of physical geography.

4. *The Latin Language*—Including translations from the original, and grammar. January Examination: Cæsar's Commentaries, Books IV. and V. April Examination: Virgil—Georgics, Book IV. September Examination: Cicero—De Senectute.

5. *Mathematics*—Arithmetic, including Vulgar and Decimal Fractions. Algebra, including Simple Equations. The First Two Books of Euclid, or the subjects thereof.

6. *Elementary Mechanics*—Of Solids and Fluids, comprising the elements of Statics, Dynamics, and Hydrostatics. The candidate is allowed to pass this subject either as preliminary or before or at the first professional examination

7. *(a) Greek*—Xenophon: Cyropædia, Book V. Grammatical questions. *(b) French*—Prosper Mérimée: Colomba. Translation from English into French. Grammatical questions. *(c) German*—Goethe: Egmont. English into German. Grammatical questions. *(d) Elementary Chemistry*—Inorganic.

Professional Examinations.—The Court of Examiners meet in the Hall every Wednesday and Thursday, where candidates are required to attend at 4.30 p.m. Every candidate intending to offer himself for examination must give seven days' notice previous to the day of examination, and must at the same time deposit all the required certificates, with the fee, at the office of the Beadle, where attendance is given daily, from ten to four o'clock; Saturdays excepted.

The certificates being found correct, a card to admit the candidate will be sent, stating the day and hour of examination.

The examination of candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

The first examination which may be passed after the second winter session, embraces the following subjects:—Physicians' Prescriptions and Pharmacy; Anatomy and Physiology, including an examination on the living subject; General and Practical Chemistry; Materia Medica and Botany; Histology.

Testimonials required of Candidates for the First Examination.—Of having passed an examination in Arts, recognised by the Medical Council: of having completed the curriculum of study to the close of the second winter session: of having attended three months' Practical Pharmacy; and of good moral conduct. Any candidate who presents himself for the first examination and is rejected may be admitted to re-examination at the expiration of three calendar months.

The Second Examination.—At the termination of the medical studies: Principles and Practice of Medicine, Pathology and Therapeutics; Midwifery, including the diseases of women and children; Forensic Medicine and Toxicology; Microscopical Pathology.

Certificates required of Candidates for the Second or Final Examination.—Of having completed four years' medical study, including the period spent at the Hospital; of being twenty-one years of age; and of good moral conduct. Of having passed the first examination. Of having completed the prescribed curriculum of study according to the schedule, including a personal attendance of twenty cases of Midwifery, (a certificate of which will be received from any registered practitioner); and of having received instruction in practical Vaccination, and vaccinated not less than twenty cases (this certificate must be obtained from a public vaccinator recognised by the Local Government Board). Of having served the office of clinical clerk at a recognised hospital during the period of six weeks, at least. Of having been examined at the class examinations instituted by the various lecturers and professors of their respective medical schools and colleges. By the 22nd section of the Act of Parliament of 1815, no rejected candidate for the licence can be re-examined until the expiration of six calendar months from his former examination.

Modified Examinations.—1. All graduates in Medicine of British universities will be admitted to a clinical and practical examination in the practice of Medicine, Pathology, and Midwifery. 2. Licentiates of the Royal College of Physicians, London: of the Royal College of Physicians, Edinburgh: of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland: of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a clinical and practical examination in the Practice of Medicine, Pathology, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of the King and Queen's College of Physicians, Ireland; the joint Licence of the Royal Colleges of Physicians and Surgeons, Edinburgh; or for the single Licence of the College of Physicians, Edinburgh; the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first professional examination for the degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, London, or Durham; or the second part of the professional examination for the degree of M.B., or Master in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrews, and Glasgow; or the second examination for medical and surgical degrees in the Irish universities; or the first examination for the Licence of the Apothecaries' Company, Dublin; or the first and second examinations of the Royal College of Physicians of London; the Membership of the Royal College of Surgeons, England, and the first examination of the Royal College of Physicians, London, taken together, will be admitted to a single examination in Anatomy and Materia Medica (to those candidates who have not undergone an examination in those subjects), Practice of Medicine (including Clinical Medicine), Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, which examination will be partly written and partly *viva voce*. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; and the Royal College of Surgeons, Ireland, will have to undergo the two examinations, but will be exempt from writing on Anatomy and Physiology only, in their first examination.

The examination of candidates for certificates of qualification to act as Assistant in compounding and dispensing medicines will be as follows:—In translating physicians' prescriptions; in the British Pharmacopœia; in Pharmacy, Pharmaceutical Chemistry, Materia Medica, and Medical Botany.

By Section 22 of the Act of Parliament, no rejected candidate as an Assistant can be re-examined until the expiration of three calendar months from his former examination.

Fees.—For a certificate of qualification to practise, £6 6s., half of which is retained in case of rejection, to be accounted for at a subsequent examination. For the first examination, £3 3s., which sum is retained in case of rejection, and accounted for subsequently; for the second examination, £3 3s.; for an Assistant's certificate, £2 2s., which sum is retained in case of rejection, and accounted for subsequently.

Prizes are annually offered for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree. Also two prizes for proficiency in the knowledge of Botany, consisting of a gold medal to the candidate who distinguishes himself the most in the examination; and a silver medal and a book or books to the candidate who does so in the next degree.

(a) One course of Principles and Practice of Medicine, and one on the Principles and Practice of Surgery. The latter may be taken at the student's convenience *after* the second year.

B.—Scotland.

In Scotland, besides the Universities, there are three licensing bodies, viz.:—

4. ROYAL COLLEGE OF PHYSICIANS, EDINBURGH;
5. ROYAL COLLEGE OF SURGEONS, EDINBURGH;
6. FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

The first alone can give a qualification in Medicine; the two latter can give only Surgical qualifications. But each of these surgical licensing bodies has joined with the College of Physicians of Edinburgh, so that a candidate can, through a single set of examinations, obtain a qualification both in Medicine and in Surgery. We give the regulations to be observed by candidates for the double qualification of Edinburgh, as there is but little difference between these and the regulations required for the other above-named qualifications

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

The Royal College of Physicians of Edinburgh, and the Royal College of Surgeons of Edinburgh, while they still continue to give their diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the student may obtain the diplomas of both Colleges. The general principle of this joint examination is, that it shall be conducted by a board in which each body is represented in those branches which are common to both Medicine and Surgery; but that the College of Physicians shall take exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. The object of the joint examination is to give to students facilities for obtaining from two separate bodies, and at less expense, a qualification in Medicine and a qualification in Surgery. Students passing that examination successfully will be enabled to register two qualifications under the Medical Act—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh. The arrangement for thus conferring a double qualification by the co-operation of the two Colleges is in conformity with Section XIX. of the Medical Act, and received the special sanction of the General Council of Medical Education and Registration.

Every candidate must have followed his course of study in a university; or in an established school of medicine, as defined below; or in a provincial school specially recognised by the Colleges of Physicians and Surgeons of that division of the United Kingdom in which it is situate.

All candidates must have passed the complete examination in general education, and have had their names inscribed in the Register of Medical Students instituted by the General Medical Council,—at the commencement of their professional studies.

Candidates commencing professional study after September 15, 1866, must have been engaged during forty-five months after passing the examination in general education, in professional study, which period shall include not less than four winter sessions or three winter and two summer sessions' attendance at a recognised medical school, and must have completed the following curriculum:—

Anatomy, two courses of lectures in distinct sessions, six months each, and Practical Anatomy, twelve months; or, at the option of the candidate. Anatomy, one course, six months, and Practical Anatomy, eighteen months.

Chemistry, one course, six months.

Practical *or* Analytical Chemistry, one course, three months.

Materia Medica, one course, three months.

Physiology, not less than fifty lectures.

Practice of Medicine, one course, six months.

Clinical Medicine, one course, six months.

Medicine (a third course, which may either be Practice of Medicine or Clinical Medicine, at the option of the student), one course, six months.

Principles and Practice of Surgery, one course, six months.

Clinical Surgery, one course, six months.

Surgery (a third course, which may either be Principles and Practice of Surgery, or Clinical Surgery, at the option of the student), one course, six months.

Midwifery and Diseases of Women and Children, one course, three months.

Medical Jurisprudence, one course, three months.

Pathological Anatomy, one course, three months.

The candidates must also produce the following certificates:

a. Of having attended six cases of labour under the superintendence of the practitioner who signs the certificate, who must be a registered medical practitioner.

b. Of having attended, for three months, instruction in Practical Pharmacy. The certificate to be signed by the teacher, who must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicines to his patients.

c. Of having attended for twenty-four months a public general hospital containing, on an average, at least eighty patients.

d. Of having attended for six months the practice of a public dispensary specially recognised by either College, or of having been engaged for six months as visiting assistant to a registered practitioner.

e. Of having been instructed in Vaccination. The certificate to be signed by the teacher, who must be a registered practitioner.

Students are strongly recommended to avail themselves of any opportunities which they may possess of attending, in addition to the courses of instruction which are absolutely required, lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy, and of obtaining practical instruction in the use of the Microscope.

There are two professional examinations; each partly in writing and partly oral. The first embraces Anatomy, Physiology, and Chemistry; and no candidate can be admitted to it before the end of his second winter session. The second embraces Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence. No candidate can be admitted to it sooner than forty-five months after passing the examination in general education, or before he has attained the age of twenty-one years.

Candidates who have passed the First Professional Examination in Anatomy, Physiology, and Chemistry, at any of the licensing boards recognised by the Medical Act, will be admissible to the Second Professional Examination on producing certificates of the whole course of study prescribed, of having passed their Preliminary and First Professional Examinations, and of having been registered. If any of the three subjects of the First Professional Examination have been omitted, such candidates will have to undergo an examination on the omitted subjects: and none of the subjects of the Second Examination will be omitted even if some of them should have formed part of the First Examination by another board.

In addition to the written and oral examinations, all candidates shall be subjected to practical clinical examinations in Medicine and Surgery, which shall include the examination of patients, physical diagnosis, the use of the microscope, surgical appliances, bandages, etc.

No candidates shall be admissible to examination who has been rejected by any other licensing board within the three preceding months.

ROYAL COLLEGE OF PHYSICIANS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Candidates passing the examination for the double qualification of these two bodies will be entitled to register two qualifications under the Medical Act, namely—Licentiate of the Faculty of Physicians and Surgeons of Glasgow, and Licentiate of the Royal College of Physicians of Edinburgh. The curriculum of study embraces a course of Medicine, in addition to the subjects required for a diploma of the Faculty.

C.—Ireland.

7. KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

This body consists of Fellows, Members, and Licentiates.

THE LICENCE IN MEDICINE.

The regulations relating to Licentiates are as follows:—Candidates must produce—1. Evidence of having been engaged in the study of Medicine for four years. 2. A certificate of having passed the preliminary examination of one of the recognised licensing corporations before the termination of the second year of medical study. 3. Certificates of having studied at a

school or schools recognised by the College, the following subjects, viz.:—Practical Anatomy, two courses; and Physiology or Institutes of Medicine, Botany, Chemistry, Practical Chemistry, Materia Medica, Practice of Medicine and Pathology, Surgery, Midwifery, Medical Jurisprudence, one course each. 4. Certificates of having attended a medico-chirurgical hospital in which regular courses of clinical lectures are delivered, together with clinical instruction, for twenty-seven months. 5. Of having been in attendance during at least three months on a clinical hospital which contains wards for the treatment of infectious fevers, and of having daily recorded observations on at least five cases of fever.(a) 6. Of having attended Practical Midwifery and Diseases of Women for six months at a lying-in hospital or maternity recognised by the College; or, where such hospital attendance cannot have been obtained during any period of the student's course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; the certificate in either case to state that not less than twenty labour cases have been actually attended. 6. Certificates of character from two registered physicians or surgeons.

A candidate who has already obtained a medical or surgical qualification recognised by the College is only required to produce his diploma or certificate of registration, a certificate of Practical Midwifery, evidence of the study of fever, and testimonials as to character.

Examination for the Licence in Medicine.—The examination consists of two parts. The subjects of the first part, or previous examination, are—Anatomy, Physiology, Chemistry, and Materia Medica. The subjects of the second part, or final examination, are—Practice of Medicine, Medical Jurisprudence, Midwifery, Clinical Medicine, Pathology, Hygiene, and Therapeutics.

Examinations in the first part are held quarterly, in January, April, July, and October. Examinations in the final or second part are held monthly (except in August and September) in the week following the first Friday of each month.

All candidates for the second or final examination (with the exception below specified) (b) are examined in the Practice of Medicine at the bedside in one of the hospitals of Dublin, and in the College by means of printed questions and orally in all the subjects of examination.

Candidates qualified as follows are required to undergo the *second part* of the professional examination *only*, viz.:—1. Graduates in Medicine of a university in the United Kingdom, or of any foreign university approved by the College. 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh, who have been admitted upon examination. 3. Graduates or Licentiates in Surgery. 4. Candidates who, having completed the curriculum above mentioned, have passed the previous professional examination or examinations of any of the licensing corporations in the United Kingdom.

THE LICENCE IN MIDWIFERY.

Candidates already qualified in Medicine or Surgery may apply for permission to be examined for the Licence in Midwifery. The certificates required to be lodged are the same as those required from *qualified* candidates for the Licence to practise Medicine.

Examinations, by printed questions and orally, for the Licence in Midwifery are conducted on the Thursday following the first Friday of each month except August and September.

Fees.—Fee for the licence in Medicine, £15 15s. Fee for licences in Medicine and Midwifery, if taken out within an interval of a month, £16 16s. Fee for the licence in Midwifery, £3 3s. N.B.—The fee for the Licence in Medicine to graduates in Arts and Medicine of any University in the United Kingdom is £5 5s.

MEMBERSHIP.

The qualification of Member is conferred only on those already Licentiates of some standing; consequently it does not fall within the scope of our abstract of regulations.

FELLOWSHIP.

The election for Fellowship takes place twice a year, viz., on the first Friday in April and on St. Luke's Day (October 18). Candidates (who must be Members of the College of one year's standing) must be proposed and seconded three months previously. Fee £35, and £25 stamp duty.

(a) This rule to be enforced in the case of all candidates after January 1, 1881.

(b) Candidates who are registered practitioners of five years' standing are exempted from the written portion of the examination.

8. ROYAL COLLEGE OF SURGEONS, IRELAND.

This body grants two qualifications—that of Fellow, and Letters Testimonial equivalent to a Licentiateship. The regulations relating to the latter are as follows:—

No student can be admitted as a candidate to any examination for the Letters Testimonial until he has been enrolled as a registered pupil of the College, and has also passed a Preliminary Examination.

Candidates for the Letters Testimonial of the College may present themselves either at a Stated or at a Special Examination, as follows:—

STATED EXAMINATIONS.

1st. Stated Examinations shall be held in the months of April, July, and November, commencing on dates of which due notice shall be given beforehand by the Council of the College, and to which *candidates cannot be admitted unless they be registered pupils*, and at which they shall be divided into two classes—Junior and Senior.

2nd. The Junior Class shall produce certificates of having passed a preliminary examination conducted by a board recognised by the General Medical Council, into the curriculum of which the Greek language enters as a compulsory subject; and of having attended three courses of lectures on Anatomy and Physiology; three courses of lectures on Practical Anatomy, with dissections; two courses of lectures on Chemistry; one course of lectures on Materia Medica; one course of lectures on Botany; and one course of lectures on Forensic Medicine.

3rd. This class shall be examined in Anatomy, Histology, Physiology, Materia Medica, and Chemistry.

4th. The fee for this examination shall be £5 5s., in addition to the registration fee of £5 5s.—not to be returned in case of rejection, but to be allowed the candidate in case he presents himself a second time for examination.

5th. The Senior Class shall produce certificates of having attended three courses of lectures on the Theory and Practice of Surgery, one course of lectures on the Practice of Medicine, and one course of lectures on Midwifery: also certificates of attendance at a recognised hospital for three winter and three summer sessions; of instruction in Clinical Ophthalmology, three months; and of attendance for one month at the Cowpock Institution or some other institution approved of by the Council, or under the the instruction of a public vaccinator specially recognised by this College for that purpose.

6th. This class shall be examined in Surgery, Operative Surgery and Surgical Appliances, Practice of Medicine, Medical Jurisprudence, and Prescriptions.

7th. The fee for the Senior Class Examination shall be £15 15s., returnable to the candidate in case of rejection.

8th. Both of these examinations shall be conducted partly by written and partly by oral questions.

9th. In addition to the foregoing fees, a fee of £1 1s. is to be paid to the Registrar on handing each licentiate his diploma.

10th. Every candidate rejected at any of the Stated Examinations, on applying for re-examination, shall be required to pay to the College, in addition to the regular fees, the sum of £2 2s. to reimburse the College the necessary expense of his re-examination.

SPECIAL EXAMINATIONS.

Candidates seeking a Special Examination must make application to the Council, and, if admitted thereto, must pay five guineas, in addition to the fees for Stated Examinations.

The curriculum of education, the subjects for examination, and the mode of carrying out a Special Examination, will be the same as those laid down for the Stated Examinations. The fees are the same as those for the Stated Examinations, as set forth above; and a rejected candidate will only be entitled to receive back £15 15s. of the fees lodged by him.

AMENDED BY-LAWS APPLICABLE TO STUDENTS WHO COMMENCE THEIR STUDIES SUBSEQUENTLY TO MAY 1, 1882.

No student can be admitted as a candidate to any examination for the Letters Testimonial until he shall have been enrolled as a registered pupil of the College and passed the Preliminary Examination.

EXAMINATIONS.

Every candidate shall be required to pass a Preliminary Examination and four Professional Examinations.

The Preliminary Examinations are held quarterly, viz., on the third Wednesday in January, April, July, and October in each year.

PROFESSIONAL EXAMINATIONS.

The First, Second, and Third Professional Examinations shall be held in the July and October of each year.

First Professional Examination.

Candidates are required, before admission to the First Professional Examination, to produce evidence of having passed the Preliminary Examination, and of having been registered as medical students, and of having been engaged in study for at least nine months subsequent to registration.

The examination shall include the following subjects, viz.: —Physics, if not passed at the Preliminary Examination; the elements of Chemistry; Botany (elementary); Anatomy (human osteology); Practical Pharmacy (elementary). The examination lasts two days, and is written and oral.

Second Professional Examination.

Candidates are required, before admission to the Second Professional Examination, to produce evidence of having passed the First Professional Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months. Winter courses: Practical Anatomy, with demonstrations and dissections; Physiology; Surgery; Chemistry (unless attended in first year). Summer Courses, three months: Practical Chemistry; Practical Physiology; Materia Medica.

Candidates shall be examined in: Anatomy—bones, joints, muscles, and topographical anatomy of the viscera of the chest, abdomen, and pelvis. Histology; and the physiology of the circulatory, respiratory, and digestive systems. Surgery—the signs, terminations, and treatment of inflammation; wounds; hæmorrhage; burns and scalds; ulcers; bandaging. Chemistry. Materia Medica.

The examination lasts two days, and is oral and practical.

Third Professional Examination.

Candidates are required, before admission to the Third Professional Examination, to produce evidence of having passed the Second Examination, also certificates of having subsequently attended—Medico-Chirurgical Hospital, nine months as an extern pupil, or six months as a resident pupil. Winter courses: Demonstrations and dissections; Practical Anatomy (unless attended in the first year); Surgery; Medicine. Summer Course, three months: Medical Jurisprudence.

Candidates shall be examined in—Anatomy; Physiology; Surgery (not including Operative, Clinical, and Ophthalmic Surgery, which are reserved for the Final Professional Examination).

The examination lasts three days, and is written, oral, and practical.

Fourth and Final Professional Examination.

The Fourth Professional Examination shall be held in July and October, and in the following April.

Candidates are required, before admission to the Final Examination, to produce evidence of having passed the Third Professional Examination, also certificates of having subsequently attended—Medico-chirurgical Hospital, nine months as extern pupil (or six months as resident pupil, unless a certificate to that effect has been accepted in the third year). Winter courses: Dissections and demonstrations; Midwifery. Certificates will also be required of having attended a midwifery hospital or maternity for six months, and of having been present at thirty labours; Clinical Ophthalmology, three months; Operative Surgery; practical instruction in Vaccination.

Candidates shall be examined in—Surgery (Clinical, Ophthalmic, and Operative, with Surgical Anatomy); Medicine; Midwifery, and Diseases of Women; Medical Jurisprudence.

The examination will last four days—one day written, one oral, one clinical, and the fourth practical (operative).

This body also grants a diploma in Midwifery, for which the following are the regulations:—

Qualifications of Candidates for the Diploma in Midwifery.—Any Fellow or Licentiate of the College shall be admitted to an examination for the diploma in Midwifery upon laying before the Council the following documents:—*a.* A certificate showing that he has attended one course of lectures on Midwifery and Diseases of Women and Children, delivered by a professor or lecturer in some School of Medicine or Surgery recognised by the Council. *b.* A certificate showing that he has attended, during a period of six months, the practice of a lying-in hospital recognised by the Council; or the practice of a dispensary for lying-in women and children recognised by the Council and devoted to this branch of Surgery alone. *c.* A certificate showing that he has conducted thirty labour cases, at least.

Fees to be paid by Candidates for the Diploma in Midwifery.—The candidate pays £1 6*s.* for the Midwifery diploma, provided he takes it out within one month from the date of his letters testimonial; after that date the fee will be £2 2*s.*

9. THE APOTHECARIES' HALL OF IRELAND.

This body grants a licence to practise, on the following conditions:—

1. Of having passed an examination in Arts before one of the recognised public boards previously to entering on professional study.

2. Of having been registered in the Students' Medical Register.

3. Of being at least twenty-one years of age, and of good moral character.

4. Of pupilage to a qualified apothecary, or of having been otherwise engaged in practical pharmacy for a period of twelve months subsequent to having passed the examination in Arts.

5. Of having spent four years, or forty-five months, in professional study from the date of registration in the Students' Register.

6. Of having attended the following courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during one winter session; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Practical Chemistry (in a recognised laboratory), during three months; Materia Medica, during three months; Principles and Practice of Medicine and Therapeutics, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised hospital (attendance upon twenty cases); Surgery, during one winter session; Forensic Medicine, during one summer session; instruction in the practice of Vaccination.

7. Of having attended, at a recognised hospital or hospitals, the practice of Medicine and clinical lectures on Medicine, during two winter and two summer sessions; also the practice of Surgery and clinical lectures on Surgery, during one winter and one summer session.

8. Of practical study, with care of patients, as apprentice pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or with a registered practitioner.

9. Of having performed the operation of vaccination successfully under a recognised public vaccinator.

The examination for the licence to practise is divided into two parts:—The first part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

The professional examinations will be held quarterly, and will commence on the first and second Mondays in the months of January, April, July, and October.

THE INTRODUCTORIES.

THE following are the days and hours of the Introductory Addresses at the Medical Schools, with the names of the respective lecturers:—

Hospital.	Date.	Hour.	Lecturer.
St. George's..	Mon. Oct. 2	.. 4 p.m..	Dr. Herbert Watney.
King's College	,,	.. 4 p.m...	Right Hon. W. H. Smith, M.P.
Middlesex ..	,,	.. 3 p.m..	R. W. Lyell, Esq.
St. Mary's ..	,,	.. 3.30 p.m..	Dr. T. K. Chambers.
St. Thomas's..	,,	.. 3 p.m..	Dr. S. J. Sharkey.
University Coll.	,,	.. 4 p.m..	Marcus Beck, Esq.
Westminster..	,,	.. 3 p.m..	Dr. De Havilland Hall.

LONDON HOSPITALS AND MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians.

Sir G. Burrows, Bart, D.C.L., F.R.S., Dr. Farre, Dr. Harris, Dr. Martin.

Consulting Surgeons—Sir J. Paget, Bart., D.C.L., F.R.S., Mr. Holden.

Physicians.
Dr. Andrew.
Dr. Southey.
Dr. Church.
Dr. Gee.

Assistant-Physicians.
Dr. Dickinson.
Dr. Hensley.
Dr. Brunton, F.R.S.
Dr. Legg.

Physician-Accoucheur.
Dr. Matthews Duncan

Assistant Physician-Accoucheur.
Dr. Godson.

Surgeons.
Mr. Savory, F.R.S.
Mr. Thomas Smith.
Mr. Willett.
Mr. Langton.
Mr. Baker.

Assistant-Surgeons.
Mr. Marsh.
Mr. Butlin.
Mr. Waldham.
Mr. Cripps.
Mr. Shutter.

Ophthalmic Surgeons.
Mr. Power.
Mr. Vernon.

County Physicians—Dr. Nall, Dr. P. Kidd, Dr. Tooth.
Dental Surgeon—Mr. Coleman.
Assistant Dental Surgeons—Mr. Lyons, Mr. Ewbank.
Administrator of Chloroform—Mr. Mills.

LECTURES.

Botany—Rev. George Henslow.
Chemistry and Practical Chemistry—Dr. Russell, F.R.S.
Clinical Medicine—Dr. Andrew, Dr. Southey, Dr. Church, and Dr. Gee.
Clinical Surgery—Mr. Savory, Mr. Thomas Smith, Mr. Willett, Mr. Langton, Mr. Baker.
Comparative Anatomy—Dr. Moore.
Dental Anatomy and Surgery—Mr. Coleman.
Descriptive and Surgical Anatomy—Mr. Langton and Mr. Marsh.
Public Health and Hygiene—Dr. Thorne.
Forensic Medicine—Dr. Southey.
General Anatomy and Physiology—Mr. Morrant Baker.
Histology—Dr. Klein.
Materia Medica—Dr. Brunton.
Medicine—Dr. Andrew and Dr. Gee.
Mental Diseases—Dr. Clave Shaw.
Midwifery and the Diseases of Women and Children—Dr. Matthews Duncan.
Ophthalmic Medicine and Surgery—Mr. Power.
Pathological Anatomy—Dr. Legg.
Surgery—Mr. Savory.

DEMONSTRATIONS.

Anral Surgery—Mr. Cumberbatch.
Chemistry—Dr. Armstrong.
Diseases of the Ear—Mr. Langton.
Diseases of the Eye—Mr. Vernon.
Diseases of the Larynx—Dr. Brunton
Diseases of the Skin—Dr. Legg.
Mechanical and Natural Philosophy—Mr. Wormell.
Morbid Anatomy—Dr. Moore.
Orthopædic Surgery—Mr. Waldham.
Practical Anatomy and Operative Surgery—Mr. Bruce Clarke, Mr. Edwards, and Mr. Lockwood.
Practical Physiology—Dr. V. Harris
Practical Surgery—Mr. Butlin and Mr. Waldham.

Medical Tutor—Dr. S. West

This Hospital comprises a service of 710 beds, of which 676 are in the Hospital in Smithfield, and 34 are for convalescent patients at Lauderdale House, Highgate.

SCHOLARSHIPS AND PRIZES.

Open Scholarships in Science, founded 1872; subjects of examination:—Physics, Chemistry, Botany, Physiology, and Zoology. These Scholarships, of the value of £120 each, tenable for one year, will be competed for on 8 September 26 and following days

Preliminary Scientific Exhibition, founded 1873; subjects of examination—Physics, Chemistry, Botany, and Zoology. This exhibition, of the value of £50, is awarded in October.

Lawrence Scholarship and Gold Medal, of the value of £40, founded in 1823, by the family of the late Sir W. Lawrence

Brackenbury Scholarship in Medicine, and Brackenbury Scholarship in Surgery, founded in 1873 by the will of the late Miss Hannah Brackenbury, who left £2000 for this purpose.

Senior Scholarship of the value of £50—Anatomy, Physiology, and Chemistry.

Junior Scholarships of the value of £50, £30, and £20 are awarded after an examination in the subjects of study of the first year at the end of the summer and winter sessions.

The Jeaffreson Exhibition, of the value of £50, is awarded at the commencement of each winter session, after open competition, on the same days as the Science Scholarships in Classics, Mathematics, and Modern Languages

The Wix Prize is awarded for the best essay on the following subject:—"Limaere."

Hichens Prize: subject of examination—Bishop Butler's Analogy.

Bentley Prizes (two, for the best report of Surgical and Medical Cases occurring in the wards of the Hospital during the previous year. It is expected that the reports will comprise the histories, progress, treatment, and results of not less than twelve cases, with observations thereupon.

Foster Prize: subject of examination—Practical Anatomy, senior

Treasurer's Prize: subject of examination—Practical Anatomy, junior.

Kirkes Gold Medal: subject of examination—Clinical Medicine.

Harvey Prize: subject of examination—Practical Physiology.

FEES.

Whole fee for attendance on lectures and hospital practice £138 12s., payable by instalments—first winter £42, first summer £48 6s., second summer £48 6s.—or a single payment of £131 5s. Payment in either of these ways entitles to a perpetual ticket.

A College for resident students exists in connexion with the Hospital; Warden, Dr. Norman Moore, from whom students will obtain information respecting rooms in the College, or will be advised regarding residence out of the Hospital.

All communications to be addressed to the Warden of the College, St. Bartholomew's Hospital, E.C.

CHARING-CROSS HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Sir Joseph Fayrer, M.D., K.C.S.I., F.R.S., F.R.C.P.
Consulting Surgeons—Mr. E. Canton, F.R.C.S., and Mr. F. Hird, F.R.C.S.

Physicians.
Dr. A. J. Pollock.
Dr. T. H. Green.
Dr. J. Mitchell Bruce.

Assistant-Physicians.
Dr. D. Colquhoun.
Dr. John Abercrombie.
Dr. Montague Lubbock.

Physician-Accoucheur.
Dr. J. Watt Black.

Physician for Skin Diseases.
Dr. A. Sangster.

Medical Registrar.
Dr. Willcocks.

Surgeons.
Mr. R. Barwell.
Mr. E. Bellamy.
Mr. J. Astley Bloxam.

Assistant-Surgeons.
Mr. J. Cantlie.
Mr. J. H. Morgan.
Mr. Stanley Boyd.

Dental Surgeon.
Mr. John Fairbank.

Chloroformists.
Mr. Woodhouse Braine.
Mr. G. H. Bailey.

Surgical Registrar.
Mr. W. J. Rouckel.

LECTURERS AND TEACHERS.

Anatomy—Mr. Edward Bellamy
Minor Surgery—Mr. James Cantlie.
Botany—Dr. D. Colquhoun.
Chemistry & Practical Chemistry—Mr. C. W. Heaton, Demonstrator, Mr. J. J. Broadbent
Clinical Medicine—Dr. Pollock, Dr. Green, and Dr. Bruce.
Clinical Surgery—Mr. Barwell, Mr. Bellamy, and Mr. Bloxam.
Ophthalmic Surgery—The Staff of the Royal Westminster Ophthalmic Hospital.
Comparative Anatomy—Mr. W. A. Forbes.
Demonstrations and Dissections—Mr. James Cantlie.
Dental Surgery—Mr. John Fairbank.
Diseases of Children—Dr. Montague Lubbock.
Forensic Medicine—Dr. John Abercrombie
Physics—Mr. Nelson.
Materia Medica and Therapeutics—Dr. J. Mitchell Bruce.
Mental Diseases—Dr. L. S. Forbes Winslow.
Practical Surgery—Mr. J. A. Bloxam and Mr. J. H. Morgan
Practical Medicine—Dr. Montague Lubbock.
Pathology and Morbid Anatomy—Dr. T. Henry Green.
Physiology—Dr. Wolfenden.
Physiology, Practical—Dr. Wolfenden.
Principles and Practice of Medicine—Dr. A. J. Pollock
Principles and Practice of Midwifery and Diseases of Women—Dr. J. Watt Black.
Principles and Practice of Surgery—Mr. R. Barwell.
Skin Diseases—Dr. A. Sangster.
Surgical Pathology—Mr. J. H. Morgan.

SCHOLARSHIPS, MEDALS, AND PRIZES.

Two Entrance Scholarships, of the value of £30 and £20 respectively, tenable for one year, will be awarded annually in October, after a competitive examination in the following subjects:—Compulsory: English, Latin, French or German, Mathematics. Optional (one of which may be selected): Chemistry, Mechanics, German or French. The subjects (as regards extent and the authors selected) will be the same as those chosen for the Matriculation Examination of the University of London in the June immediately preceding. Candidates must give notice of their intention to compete on or before Wednesday, September 20, 1882. The successful candidates will be required to enter for their medical education at Charing-Cross Hospital.

The Llewellyn Scholarship of £25 is open to all matriculated students who have just completed their second academical year. The examination is held at the end of the second summer session, and includes the following subjects:—Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery.

The Golding Scholarship of £15 is open to all matriculated students who have just completed their first academical year. The examination is held at the end of the first summer session, and includes the following subjects:—Descriptive Anatomy, Physiology, Materia Medica, and Chemistry.

The Pereira Prize of £5 is open to all matriculated students who shall have completed their third academical year. It is awarded to the author of the best Clinical Reports of Cases in the Hospital during the preceding year, Medical and Surgical Cases being selected in alternate years.

Each candidate must produce a certificate of good conduct from the Dean of the Medical School, at the time of giving in his name as a competitor; and the names of the candidates for Scholarships are to be delivered to the Librarian one week before the first day of the examination.

The Governors' Clinical Gold Medal.—The competition for this medal is open to matriculated students who shall have completed, at the end of the current session, their attendance on the Medical and Surgical Practice of the Hospital. Candidates are examined on the subjects of Clinical Lectures delivered during the session, and on Medical and Surgical Cases in the wards of the Hospital.

Silver Medals.—Silver Medals are awarded in all the classes.

Bronze Medals.—Where two sessions' attendance on a course are required, a Bronze Medal is awarded in the junior class, in addition to the Silver one in the senior class.

Certificates of Honour are awarded to both senior and junior students who, not being the most proficient, have yet attained a marked degree of excellence.

FEES.

Total fees, £99 15s., payable by instalments (subject to an abatement of 8 per cent. if paid on joining), if entered for the full period of study—October (on joining), £30 9s., including matriculation fee; May (following), £21; October, £22 1s.; May, £15 15s.; October, £10 10s. Dental Students: October

(on joining), £22 2s., including matriculation fee; October (following), £20—total, £42 2s.

Students are admitted to the Medical and Surgical Practice for the full period required by the University of London, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries (including the clinical courses in both departments), on payment of £31 10s. Non-matriculated students are admitted on payment of the following fees:—Either Medical or Surgical Practice (including the clinical lectures): Three months, £6 6s.; six months, £10 10s.; twelve months, £15 15s.; full period, £21. Both Medical and Surgical Practice (including the clinical lectures): Three months, £10 10s.; six months, £15 15s.; twelve months, £21; full period, £31 10s. For a longer period, £5 5s. for each additional winter, and £3 3s. for each additional summer session.

Special classes for the Preliminary Scientific and first M.B. Examinations of the University of London are held during each winter and summer session.

The hours of lectures have been specially re-arranged to suit the convenience of Dental Students. Charing-cross Hospital is within five minutes' walk of the Dental Hospital of London.

For further particulars apply to the Dean, at the Hospital.

ST. GEORGE'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. Wilson, Dr. Pitman, Dr. Ogle, Dr. Barclay.

Consulting Surgeons.

Mr. Cæsar Hawkins, F.R.S., Mr. Prescott Hewett, F.R.S., Mr. P. Hicks, Mr. H. Lee.

Physicians.	*Surgeons.*
Dr. Wadham.	Mr. Holmes.
Dr. Dickinson.	Mr. R. Rose.
Dr. Whipham.	Mr. Pick.
Dr. Cavafy.	Mr. Haward.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. Watney.	Mr. Bennett.
Dr. Ewart.	Mr. Dent.

Obstetric Physician—Dr. Barnes.
Assistant Obstetric Physician—Dr. Champneys.
Ophthalmic Surgeon—Mr. Critchett (Emeritus).
Assistant Ophthalmic Surgeon—Mr. Frost.
Aural Surgeon—Mr. Dalby. *Dental Surgeon*—Mr. A. Whitchurch.

LECTURERS.—WINTER SESSION.

Chemistry & Physics—Mr. Dupré.	Ophthalmic Surgery—Mr. Brudenell Carter.
Clinical Lectures on Diseases of Women—Dr. Barnes.	Pathology—Dr. Wilson.
Clinical Medicine—Drs. Whipham and Cavafy.	Physiological Chemistry—Dr. Wm. Ewart.
Clinical Surgery—Messrs. Rose and Pick.	Physiology and Minute Anatomy—Dr. Wadham and Mr. Dent.
Descriptive and Surgical Anatomy—Mr. Bennett.	Principles and Practice of Physic—Dr. Dickinson.
Histology—Mr. Compton.	Principles and Practice of Surgery—Messrs. Rose and Pick.
Morbid Anatomy—Dr. Owen.	

SUMMER SESSION.

Aural Surgery—Mr. Dalby.	Medical Jurisprudence—Dr. Wm. Wadham.
Botany—Mr. G. Murray.	Midwifery and Diseases of Women and Children—Dr. Barnes.
Clinical Demonstrations of Diseases of the Skin—Dr. Cavafy.	Practical Chemistry—Mr. Dupré.
Clinical Medicine—Dr. Dickinson.	Practical Medicine—Dr. Whipham.
Clinical Surgery—Mr. Holmes.	Practical Surgery—Mr. Dent.
Comparative Anatomy—Dr. Bradley.	Psychological Medicine—Dr. Blandford.
Dental Surgery—Mr. Whitchurch.	
Materia Medica—Dr. Owen.	

EXHIBITIONS AND PRIZES.

The William Brown Exhibition, of £100 per annum, tenable for two years, to be competed for by perpetual pupils who have recently obtained their diplomas.

The William Brown Exhibition, of £45 per annum, tenable for three years, to be competed for by students during their fourth year of study.

The Bracebridge Prizes of £25 each in Medicine and Surgery, awarded annually after a competitive examination.

The Treasurer's Clinical Prize of £10 10s., the gift of the Duke of Westminster, to be competed for annually.

Sir Charles Clarke's Prize for Good Conduct: The interest of £300 Consols, to be awarded annually to the student of the Hospital, who, by reason of his general good conduct during the preceding year, should be considered the most deserving.

The Thompson Medal: A silver medal to be awarded annually for the best clinical report of Medical and Surgical Cases observed in the Hospital during the preceding twelve months.

Sir Benjamin Brodie's Clinical Prize in Surgery will be awarded to the pupil of the Hospital who shall have delivered to the Surgeons the best report of not more than twelve surgical cases which have occurred in the Hospital during the preceding twelve months.

Dr. Acland's Clinical Prize in Medicine will be awarded to the pupil of the Hospital who shall produce the best report of not more than twelve medical cases which have occurred in the Hospital during the preceding twelve months.

The Pollock Prize in Physiology (value £15) will be awarded to the second year's student who shall exhibit the greatest proficiency in Physiology, Physiological Chemistry, and Histology. The examination for this prize will be held at the commencement of the summer session.

The Henry Charles Johnson Memorial Prize in Anatomy will be awarded to that pupil who shall, in the judgment of the Medical School Committee, exhibit the greatest proficiency in Practical Anatomy.

General Proficiency Prizes: To pupils in their first year, £10 10s.; to pupils in their second year, £10 10s.; to pupils in their third year, £10 10s.

FEES.

Perpetual pupils pay £45 in their first year, £45 in their second year, and £40 in their third year of study, or £125 on entrance.

Gentlemen are admitted to the hospital practice and lectures required for the licensing bodies on payment of the following fees—viz., £45 for the first year of study, £45 for the second year of study, £20 for the third year of study, and £15 for each succeeding year. These are not perpetual pupils.

Dental pupils are admitted to the required courses on payment of £30 for their first year, and £25 for their second year, including Practical Chemistry.

Pupils may also enter to the hospital practice and lectures separately.

For further particulars apply to Dr. Wadham, Dean of the School.

GUY'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Sir William Gull, Bart., Dr. G. Owen Rees.
Consulting Assistant Physician—Dr. Henry Oldham.
Consulting Surgeon—Mr. B. C. Brodie, Mr. Birkett.
Consulting Assistant Surgeon—Mr. Bader.

Physicians.	*Surgeons.*
Dr. S. Wilks.	Mr. Thomas Bryant.
Dr. F. W. Pavy.	Mr. Arthur Durham.
Dr. W. Moxon.	Mr. H. G. Howse.
Dr. C. Hilton Fagge.	Mr. N. Davies-Colley.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. P. H. Pye-Smith.	Mr. R. Clement Lucas.
Dr. Frederick Taylor.	Mr. C. H. Golding-Bird.
Dr. J. F. Goodhart.	Mr. W. H. A. Jacobson.
Dr. F. A. Mahomed.	Mr. C. J. Symonds.
Physician for Diseases of Women.	*Surgeon for Diseases of Women.*
Dr. J. Braxton Hicks.	Mr. C. Higgens.
Assistant Obstetric Physician.	*Assistant Surgeon.*
Dr. A. L. Galabin.	Mr. H. Morris.
Medical Registrar.	*Assistant Surgeon.*
Dr. Carrington.	Mr. W. Lawrence Purves.
Assistant Medical Registrar.	*Assistant Surgeon.*
Dr. G. Hilhart.	Mr. J. Polaini.

Dean—Dr. F. Taylor.

WINTER SESSION.—LECTURES.

Anatomy, Descriptive and Surgical—Mr. Howse and Mr. Davies-Colley.	Clinical Lectures on Midwifery and Diseases of Women—Dr. Braxton Hicks.
Chemistry—Dr. Debus and Dr. Sedgwick.	Experimental Physics—Prof. A. W. Reinold.
Clinical Medicine—Dr. Wilks, Dr. Pavy, Dr. Moxon, and Dr. Fagge.	Medicine—Dr. Pavy and Dr. Moxon.
Clinical Surgery—Mr. Bryant, Mr. Durham, Mr. Howse, and Mr. Davies-Colley.	Physiology—Dr. Pye-Smith.
	Surgery—Mr. Bryant and Mr. Arthur Durham.

DEMONSTRATIONS.

Dermatic Diseases—Dr. Pye-Smith.	Practical Anatomy—Mr. R. E. Carrington and Dr. Hopkins.
Morbid Anatomy—Dr. Goodhart and Dr. Mahomed.	Practical Physiology—Mr. Golding-Bird.
Practical Surgery—Mr. Lucas.	Surgical Classes—Mr. Jacobson.

SUMMER SESSION.—LECTURES.

Botany—Mr. Bettany.	Hygiene—Mr. George Turner.
Clinical Medicine—Dr. Pye-Smith, Dr. F. Taylor, Dr. Goodhart, and Dr. Mahomed.	Materia Medica and Therapeutics—Dr. Taylor.
Clinical Surgery—Mr. Clement Lucas, Mr. G. Lung-Bird, Mr. Jacobson, and Mr. Symonds.	Medical Jurisprudence—Dr. Stevenson.
Clinical Lectures on Diseases of Women—Dr. A. L. Galabin.	Mental Diseases—Dr. Savage.
Comparative Anatomy & Zoology—Dr. Bradley.	Midwifery and Diseases of Women—Dr. Braxton Hicks and Dr. Galabin.
Dental Surgery—Mr. Moon.	Operative Surgery—Dr. Higgens.
	Pathology—Dr. Fagge.

DEMONSTRATIONS.

Morbid Histology—Mr. Symonds.	Practical Chemistry—Dr. Debus.
Operative Surgery—Mr. Lucas.	Surgical Classes—Mr. Jacobson.

This Hospital contains 695 beds.

OPEN SCHOLARSHIPS.

An open Scholarship of the value of £31 5s. in Classics, Mathematics, and Modern Languages.

An open Scholarship of the value of £31 5s. in Science.

PRIZES.

For First Year's Students—At the end of the summer session, in Anatomy, Physiology, Chemistry, Materia Medica, Botany, and Comparative Anatomy: Prizes, £5 and £3.

For Second Year's Students.—In the winter session, the Michael Harris Prize of £10 in Anatomy. Summer session, examination in Anatomy and Physiology, £25 and £10. The Sands-Cox Scholarship of £15 per annum, tenable for three years—subject, Physiology.

For Third Year's Students.—Medical and Surgical Anatomy, Operative and Minor Surgery, Midwifery, Therapeutics: First Prize £25, Second Prize £10

For Fourth Year's Students.—Summer session, examination in Medicine, Surgery, Diseases of Women, and Medical Jurisprudence: Prizes, £25 and £10.

For Senior Students.—The Treasurer's Gold Medal for Clinical Medicine; the Treasurer's Gold Medal for Clinical Surgery; the Gurney Hoare Prize of £25 for Clinical Medicine and Surgery. The Beaney Scholarship of £31 10s. for Pathology.

FEES.

The fees for hospital practice and lectures are as follows:—A perpetual ticket may be obtained—(1.) By the payment of £131 5s. on entrance. (2.) By two payments of £66, at the commencement of the first winter session and the following summer session. (3.) By the payment of three annual instalments, at the commencement of the sessional year: First year £50, second year, £50; third year, £37 10s. Materials used in practical courses are charged extra.

For further information apply to the Dean, Dr. F. Taylor.

KING'S COLLEGE HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Sir Thos. Watson, Bart., M.D.; Dr. Arthur Farre, Dr. W. A. Guy, Dr. W. O. Priestley, Dr. A. B. Garrod.

Physicians.

Dr. George Johnson.
Dr. Lionel S. Beale.
Dr. Alfred B. Duffin.
Dr. William Playfair.
Dr. J. Burney Yeo.
Dr. T. C. Hayes.
Dr. David Ferrier.
Dr. E. B. Baxter.
Dr. John Curnow.

Surgeons.

Mr. John Wood.
Mr. Joseph Lister.
Mr. Henry Smith.
Mr. H. Royes Bell.

Assistant-Surgeons.

Mr. William Rose.
Mr. W. W. Cheyne.

Dental Surgeon.

Mr. S. Hamilton Cartwright.

Ophthalmic Surgeon—Mr. M. M. M'Hardy.
Aural Surgeon—Dr. Urban Pritchard.
Vaccinator—Mr. R. W. Dunn.
Pathological Registrar—Mr. A. B. Barrow.
Chloroformist—Mr. Charles Moss.
Sambrooke Registrars—Mr. V. Matthews, Mr. Hugh Smith, and Mr. B. Newmarch.

PROFESSORS.

Anatomy, Descriptive and Surgical—Dr. John Curnow
Botany—Mr. Robert Bentley.
Chemistry and Practical Chemistry—Mr. C. L. Bloxam; Mr. J. M. Thomson, Demonstrator; Mr. G. S. Johnson, Assist.-Demonstrator.
Clinical Medicine—Dr. G. Johnson.
Clinical Surgery—Mr. John Wood, Mr. Joseph Lister.
Comparative Anatomy—Mr. F. Jeffrey Bell.
Dental Surgery—Mr. S. Hamilton Cartwright.
Forensic Medicine—Dr. D. Ferrier
Hygiene—Dr. Charles Kelly.
Materia Medica and Therapeutics—Dr. E. B. Baxter
Ophthalmology—Mr. M. M. M'Hardy
Obstetric Medicine, and the Diseases of Women and Children—Dr. W. Playfair.
Pathological Anatomy—Dr. A. B. Duffin
Physiology and Practical Physiology—Dr. Gerald F. Yeo; Mr. J. W. Groves, Demonstrator.
Psychological Medicine—Dr. Edgar Sheppard.
Principles and Practice of Medicine—Dr. L. S. Beale
Principles and Practice of Surgery—Mr. Henry Smith.
Surgery and Practical Surgery—Mr. Henry Smith; Mr. H. Royes Bell, Mr. W. Rose, and Mr. W. W. Cheyne, Demonstrators.

Dean of the Faculty—Professor Bentley.
Sub-Dean and Medical Tutor—Dr. N. I. C. Tirard.

SCHOLARSHIPS, EXHIBITIONS, AND PRIZES.

Warneford Scholarships: "For the encouragement of the previous education of medical students," two scholarships of £75 each; and, "for the encouragement of resident medical students," one scholarship of £50.

Medical Scholarships: The following are given every year to matriculated students of this department:—1. One of £50, open to students of the third and fourth years; 2. One of £30, open to students of the second year; 3. Three of £20 each, open to students of the first year.

Daniell Scholarship: One of £40, open to every student who has worked in the laboratory for at least six months.

Sambrooke Registrarships: Two of £50 each every year.

Science Exhibitions: Two annually; one of £100 and one of £50, for proficiency in Mathematics, Mechanics, Physics, Chemistry, Botany, and Zoology.

Sambrooke Exhibitions: Two annually, one of £60, and one of £40, for proficiency in English, Elementary Physics, Inorganic Chemistry, Botany, Zoology, Mathematics, and Languages.

Leathes Prizes: Bible and Prayer-book, annually, to two matriculated medical students.

Warneford Prizes: £40 is expended annually in the purchase of medals and books as prizes to two matriculated medical students.

Class Prizes are awarded annually of the value of £3 in each subject of study.

Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session and two Surgical Clinical Prizes of the same value, are given annually for attendance at the Hospital.

Todd Medical Clinical Prize. This prize was founded in memory of the late Dr. Todd, and is awarded annually. It consists of a bronze medal and books to the value of £4 4s.

Tanner Prize: Of the value of £10 in each year, for proficiency in the study of Obstetrics: Medicine, and in Diseases of Women and Children.

Carter Prize: This prize is awarded annually for proficiency in Botany, and consists of a Gold Medal and Books, of the joint value of £15.

FEES.

The fees for perpetual attendance amount to £125 if paid in one sum on entrance; or £130 if paid in two instalments—viz., £70 on entrance and £60 at the commencement of the second winter session; or £135 if paid in three instalments—viz., £60 on entrance, £50 at the beginning of the second winter session, and £25 at the beginning of the third winter session.

For further information apply to Professor Bentley, Dean of the Medical Faculty.

LONDON HOSPITAL AND MEDICAL COLLEGE.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. Herbert Davies and Dr. Ramskill.
Consulting Surgeon—Mr. Curling, F.R.S.

Physicians.

Dr. Andrew Clark.
Dr. Langdon Down
Dr. Hughlings-Jackson, F.R.S.
Dr. Sutton.
Dr. Fenwick.
Dr. Stephen Mackenzie.
Dr. A. E. Sansom.

Assistant-Physicians.

Dr. F. Charlewood Turner.
Dr. Gilbert Smith.
Dr. F. Warner.
Dr. C. H. Ralfe.

Surgeons.

Mr. Hutchinson, F.R.S.
Mr. Couper.
Mr. Rivington
Mr. Jas. Adams.
Mr. Waren Tay.
Mr. M'Carthy.

Assistant-Surgeons—Mr. Reeves, Mr. Fredk. Treves, and Mr. C. W. Mansell-Moullin.
Obstetric Physician—Dr. Palfrey.
Assistant Obstetric Physician—Dr. G. E. Herman.
Surgeon-Dentist—Mr. Ashley W. Barrett.
Surgeons to the Ophthalmic Department—Mr. James Adams and Mr. Waren Tay.
Surgeons to the Aural Department—Dr. Edward Woakes and Mr. C. Mark Hovell.
Physician to the Skin Department—Dr. Stephen Mackenzie.

LECTURES.

Anatomy and Pathology of the Teeth—Mr. Ashley W. Barrett.
Botany—Dr. Warner
Chemistry—Dr. C. Meymott Tidy.
Comparative Anatomy—Mr. C. W. Mansell-Moullin.
Descriptive and Surgical Anatomy—Mr. Walter Rivington.
Diseases of the Throat and Use of the Laryngoscope—Dr. Morell Mackenzie.
Forensic Medicine—1. Toxicology, Dr. C. Meymott Tidy; 2. Medical Jurisprudence and Public Health—Mr. ——
Materia Medica and General Therapeutics—Dr. M. Prosser James
Medicine—Dr. Stephen Mackenzie.
Midwifery and Diseases of Women—Dr. James Palfrey.
Pathology and Demonstrations of Morbid Anatomy—Dr. H. G. Sutton.
Practical Anatomy—Mr. Frederick Treves.
Practical Chemistry—Dr. C. Meymott Tidy.
Practical Histology, and Use of the Microscope—Mr. M'Carthy.
Physiology and General Anatomy—Mr. M'Carthy.
Ophthalmic Surgery—Mr. J. Adams.
Operative Surgery—Mr. J. Adams.
Practical Surgery—Mr. Reeves.
Surgery—Mr. Jas. Adams
Aural Surgery—Dr. Edwd. Woakes.
Warden—Mr. Munro Scott.

SCHOLARSHIPS AND PRIZES.

The following scholarships will be offered for competition during the ensuing winter and summer sessions:—

Two Entrance Scholarships in Natural Science, of the value of £60 and £40 respectively, will be offered for competition at the end of September. The subjects will be Physics, Botany, Zoology, and Inorganic Chemistry.

The two Buxton Scholarships will be awarded in September to the students who distinguish themselves most in the subjects appointed by the General Council of Medical Education and Registration as the subjects of the preliminary examinations. 1. A Scholarship, value £35, to the student placed first in the examination. 2. A scholarship, value £20, to the student placed second in the examination.

A Scholarship, value £20, will be awarded to the first-year student who shall pass in March, 1883, the best examination in Human Anatomy and Physiology.

A Scholarship, value £25, will be awarded to the first-year or second-year student who shall pass at the end of the winter session the best examination in Anatomy, Physiology, and Chemistry.

A Hospital Scholarship, value £40, for proficiency and zeal in Clinical Medicine.

A Hospital Scholarship, value £20, for proficiency and zeal in Clinical Surgery.

A Hospital Scholarship, value £20, for proficiency and zeal in Obstetrics (awarded at the end of June, 1883).

The Lethleby Prize, value £30, for proficiency in Chemistry.

The Duckworth-Jackson Prize, value £10, will be awarded by competition biennially, and will be open to all students. The subjects of examination will be Practical Medicine and Surgery.

Money Prizes, to the value of £60 per annum, are awarded by the House Committee to the most meritorious of the Dressers in the out-patient rooms who have passed their first College examination.

The Hospital contains nearly 800 beds, and the number of in-patients last year amounted to 6860, exclusive of 534 remaining under treatment at the commencement of the year.

Owing to the great size of the Hospital, the appointments are necessarily numerous and most valuable. They are all free to full students without additional fee.

The resident appointments consist of five House-Physiciancies, five House-Surgeoncies, and one Accoucheurship, each being tenable for six months, and renewable for two further periods of three months each. The holders of these appointments are provided with board and lodging free of expense. Two Dressers and two Maternity Assistants also reside in the Hospital.

Attached to the Pathological Department of the London Hospital is a laboratory, under the supervision of Dr. Sutton, which contains a large number of microscopic sections, carefully indexed and recorded. This important addition is entirely due to the liberality of the Hospital authorities, and was made a part of the new "Grocers' Wing."

FEES.

Perpetual fee for attendance on all the lectures with two years' Practical Anatomy, and for attendance on medical and surgical practice, qualifying for examination at most of the medical and surgical boards, £94 10s. if paid in one sum, or £105 in three instalments of £47 5s., £42, and £15 15s., at the commencement of the first, second, and third years respectively; composition fee for gentlemen entering at or before the beginning of their second winter session, their first year having been spent at a recognised medical school elsewhere, £73 10s. if paid in one sum, or £78 15s. in two instalments of £47 5s. and £31 10s.; perpetual fee for lectures alone, £52 10s.; perpetual fee for hospital practice alone, £52 10s. Extra fees: Practical Chemistry (for apparatus, etc.), £2 2s.; Practical Physiology do., £1 1s.; subscription to the library (compulsory), £1 1s.

Students in Arts of Universities where residence is required, who have attended lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, and have obtained signatures for such attendance, fulfilling the requirements of the Examining Boards, may become pupils of the London Hospital, eligible for all hospital appointments, on payment of the fee of £52 10s. for practice at the Hospital. This payment does not give the right to signatures for courses of lectures at the Medical College.

Students who have passed the Preliminary Scientific Examination at the University of London, and have obtained signatures for lectures on Botany, Zoology, Chemistry, and Practical Chemistry, shall have the fees for the same, amounting to £18 18s., remitted on entering as full students at the London Hospital; and students who have attended the above courses elsewhere, and have obtained signatures for the same previous to their entrance at the London Hospital, shall also have these fees remitted, provided they pass the Preliminary Scientific Examination within eighteen months of their entry as full students.

For the convenience of students a Club has been established in the Hospital grounds, where meals can be obtained at moderate charges.

Communications should be addressed to Mr. Munro Scott, the Warden, at the London Hospital Medical College, Turner-street, Mile-end, London, E.

ST. MARY'S HOSPITAL (a)

MEDICAL OFFICERS.

Consulting Medical Officers.

Dr. Chambers, Sir James Alderson, M.D., F.R.S., Mr. Lane, Mr. Spencer Smith, Mr. J. R. Lane, Mr. White Cooper.

Physicians.	*Surgeons*
Dr. Handfield Jones, F.R.S.	Mr. Haynes Walton.
Dr. Sieveking.	Mr. Norton.
Dr. Broadbent.	Mr. Edmund Owen.
Physicians in charge of Out-Patients.	*Surgeons in charge of Out-Patients.*
Dr. Cheadle.	Mr. Herbert W. Page.
Dr. Shepherd.	Mr. Pye.
Dr. David Lees.	Mr. Pepper.

Physician-Accoucheur—Dr. Alfred Meadows.
Physician-Accoucheur in Charge of Out-Patients—Dr. Wiltshire.
In charge of the Department for Diseases of the Skin—Dr. Cheadle, Mr. Malcolm Morris.
Ophthalmic Surgeon—Mr. Anderson Critchett.
Surgeon in charge of the Department for Diseases of the Throat—Mr. Norton.
Aural Surgeon—Mr. G. Field.
Surgeon-Dentist—Mr. Howard Hayward.
Post-mortem Examinations—Dr. Henderson.
Instructor in Vaccination—Mr. W. A. Sumner.

(a) No return.

LECTURES.—WINTER SESSION.

Anatomy—Mr. Owen.	Dental Surgery—Mr. Howard Hayward.
Candidâ Medicine—Dr. Handfield Jones, Dr. Sieveking, and Dr. Broadbent.	Medicine—Dr. Broadbent and Dr. Cheadle.
Clinical Surgery — Mr. Haynes Walton, Mr. J. R. Lane, and Mr. Norton.	Physiology—Mr. Pye.
Chemistry and Natural Philosophy—Dr. C. R. A. Wright.	Practical Physiology—Mr. Pepper.
Pathology—Dr. Shepherd.	Practical Surgery—Mr. Herbert W. Page.
	Surgery—Mr. James R. Lane and Mr. Norton.

SUMMER SESSION.

Aural Surgery—Mr. G. Field.	Materia Medica—Dr. Lees.
Botany—Rev. J. M. Crombie.	Midwifery—Dr. Meadows and Dr. Wiltshire.
Comparative Anatomy—Mr. St George Mivart, F.R.S.	Ophthalmic Surgery—Mr. Anderson Critchett.
Diseases of the Skin—Dr. Cheadle and Mr. Malcolm Morris.	Practical Chemistry—Dr. C. R. A. Wright.
Medical Jurisprudence—Dr. Randall.	

The Hospital contains 190 beds—88 medical, and 102 surgical. There are special departments for the Diseases of Women and Children, and for Diseases of the Eye, the Ear, the Skin, and the Throat.

SCHOLARSHIPS, PRIZES, ETC.

Two Scholarships in Natural Science, tenable for three years, the first of a total value of £150, the second of a total value of £100. These are awarded by open competitive examination at the commencement of the winter session.

A Scholarship in Anatomy, of the annual value of £20, is offered for competition amongst those students who have completed their second or third winter session; and a Scholarship in Pathology, of the value of £40 (the holder of which is styled Assistant-Curator), for those students who have completed their third winter session.

Examinations for prizes are held at the termination of each session in the various classes for students of the first, second, and third year.

Two Prosectors are appointed annually, who each receive a certificate and £5 for their services in the dissecting-room.

FEES.

The entrance fee may be paid in instalments by arrangement with the Dean of the School. Students who have kept the two years' course at the University of Cambridge are admitted as perpetual pupils on payment of £72 9s., and those who have kept a portion of the course elsewhere at a proportionate reduction. A fee of £1 1s. is required to be paid to the library and reading-room. Instruction in vaccination can be obtained; fee £1 1s.

Further information may be obtained from Dr. Shepherd, Dean of the School; or from the Registrar, at the Hospital.

MIDDLESEX HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. A. P. Stewart, Dr. Goodfellow, Dr. Henry Thompson, Dr. Greenhow, F.R.S.
Consulting Surgeons—Mr. Shaw, Mr. Nunn.
Consulting Dental Surgeon—Mr. Tomes, F.R.S.

Physicians.	*Surgeons.*
Dr. Cayley.	Mr. Hulke, F.R.S.
Dr. Sidney Coupland.	Mr. Lawson.
Dr. Douglas Powell.	Mr. Morris.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. David Finlay.	Mr. Andrew Clark.
Dr. J. K. Fowler.	Mr. Robert Lyell.
Dr. C. Y. Bise.	

Obstetric Physician—Dr. Hall Davis.
Physician to Skin Department—Dr. Robert Liveing.
Assistant Obstetric Physician—Dr. Arthur Ellis.
Ophthalmic Surgeon—Mr. William Laug.
Aural Surgeon—Mr. Arthur Hensman.
Dental Surgeon—Mr. Turner.
Assistant Dental Surgeon—Mr. Storer Bennett.
Curator of Museum and Pathologist—Dr. J. K. Fowler.
Registrars—Dr. J. W. Browne and Mr. W. Roger Williams.
Resident Medical Officer—Mr. E. A. Fardon.
Chloroformist—Mr. G. Everitt Norton.

LECTURES.—WINTER SESSION.

Chemistry—Mr. Wm. Foster.	Physiology and General Anatomy—Mr. B. Thompson Lowne.
Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.	Practical Demonstrations on Diseases of the Eye—Mr. Lang.
Clinical Lectures on Diseases of Women and Children—Dr. J. Hall Davis.	Practical Surgery — Mr. Andrew Clark.
Descriptive and Surgical Anatomy—Mr. Hensman.	Principles and Practice of Medicine—Dr. Cayley.
Pathological Anatomy—Dr. Coupland.	Principles and Practice of Surgery—Mr. Henry Morris.

SUMMER SESSION.

Botany—Dr. Biss.	Comparative Anatomy and Zoology—Mr. Hensman.
Clinical Lectures on Medicine and Surgery—The Physicians and Surgeons.	Materia Medica and Therapeutics—Dr. Thorowgood.
Clinical Lectures on Diseases of the Eye—Mr. Lang.	Medical Jurisprudence—Dr. D. W. Finlay.

SUMMER SESSION—*continued.*

Midwifery and Diseases of Women and Children — Dr. J. Hall Davis.
Practical Demonstrations on Diseases of Women and Children—Dr. Arthur Edis.
Practical Demonstrations on Diseases of the Larynx and Ear—Mr. Hensman.
Diseases of the Skin—Dr. Robert Liveing.
Practical Physiology and Histology—Mr. B. Thompson Lowne.
Practical Chemistry—Mr. Wm. Foster.
Psychological Medicine—Mr. Henry Case, Supt. Leavesden Asylum.
Public Health—Dr. D. W. Finlay.

This Hospital contains 310 beds, of which 190 are for surgical and 120 for medical cases. There is a special department for Cancer cases, affording accommodation for thirty-three in-patients, whose period of residence in the Hospital is unlimited. Wards are also appropriated for the reception of cases of Uterine Disease and of Syphilis, and beds are set apart for patients from Diseases of the Eye. There are special out-patient departments for Diseases of the Skin, the Throat, the Eye and Ear.

PRIZES AND SCHOLARSHIPS.

Two Entrance Scholarships of the annual value of £25 and £20, tenable for two years, are afforded for competition at the commencement of the winter session.

A Science Scholarship of the value of £50 will be offered for competition at the commencement of the winter session 1882-83. The successful candidate will be required to become a general student of the school. Examination in Inorganic Chemistry, Botany and Vegetable Physiology, Zoology, and Experimental Physics. The subjects of these subjects will be that of the Preliminary Scientific Examination of the University of London, and there will be a practical examination in the first three.

Two Broderip Scholarships of the annual value of £10 and £5, tenable for two years, are annually awarded to those students who pass the most satisfactory examination at the bed-side, and in the post-mortem room.

The Murray Scholarship is open to all general students, and will next be awarded in 1883. Examinations in Medicine, Surgery, and Midwifery.

The Governors' Prize of £21 is awarded annually to the student who at the end of his third winter session shall pass the best clinical examination and have been most diligent in the wards and post-mortem room.

An Exhibition in Anatomy and Physiology, value £17 10s., is given at the end of the first winter session to the student who shall pass the best practical and written examination.

FEES.

The fee for attendance on the hospital practice and lectures required by the Colleges of Physicians and Surgeons and the Society of Apothecaries is £94 10s. if paid in advance, or £40 on entrance, £40 at the beginning of the second winter session, £20 at the beginning of the third winter session, and £5 at the beginning of the fourth winter.

Dental students who intend to become Licentiates in Dental Surgery of the Royal College of Surgeons are admitted to attend the requisite courses of lectures and hospital practice on payment of a fee of £42, either in one payment or by instalments of £30 on entrance, and £15 at the beginning of the second winter session.

ST. THOMAS'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Honorary Consulting Physicians—Dr. Barker, Sir J. Risdon Bennett.
Honorary Consulting Surgeons—Mr. F. Le Gros Clark, Mr. Simon, C.B.
Consulting Ophthalmic Surgeon—R. Liebreich, Esq.

Physicians.
Dr. Bristowe.
Dr. Stone.
Dr. Ord.
Dr. Barley.

Obstetric Physician.
Dr. Gervis.

Assistant-Physicians.
Dr. Payne
Dr. Sharkey.
Dr. Gulliver

Assistant Obstetric Physician.
Dr. Cory.

Assistant-Physician for Diseases of the Throat.
Dr. Semon.

Resident Assistant-Physician.
Dr. Sheppard.

Surgeons.
Mr. Sydney Jones.
Mr. Croft.
Sir Wm. Mac Cormac
Mr. Mason.

Ophthalmic Surgeon.
Mr. Nettleship

Assistant Surgeons.
Mr. A. O. MacKellar
Mr. H. H. Clutton
Mr. W. Anderson.

Dental Surgeon.
Mr. J. W. Elliott.

Assistant Dental Surgeon.
Mr. W. G. Ranger

Resident Assistant-Surgeon.
Mr. B. Pitts

Anæsthetist—Mr. S. Osborn
Electrician—Mr. Kilner, M.B.
Demonstrators of Morbid Anatomy—Dr. Sharkey and Dr. Hadden
Analytical Chemist to the Hospital—Dr. Albert J. Bernays
Curator to the Museum—Mr. C. Stewart
Apothecary—Mr. Plowman
Medical Registrar—Dr. C. E. Sheppard.
Surgical Registrar—Mr. W. H. Battle.
Secretary to the Medical School—Dr. Gillespie. *Dean*—Dr. Ord.

LECTURES AND DEMONSTRATIONS.

Medicine—Dr. Bristowe and Dr. Ord.
Clinical Medicine—Dr. Bristowe, Dr. Stone, Dr. Ord, and Dr. Harley.
Obstetric Clinical Medicine—Dr. Gervis.
Surgery—Mr. Sydney Jones and Sir Wm. Mac Cormac.
Clinical Surgery—Mr. S. Jones, Mr. Croft, Sir Wm. Mac Cormac, and Mr. Mason. Special Course: Mr. Croft.
Descriptive Anatomy—Dr. Reid and Mr. Anderson.
General Anatomy and Physiology—Dr. John Harley and Mr. Stewart.
Practical Physiology—Dr. T. C. Charles.
Ophthalmic Surgery—Mr. Nettleship.
Chemistry and Practical Chemistry—Dr. Bernays.
Midwifery and the Diseases of Women and Children—Dr. Gervis.
Physics and Natural Philosophy—Dr. Stone.
Materia Medica and Therapeutics—Dr. Stone.
Forensic Medicine—Mr. Clutton and Dr. Cory.
Pathological Anatomy—Dr. Payne and Dr. Sharkey.
Botany—Mr. A. W. Bennett.
Comparative Anatomy—Mr. C. Stewart.
Mental Diseases—Dr. H. Rayner.
State Medicine—Dr. A. Carpenter.

TEACHERS OF PRACTICAL SUBJECTS AND DEMONSTRATORS.

Practical Chemistry—Dr. Bernays.
Practical and Manipulative Surgery—Mr. Mason and Mr. MacKellar.
Demonstrations in Anatomy—Dr. Reid, Mr. Anderson, Mr. Taylor, Mr. Gallaway, and Assistants.
Demonstrations in Microscopical Anatomy—Mr. Ranney.
Demonstrations of Morbid Anatomy—Dr. Sharkey and Dr. Hadden.
Demonstrations in Physiology—Dr. T. D. Acland.
Demonstrations in Practical Physiology—Dr. T. D. Acland.
Diseases of the Eye—Mr. Nettleship.
Diseases of the Skin—Dr. Payne.
Diseases of the Throat—Dr. Semon.
Diseases of the Ear—Mr. Clutton.
Diseases of the Teeth—Mr. J. W. Elliott and Mr. W. G. Ranger.

PRIZES AND APPOINTMENTS.

Entrance Scholarships of £100 and £60, awarded after an examination in Physics and Chemistry, with either Botany or Zoology.

First Year's Prizes.—Winter: The Wm. The Scholarship of £40; College Prizes—£20 and £10. Summer Prizes: £15 and £10.

Second Year's Prizes.—Winter: The College Scholarship of £42, tenable for two years; College Prizes—£20 and £10. Summer Prizes: £15 and £10.

Third Year's Prizes.—Winter: £25, £15, and £10. Summer: £15 and £10. The Cheselden Medal, awarded after a special examination in Surgical Anatomy and Surgery. The Mead Medal, awarded after a special examination in Practical Medicine and Hygiene. The Solly Medal, biennially, with a prize of £10 10s., for a collection of surgical reports. The Treasurer's Gold Medal, for general proficiency during the entire course of study. The Grainger Testimonial Prize, of the value of £20, will be awarded biennially to the third or fourth years' students for a physiological essay, to be illustrated by preparations.

The Dresser-ships and the Clinical and Obstetrical Clerkships are open to students who have passed the primary examination at the Royal College of Surgeons, without extra charge.

FEES.

Gentlemen are informed that the admission fees to practice and to all the lectures may be paid in one of three ways, entitling to unlimited attendance—1st, £125, paid on entrance, entitle a student to unlimited attendance; 2nd, £135 in two payments, of £75 on entrance and £60 at beginning of next year; 3rd, by three instalments, of £65 the first year, £50 the second, and £30 the third. Special arrangements are made for students entering in second or subsequent years, and for Dental students; and separate entries may be made to any course of lectures, or to the hospital practice.

There are special departments for Diseases of the Eye, Diseases of Women and Children, Vaccination, Diseases of the skin, Diseases of the Teeth, and Mental Diseases.

For further information, apply to Dr. Gillespie, Secretary to the Medical School, St. Thomas's Hospital, London, S.E.

UNIVERSITY COLLEGE AND HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting-Physicians.
Dr. Walter H. Walshe
Dr. J. Russell Reynolds
Sir William Jenner, Bart.

Physicians.
Dr. Wilson Fox.
Dr. Sidney Ringer
Dr. Burdon Sanderson.
Dr. F. T. Roberts.

Obstetric Physician.
Dr. Grailly Hewitt.

Physician to the Skin Department
Dr. Radcliffe Crocker.

Assistant-Physicians.
Dr. W. R. Gowers.
Dr. G. V. Poore
Dr. F. Barlow

Assistant Obstetric Physician.
Dr. John Williams

Consulting-Surgeons.
Mr. Richard Quain.
Mr. J. Eric Erichsen.
Sir Henry Thompson.

Surgeons.
Mr. Marshall
Mr. Berkeley Hill
Mr. Christopher Heath.

Assistant-Surgeons.
Mr. Marcus Beck.
Mr. A. Barker.
Mr. R. J. Godlee.

Ophthalmic Surgeon.
Mr. J. F. Streatfeild.

Assistant Ophthalmic Surgeon.
Mr. J. Tweedy.

Dental Surgeon.
Mr. G. A. Robertson.

Assistant Professors of Clinical Medicine—Dr. W. R. Gowers and Dr. T. Barlow
Assistant Professors of Clinical Surgery—Mr. Marcus Beck and Mr. A. Barker.
Assistant Professor of Midwifery—Dr. John Williams.

LECTURES.—WINTER SESSION.

Chemistry—Dr. Williamson.
Clinical Medicine—Dr. W. Fox, Dr. S Ringer, Dr. Bastian, Dr. Roberts, Dr. Barlow, Dr. Gowers.
Clinical Midwifery—Dr. G. Hewitt, Dr. John Williams.
Clinical Surgery—Mr. Erichsen, Mr. Marshall, Mr. B. Hill, Sir H. Thompson, Mr. C. Heath, Mr Streatfeild, Mr. Beck, Mr. Barker.
Dental Surgery—Mr. Tomes.
Surgery—Mr. Marshall.
Skin Diseases—Dr. R. Crocker.
Descriptive Anatomy—Mr. Thane; Demonstrations—Mr. Rickman J. Godlee, Dr. A. Q. Silcock, Mr. B Pollard, Mr. A. Kempe, Mr. J. W. Carr, Mr. C. Stonham, Mr. E. H. Thane.
Medicine—Dr. Sydney Ringer.
Practical Surgery—Mr B Hill, Mr. M Beck, Mr. E. A. Barker.
Physiology and General Anatomy—Dr. B. Sanderson, Mr. Schafer.
Zoology and Comparative Anatomy—Mr. E. R Lankester.

SUMMER SESSION.

Botany—Professor Oliver.
Forensic Medicine—Dr. G. V. Poore.
Histology and Practical Physiology—Dr. B. Sanderson, Mr. Schafer.
Hygiene—Dr. Corfield.
Materia Medica—Dr. F. T. Roberts.
Midwifery—Dr. Grailly Hewitt, Dr. John Williams
Operative Surgery—Mr. M. Beck.
Morbid Anatomy and Pathology—Dr. H. C. Bastian.
Natural Philosophy—Prof. G C. Foster.
Ophthalmic Surgery — Mr. John Tweedy
Practical Chemistry—Dr. Williamson.
Practical Pharmacy—Mr. Gerrard

SCHOLARSHIPS AND EXHIBITIONS.

The Atkinson-Morley Surgical Scholarship, £45 per annum, tenable for three years, is awarded every year for proficiency in the theory and practice of Surgery.

The Atchison Scholarship, value about £55, tenable for two years, for general proficiency.

The Sharpey Physiological Scholarship, of about £100 a year, for proficiency in Biological Science.

The Filliter Prize of £30, for proficiency in Pathological Anatomy.

Dr. Fellowes' Clinical Medals, one gold and two silver, each winter and summer session, and certificates of honour, for reports and observations on the Medical Cases of the Hospital.

The Liston Gold Medal, and certificates of honour, for reports and observations on the Surgical Cases in the Hospital.

The Alexander Bruce Gold Medal, for Pathology and Surgery.

The Cluff Memorial Prize, awarded every other year for proficiency in Anatomy, Physiology, and Chemistry.

Gold and Silver Medals, as well as certificates of honour, are awarded as class prizes.

The Jews' Commemoration Scholarship of £15 a year, tenable for two years, for general proficiency in the Faculty of Arts or of Science, for students of one year's standing; the Tuffnell Scholarship, £100, tenable for two years, for proficiency in Chemistry; and the Clothworkers' Exhibition for Chemistry and Physics, of £50 a year, tenable for two years, may be held by students who, after obtaining it, enter the Medical Faculty.

The Morris Bursary of £25, tenable for two years.

ENTRANCE EXHIBITIONS.

Three Entrance Exhibitions, of the respective value of £100, £60, and £40 per annum; subject:—Science, as in London Preliminary Scientific Examination.

FEES.

For the lectures and hospital practice for the licences of the Royal College of Physicians, Society of Apothecaries, and M.R.C.S., £131 5s. if paid in one sum: or first year, £63; second year, £52 10s; third year, £21.

Further information and detailed prospectuses may be obtained from the College, Gower-street, W.C.

WESTMINSTER HOSPITAL.

HOSPITAL STAFF.

Consulting Physician—Dr. Radcliffe.
Consulting Surgeons—Mr. Barnard Holt, Mr. Holthouse.

Physicians.	*Surgeons.*
Dr. Fincham.	Mr Cowell.
Dr. Sturges.	Mr. Richard Davy.
Dr. Allchin.	Mr. Macnamara.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. Horatio Donkin.	Mr. T. Cooke.
Dr. De Havilland Hall.	Mr T. Bond.
Dr. Hughes Bennett.	Mr Gould.

Obstetric Physician—Dr. Potter.
Assistant Obstetric Physician—Dr Grigg.
Dental Surgeon—Dr. Walker.
Aural Surgeon—Mr. Keene.
Surgeon in charge of the Ophthalmic Department—Mr. Cowell.
Surgeon in charge of the Orthopædic Department—Mr. R. Davy.
Surgeon in charge of the Skin Department—Dr Allchin.
Physician in charge of the Throat Department—Dr. Hall.

LECTURERS.

Anatomy—Mr. A. Pearce Gould; Demonstrator, Mr. Black.
Aural Surgery—Mr. Keene.
Botany—Mr. Worsley-Benison.
Chemistry Dr. Dupré, F.R.S.
Clinical Medicine—Dr. Fincham, Dr. Sturges, Dr. Allchin
Clinical Surgery—Mr. Cowell, Mr. Davy, Mr. Macnamara.
Comparative Anatomy—Dr. Leslie Ogilvie.
Dental Surgery—Dr. Walker
Experimental Physics—Dr. George Ogilvie.
Forensic Medicine and Hygiene—Mr. Bond, Dr. Dupré.
Materia Medica and Therapeutics—Dr. Murrell.
Medicine—Dr. Fincham, Dr Sturges.
Midwifery and Diseases of Women—Dr. Potter.
Diseases of the Skin—Dr. Allchin.
Ophthalmic Surgery—Mr. Cowell.
Pathology and Morbid Anatomy—Dr Allchin
Physiology—Dr. Allchin and Mr. North
Practical Surgery—Mr. Richard Davy.
Treasurer of the School—Mr. Cowell.
Sub-Dean—Mr. Gould
Pathologist and Curator of the Museum—Dr. Hebb
Practical Chemistry—Dr Dupré.
Practical Physiology and Histology—Mr North
Psychological Medicine—Dr. Sutherland.
Surgery—Mr. Cowell, Mr. Macnamara
Dean of the School—Dr. Allchin.
Tutors—Dr. De Havilland Hall and Mr. Black.

In addition to the practice of the Hospital, which contains 201 beds, and has lately been enlarged and improved, the general students of this school are admitted to the practice of the Royal Westminster Ophthalmic Hospital, and to that of the National Hospital for Epilepsy and Paralysis.

PRIZES.

Entrance Scholarships (next October): The Fence, £40 a year for two years; and one other, value £40. Subjects—Latin, Mathematics, French or German, Chemistry, and Natural Philosophy. The Latin books the same as the June examination of the University of London Matriculation—Livy, Book II.

There are also an Exhibition, value £10 10s., for first year's men; a Scholarship in Anatomy and Physiology, value £21, for second year's men; Prizes for Clinical Medicine and Surgery of £5 each; the Frederic Bird Medal and Prize, value £15; the Chadwick Prize for general proficiency, value £21; numerous dresserships and clerkships; the posts of Pathologist and Curator of the Museum, with £52 10s. a year; Medical and Surgical Registrar, each with £40 a year; of House-Physician (two), House-Surgeon, Resident Obstetric Assistant, and Assistant House-Surgeon.

FEES.

The entry fee to lectures and hospital practice required by the College of Physicians and Surgeons and the Society of Apothecaries may be paid in one sum of £100; in two payments of £52 10s. each, at the commencement of the first two years; or in five payments of £23 each, at the commencement of the first five sessions. The fees for Dental Students are £50 in one sum, or £32 10s. and £20 respectively at the commencement of each academic year.

Full particulars as to the preliminary scientific and tutorial classes, the courses of lectures and mode of instruction, will be found in the published Calendar, and any further information may be obtained by personal application to Dr. Allchin, the Dean of the School, or to Mr. Gould, the Sub-Dean.

PROVINCIAL MEDICAL SCHOOLS.

OXFORD.

THERE is no School of Medicine at Oxford.

CAMBRIDGE.

The following is a list of the classes and lectures in the Cambridge University School of Medicine:—

WINTER COURSES.

Anatomy—Professor Humphry and the Demonstrator Mr. Hill
Superintendence of Dissections by the Professor of Anatomy and Demonstrators
Anatomy and Physiology—Professor Humphry.
Chemistry—Professor Liveing.
Materia Medica—Professor Latham.
Medicine—Professor Paget.
Practical Surgery—Mr. Wherry.
Physics—Professor Lord Rayleigh.
Practical Chemistry — Professor Liveing and Mr. Hicks.
Physiology—Dr. Michael Foster.
Zoology and Comparative Anatomy—Professor Newton. Demonstrations by the Demonstrator.
Animal Morphology—Demonstrations by the Demonstrators

SUMMER COURSES.

Botany—Professor Babington.
Chemistry and Practical Chemistry—Prof. Liveing and Mr. Hicks.
Comparative Anatomy, Dissections by the Demonstrator.
Med Jurisprudence—Dr. Anningson
Pathology—Dr. Bradbury.
Practical Histology—Mr Hill.
Midwifery and Practical Midwifery—Dr Iogle.
Classes in Surgery—Dr. Humphry.
Practical Surgery—Mr. Wherry.
Human Osteology—Prof. Humphry or an Assistant.
Practical Physiology—Dr. Michael Foster or his Assistant.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

This Hospital contains 120 beds.

MEDICAL AND SURGICAL STAFF.

Physicians.	*Surgeons.*
Dr. Paget.	Dr. Humphry.
Dr. Latham.	Mr. Carver.
Dr. Bradbury.	Mr. Wallis.
	Mr. Wherry.

Clinical Lectures by the Physicians and Surgeons.

Fees for attendance upon the practice (medical and surgical), £15 15s. for an unlimited period; £10 10s. for one year; £8 8s. for six months.

DOWNING COLLEGE, CAMBRIDGE.

Every alternate year an election to a Fellowship takes place, the holder of which must be engaged in the active pursuit of the studies of Law or Medicine. These Fellowships are of the annual value of £200, and are tenable for twelve years. They are not vacated by marriage, and the Fellows are not required to reside. Foundation Scholarships of £50 per annum (in some cases with rooms and commons) are offered annually for distinction in Natural Science, tenable until the B.A. degree, and in cases of special merit for three years longer. Minor Scholarships of £40 to £70 per annum, tenable until their holders are of standing to compete for a Foundation Scholarship, are offered each year for competition before entrance, and one or more of these is awarded for proficiency in Natural Science.

THE QUEEN'S COLLEGE, BIRMINGHAM.

WINTER SESSION.

Chemistry—W. A. Tilden, D.Sc Lond., F.R.S.
Demonstrations on Practical Anatomy—Mr. Bennett May and Mr. Henry Eales.
Descriptive and Surgical Anatomy—Professor Thomas.
Medicine—Professor Foster.
Pathology—Professor Rickards.
Physiology—Professor John Berry Haycraft, M.B., B.Sc. Edin.
Surgery — Professors Pemberton and Furneaux Jordan.

SUMMER SESSION.

Botany—Professor W. Hillhouse, B.A. Cantab., F.L.S.
Dental Mechanics—Prof. C. Sims.
Dental Metallurgy—Professor W. A. Tilden, D.Sc. Lond., F.R.S.
Dental Anatomy and Physiology—Professor F. R. Batchelor.
Dental Surgery—Prof. Howkins.
Diseases of Women and Children—Professors Berry and R. C. Jordan.
Materia Medica—Professor Sawyer.
Forensic Medicine and Toxicology—Professors J. St. S. Wilders and Hill.
Midwifery — Professors Clay and Bassett.
Ophthalmic Surgery — Professor Solomon.
Practical Chemistry—Professor W. A. Tilden, D.Sc. Lond., F.R.S.
Operative Surgery—Professors Pemberton and Jordan.

Honorary Curator of Museum—Dr. A. H. Carter.
Medical Tutor—Mr. C. W. Suckling.

SCHOLARSHIPS AND PRIZES.

The Sands Cox Prize.—A prize of the value of £20 is given annually in the Medical Department, in accordance with the Act of Parliament, "in commemoration of the exertions of Mr. William Sands Cox in founding and supporting the College. This prize is open to students who have completed their curriculum, and is awarded after examination in Medicine, Surgery, and Midwifery. Every candidate is required to produce a certificate of good conduct from the Warden. The examination for this prize will be held in the third week in March.

The Ingleby Scholarships.—Two Ingleby Scholarships, founded in memory of the late Dr Ingleby, formerly Professor of Midwifery in this School, will be awarded annually, after examination in Obstetric Medicine and Surgery and Diseases of Women and Children. These scholarships are open to students who have completed the first two years of their curriculum in this College.

Sydenham Scholarships.—Given by vote of Council.

Queen's Scholarships—Given as result of examination.

Class Prizes.—Medals and certificates of honour are awarded annually in each class after examination.

THE GENERAL AND QUEEN'S HOSPITALS, BIRMINGHAM.

GENERAL HOSPITAL STAFF.

Consulting Physician—Dr Ball Fletcher.
Consulting Surgeons—Mr. D. W. Crompton and Mr. A. Baker.

Physicians.	*Surgeons.*
Dr. Russell.	Mr. Oliver Pemberton.
Dr. Wade.	Mr. T. H. Bartlett.
Dr. Foster.	Mr. Robert Jolly.
Dr. Rickards.	Mr. Chavasse.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. R. Saundby.	Mr. W. G. Archer.
Dr. Simon.	Mr. Haslam.

Obstetrical Medical Officer—Dr. Malins.
Resident Medical Officer—Dr. H. Malet.
Resident Surgeon and Surgical Tutor—Mr. H. G. Lowe.
Registrar and Pathologist—Dr. Barling.

QUEEN'S HOSPITAL STAFF.

Consulting Surgeon—Mr. Gamgee.

Physicians.	*Surgeons.*
Dr. Heslop.	Mr. West.
Dr. Sawyer.	Mr. Furneaux Jordan.
Dr. Carter.	Mr. J. St. S. Wilders.
Dr. Hunt.	Mr. Bennett May.

Obstetric Surgeon—Mr. John Clay.
Ophthalmic Surgeon—Mr. Priestley Smith.
Dental Surgeon—Mr. Charles Sims.
House-Physicians—Mr. Orchard and Mr. Vinrace.
House-Surgeons—Mr. Clarke and Mr. Benhall.

CLINICAL PRIZES.

The following prizes will be given annually:—Senior Medical Prizes, for third or fourth year students: First Prize, £5 5s. Senior Surgical Prizes: First Prize, £5 5s. Junior Medical Prizes, for second year students: First Prize, £3 3s. Junior Surgical Prizes: First Prize, £3 3s. Midwifery Prize, £4 4s.

The examination for the above-mentioned prizes will be conducted by the Clinical Board, and, together with various resident hospital appointments, will be open for competition to all students registered by the Clinical Board.

BRISTOL SCHOOL OF MEDICINE.

COURSES OF LECTURES.—WINTER SESSION.

Chemistry—Mr Thomas Coomber.
Descriptive and Surgical Anatomy—Mr. F. Richardson Cross.
Medicine—Dr William H. Spencer and Dr. E. Markham Skerritt.
Surgery—Mr. Nelson C. Dobson.
Physiology—Dr. R. S. Smith.
Practical Anatomy—Demonstrator: Mr. William H. Harsant.
Hygiene—Mr. David Davies.

SUMMER SESSION.

Botany—Mr. Adolph Leipner.
Comparative Anatomy—Professor W. J. Solas
Materia Medica and Therapeutics—Dr. John E. Shaw.
Medical Jurisprudence—Dr. Reginald Eager and Dr Alfred J. Harrison.
Midwifery and Diseases of Women—Dr. Joseph G. Swayne and Dr. A. E. Aust-Lawrence.
Operative Surgery and Surgical Pathology—Mr. W. Powell Keall.
Pathology and Morbid Anatomy—Dr. William H. Spencer and Dr. E. Markham Skerritt
Practical Chemistry—Mr. Thomas Coomber.
Practical Physiology and Histology—Mr. George F. Atchley. Demonstrator: Mr. G. Munro Smith.
Practical Surgery—Mr. Arthur W. Prichard.

BRISTOL ROYAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Honorary and Consulting Physicians—Dr. Alexander Fairbrother, Dr. Frederick Brittan, and Dr. Edward Long Fox
Honorary and Consulting Surgeons—Mr. John Harrison and Mr. Augustin Prichard.

Physicians.

Dr. William H. Spencer.	Dr. Henry Waldo.
Dr. R. Shingleton Smith.	Dr. John L. Shaw.

Surgeons.

Mr. Edmund C. Bourl.	Mr. Arthur W. Prichard.
Mr. Christopher H. Dowson.	Mr. F. Richardson Cross.

Mr. J. Greig Smith.

Assistant-Surgeon—Mr. William H. Harsant.
Medical Superintendent—Mr. J. H. Lee Mannatire.
House-Surgeon—Mr. A. A. Landon.
House-Physician—Mr. C. S. Watson.

This Infirmary was founded in the year 1735, and is one of the largest provincial hospitals in England. It contains 250 beds.

PRIZES.

Suple's Medical Prize, consisting of a gold medal of the value of £5 5s. and about £7 7s. in money, is given annually to the successful candidate in an examination held by the Physicians. The examination comprises reports of cases in the medical wards, and the preparation of morbid specimens illustrative of disease, accompanied, if possible, by microscopic and chemical illustrations, besides written replies to questions in Medicine.

Suple's Surgical Prize corresponds in value and character to the medical one described above. In this case the examination is conducted by the Surgeons, and comprises surgical subjects only.

Clark's Prize.—The interest of £500, bequeathed by the late Henry Clark, Esq., Consulting Surgeon to the Infirmary, will be given annually to the most success-ful student of the third year at the examination held at the Medical School, provided he has attended his hospital practice at the Bristol Royal Infirmary, and can produce certificates of good moral character.

Tibbits' Memorial Prize.—A prize of about £12 12s., founded by public subscription in memory of the late R. W. Tibbits, Esq., Surgeon to the Infirmary, will be awarded annually after a competitive examination.

Crosby Leonard's Prize.—The interest of £300 will be awarded annually for the best reports of Surgical Cases.

Pathological Prize.—The Pathological Clerk at the expiration of his term of office will receive a prize of the value of £3 3s. if his duties have been performed to the satisfaction of the Faculty.

FEES.

An entrance fee of £2 2s. to the Infirmary, and subscription of £1 1s. per annum to the Library. Medical or Surgical Practice, £7 7s. for six months, £12 12s. for one year, £21 perpetual; Medical and Surgical Practice together, in one payment, £21 for one year, £36 15s. perpetual. The above fees include Clinical Lectures. Clinical Clerkship, £5 5s. for six months, £8 8s. for one year; Dressership, £5 5s. for each six months; Obstetric Clerkship, £3 3s. for each three months. These appointments may be taken by senior students not attending practice at the Bristol Royal Infirmary, for an additional payment of £3 3s.

All fees are paid to the Secretary, at the Infirmary.

BRISTOL GENERAL HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Honorary and Consulting Surgeons—Mr. Robert W. Coe, Mr. W. Michell Clarke, Dr. Henry Marshall, Mr. George F. Atchley.
Honorary and Consulting Physician-Accoucheur—Dr. Joseph G. Swayne.

Physicians.	*Surgeons.*
Dr. George F. Barker.	Mr. F. Poole Lansdown.
Dr. E. Markham Skerritt.	Mr. Nelson C. Dobson.
Dr. Alfred J. Harrison.	Mr. William P. Keall.
	Mr. Charles F. Pickering.
Physician-Accoucheur.	*House-Surgeon.*
Dr. A. E. Aust-Lawrence.	Mr. W. I. Penny.
Physician's Assistant.	*Assistant House-Surgeon.*
Mr. J. K. Woolby.	Mr. H. L. Ansted.

Dentist—Mr. Thomas C. Parson.

SCHOLARSHIPS AND PRIZES.

Martyn Memorial Entrance Scholarship.—This scholarship, of the value of £20, founded by public subscription, in memory of the late Dr. Samuel Martyn, Physician to the Hospital, is awarded annually at the commencement of the winter session, after a competitive examination in subjects of general education.

Clarke Scholarship.—A Surgical Scholarship of £15, founded by H. M. Clarke, Esq., of London, is awarded annually, at the end of the winter session, after an examination in Surgery.

Sanders Scholarship.—A scholarship, founded by the late John Nash Sanders, Esq., and consisting of the interest of £500, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

Lady Haberfield Prize.—This prize, founded by the late Lady Haberfield and consisting of the interest of £1000, is awarded annually, at the end of the winter session, after examinations in Medicine, Surgery, and Diseases of Women.

The Martyn Memorial Scholarship and the Lady Haberfield Prize, when not awarded as above, are available for the remuneration of a Museum Curator, to be appointed from amongst the students after a competitive examination in subjects bearing upon the duties of the office.

The rules relating to the several scholarships may be had on application.

FEES.

Medical or Surgical Practice, £6 for six months; £10 for one year; £20 perpetual. Entrance fee for Clinical Clerk or Dresser, £3 3s. for six months. Entrance fee for Obstetric Clerk, £3 3s. for three months. Library fee, £1 1s. per annum.

Further particulars respecting the Infirmary may be known on application to the Dean of the Infirmary Faculty; respecting the Hospital, on application to the Dean of the Hospital Faculty. Information regarding the Medical School will be afforded by the Honorary Secretary of the School, E. Markham Skerritt, M.D., Medical School, University College, Tyndall's Park, Bristol.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

The winter session will be opened on Monday, October 2, when the prizes will be presented by the Right Rev. the Lord Bishop of Newcastle.

The College of Medicine has been considerably enlarged. Another Dissecting-room, sixty feet long, has been built, in addition to that lately constructed. The Library and Museum have been removed and remodelled, and larger rooms have been set apart for the students and teachers, and the Medical Theatre has been extended so as to accommodate 250 students. There are well-fitted laboratories for the study of Practical Chemistry, and special arrangements for students desirous of working at Practical Physiology. Operative Surgery is taught practically during the summer.

The Infirmary contains 230 beds. There are special wards set apart for Diseases of the Eye, for Lock Cases (male and female), and for Children.

Clinical lectures are delivered by the Physicians and Surgeons in rotation three times a week. Pathological demonstrations are given as opportunity offers by the Pathologist. Practical Midwifery can be studied at the Newcastle Lying-in Hospital, where there is an outdoor practice of about 500 cases annually, available for students without fee. At the Infirmary there are special departments for the instruction of students in Ophthalmology, Gynæcology, Dermatology, Diseases of the Throat and Ear, and Bandaging and Minor Surgery.

SCHOLARSHIPS, ETC.

A University of Durham Scholarship, of the value of £25 a year for four years, for proficiency in Arts, awarded annually to full students in their first year.

The Dickinson Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology.

The Tulloch Scholarship, value £20 annually, for Anatomy, Physiology, and Chemistry.

The Charlton Scholarship, value £30 annually, with (in addition) a gold medal, for Medicine.

The Gibb Scholarship, value £25 annually, for Pathology.

At the end of each session a silver medal and certificates of honour are awarded in each of the regular classes.

An Assistant Curator of the Museum is appointed annually from among the senior students, and receives an honorarium of £12 for the year.

Four Assistant Demonstrators of Anatomy, receiving each an honorarium of £9, and two Assistants to the Lecturer on Practical Physiology, are appointed yearly.

Four times in the year, two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers (eight for the In-patients, and eight for the Out-patient Department), are nominated by the Medical Board, and, if approved, are appointed by the House Committee for three months.

Assistants in the Pathological Department, and two Assistants to the Dental Surgeon, are appointed in March and October.

FEES FOR HOSPITAL PRACTICE AND LECTURES.

1. A composition ticket for the complete course of lectures at the College may be obtained (1) by the payment of £63 on entrance; (2) by two payments each of £36 15s. at the commencement of the first and second winter sessions; (3) by the payment of three annual instalments, the first of £31 10s., the second of £26 5s., and the third of £21, at the commencement of each sessional year.

2. Fees for attendance on Hospital Practice:—Three months, £5 5s.; six months, £8 8s.; one year, £12 12s.; perpetual, £26 5s.; or by instalments at the commencement of the sessional year, viz.:—First year, £12 12s.; second year, £10 10s.; third year, £6 6s.; or by two instalments, viz.:—First year, £14 14s.; second year, £12 12s.

3. Single courses of lectures or tutorial classes, £5 5s.

Further particulars may be obtained from Dr. Luke Armstrong, Registrar, Clayton-street West; or Mr. Henry E. Armstrong, Secretary, 6, Wentworth-place, Newcastle-upon-Tyne.

STAFF OF THE COLLEGE

Anatomy—Mr J. Russell and Dr. W. P. Mears.
Physiology—Dr. D. Drummond and Mr. G. E. Williamson.
Medicine—Prof. G. H. Philipson.
Surgery—Dr. G. Y. Heath and Dr. W. C. Arnison.
Chemistry—Prof. Bedson, assisted by Mr. J. T. Dunn.
Dissections—Dr. W. P. Mears.
Public Health—Mr. H. E. Armstrong.
Diseases of Women—Dr. C. Gibson.
Midwifery—Dr. T. C. Nesham.
Medical Jurisprudence—Dr. F. Page.
Botany—Dr. J. Murphy.
Therapeutics—Dr. T. W. Barron.
Materia Medica—Dr. S. M. Bean.
Pathology—Dr. C. J. Gibb.
Operative Surgery—Dr. L. Armstrong.
Practical Physiology—Dr. T. Oliver.
Psychology—Mr. R. H. B. Wickham.
Medical Tutor—Dr. W. P. Mears.
Tutor in Arts—Rev. J. Bulmer.

NEWCASTLE-UPON-TYNE INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Physicians—Dr. Philipson, Dr. Drummond, and Dr. Oliver.
Surgeons—Dr. Arnison, Dr. Armstrong, Dr. Heath, and Mr. Page.
Assistant-Surgeons—Mr. G. E. Williamson and Mr. T. A. Dodd.

MEDICAL FACULTY OF UNIVERSITY COLLEGE, LIVERPOOL.

ROYAL INFIRMARY SCHOOL OF MEDICINE.

PROFESSORS AND LECTURERS.

Medicine—Dr. A. T. H. Waters.
Surgery—Mr. Rushton Parker.
Anatomy—Mr. W. Mitchell Banks.
Physiology—Dr. Richard Caton.
Pathology—Dr. A. Davidson.
Ophthalmology—Mr. T. S. Walker.
Chemistry—Dr. J. C. Brown.
Experimental Physics—Dr. O. J. Lodge.
Midwifery and Gynæcology—Dr. J. Wallace.
Clinical Medicine—Dr. A. T. H. Waters, Dr. T. R. Glynn, and Dr. A. Davidson.
Clinical Surgery—Messrs. E. B. Bickersteth, Reginald Harrison, and W. Mitchell Banks.
Diseases of Children—Dr. R. Gee.
Materia Medica—Dr. W. Carter.
Medical Jurisprudence—Dr. Ewing Wattle.
Botany—Dr. George Shearer.
Comparative Anatomy—Dr. Herdman.

DEMONSTRATORS.

Histology and Practical Physiology—Mr. F. T. Paul.
Practical Anatomy—Dr. Hyla Greves.
Chemistry—Mr. Snape.

ROYAL INFIRMARY, LIVERPOOL.

Consulting Physician—Dr. Turnbull.
Consulting Surgeon—Mr. Hakes.
Physicians—Dr. Waters, Dr. Glynn, and Dr. Davidson.
Surgeons—Mr. Bickersteth, Mr. Harrison, and Mr. Banks.
Obstetric Physician—Dr. Wallace.
Assistant-Surgeon—Mr. Parker. *Pathologist*—Mr. Paul.
Dental Surgeon—Mr. Phillips.
Surgeon to the Eye Hospital—Dr. Bernard, Mr. F. W. Lowndes.

The Infirmary contains nearly 300 beds. There are special wards for the treatment of Uterine and other Diseases of Women.

The Medical and Surgical Tutors give practical instruction in case-taking and clinical observation generally every morning in the wards.

The Lock Hospital, adjoining the Infirmary, contains sixty beds.

SCHOLARSHIPS AND PRIZES.

Roger Lyon Jones Scholarships.—One Lyon Jones Scholarship (£21 for two years) will be awarded in October to the applicant who has taken highest place in Honours at the matriculation examination of the London University. One or two of these scholarships will be awarded by written examination in English, Classics, Mathematics, Modern Languages and Physics, in September next. Successful candidates must become composition ticket-holders of the School. Another Lyon Jones Scholarship (£21 for two years) is awarded to second-year students for proficiency in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry.

The Derby Exhibition (£15 for one year) is awarded annually by competitive examination to third or fourth year students.

A Lyon Jones Gold Medal will be awarded to the senior student who passes the best examination in Medicine, Surgery, Pathology, and Midwifery, provided a sufficiently high standard of merit be attained.

Torr Medal.—A gold medal for Anatomy and Physiology, presented by Mr. John Torr, M.P., is awarded to the first student in the second year subjects.

Bligh Medal.—This gold medal, which is presented annually by Dr. John Bligh, Liverpool (also for the encouragement of the study of Anatomy and Physiology), is awarded to the first student in the first-year subjects.

Many other medals and prizes are also awarded.

FEES.

Composition Fee.—A payment of £63 on entrance or in two equal instalments (one-half on entrance, and the remainder within twelve months), entitles the student to attendance on all the lectures and demonstrations required for the Membership of the Royal College of Surgeons, the Licence of the College of Physicians and the Apothecaries' Society. Perpetual hospital fee, £42.

The new Physical Laboratories, under the charge of Professor Lodge, are now open; and also the new Zoological Laboratories, under the charge of Professor Herdman.

For prospectuses and all further information, apply to the Dean of the Medical Faculty, Dr. Caton, 18A, Abercromby-square, Liverpool.

LIVERPOOL NORTHERN HOSPITAL.(a)

MEDICAL AND SURGICAL STAFF.

Physicians—Dr. E. H. Dickinson and Dr. R. Caton.
Surgeons—Mr. Maufold, Mr. Puzey, and Dr. McF. Campbell.
House-Physician—Mr. C. Shears.
House-Surgeon—Mr. G. G. Hamilton
Assistant House-Surgeon.—Mr. W. R. Parker.

The Hospital contains 146 beds (including special Children's Ward).

Fees for hospital practice and clinical lectures—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to Medical or Surgical Practice separately on payment of half the above fees. Practical Pharmacy, £2 2s. for three months.

Attendance on the practice of this Hospital qualifies for all the examining boards.

For further particulars, apply to the House-Surgeon.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Physicians—Dr. Cameron, Dr. Carter, and Dr. Williams.
Consulting Surgeons—Mr. Higginson and Mr. Nottingham.
Surgeons—Mr. Hamilton, Dr. Little, and Mr. Paul.
Senior House-Surgeon—Dr. Davison.
Junior House-Surgeons—Mr. Sellers and Mr. Fitzpatrick.

There are 200 beds in this Hospital.

Clinical lectures given by the Physicians and Surgeons during the winter and summer sessions. Clinical clerkships and dresserships open to all students. Special wards for Accidents and Diseases of Children. Rooms for a limited number of resident students.

Fees for hospital practice and clinical lectures—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months £4 4s.

The practice of the Hospital is recognised by all the examining bodies. Further information can be obtained from the Senior House-Surgeon.

VICTORIA UNIVERSITY, MANCHESTER (MEDICAL DEPARTMENT).

PROFESSORS AND LECTURERS.—WINTER SESSION.

Chemistry—Dr. Henry E. Roscoe
Comparative Anatomy — Dr. A. Milnes Marshall.
Descriptive and Practical Anatomy—Dr. Morrison Watson.
General Pathology and Morbid Anatomy—Dr. Julius Dreschfeld
Hospital Instruction — Physicians and Surgeons to Royal Infirmary.
Clinical Medicine — Dr. William Roberts.
Principles and Practice of Medicine—Dr. J. E. Morgan
Organic Chemistry—Mr. C. Schorlemmer, F.R.S.
Physiology and Histology — Dr. Arthur Gamgee.
Surgery—Mr. Edward Lund
Practical Surgery — Mr. Thomas Jones.
Surgical Pathology—Mr. Alfred H. Young.

SUMMER SESSION.

Botany—Mr. W. C. Williamson, F.R.S.
Diseases of Children—Dr. Henry Ashby.
Embryology—Dr. Milnes Marshall.
Hygiene and Public Health—Dr. Arthur Ransome
Materia Medica and Therapeutics—Dr. Leech.
Medical Jurisprudence—Dr. C. J. Cullingworth.
Mental Diseases—Mr. G. W. Mould.
Midwifery and Diseases of Women—Dr. J. Thorburn
Operative Surgery — Mr. Thomas Jones
Ophthalmology—Dr. D. Little.
Practical Chemistry—Dr. Henry E. Roscoe.
Practical Morbid Histology—Dr. J. Dreschfeld.
Practical Physiology and Histology—Dr. Arthur Gamgee.

Demonstrator in Physiology—Mr. W. H. Waters, M.A.
Demonstrators in Anatomy—Mr. A. Fraser and (vacant).
Registrar—Mr. J. Holme Nicholson
Dean of the Medical School—Professor Gamgee, M.D., F.R.S.

(a) No return.

SCHOLARSHIPS AND PRIZES.

A Turner Scholarship of £25 for fourth year's students. Prizes in books or instruments varying from £3 3s. to £5 5s. will be offered for competition in the several classes.

Platt Physiological Scholarships.—Two Scholarships of £50 each, tenable for two years, one of which is offered annually, are open to the competition of all students of the College who shall have studied Physiology in the College laboratory during one entire session, and whose age on January 1 preceding the examination shall not be under eighteen nor over twenty-five years.

Platt Exhibitions, value £15 each, are offered for competition in the senior and junior classes of Physiology respectively.

Dunville Surgical Prize, value £20. The prize will consist of books or surgical instruments at the option of the winner.

Dauntesey Medical Scholarship.—The Scholarship is of the value of about £110, and is tenable for one year.

Gilchrist Scholarships.—Three of £50 each, tenable for three years, one of which is annually awarded to the candidate who shall stand highest at the Matriculation Examination of the University of London in June, provided he pass in the honours division, and, failing such, two of £25 each will be given to the two candidates who stand highest in the first division.

FEES.

A composition fee, of £63, payable in two sums of £31 10s. each at the commencement of the first and second years of studentship, admits to the four years' course of study. Students desirous of repeating attendances on any class after the expiration of the four years' course, will be allowed to do so on paying for each class attended one-third of the fee payable by students who do not compound. A student, however, who desires to continue his study of Practical Anatomy beyond two sessions, will be required to pay at the rate of £2 2s. for a three months' or £3 3s. for a six months' course.

Extra fees are charged for attendance on the practical classes in Botany and in Comparative Anatomy, and for Operative Surgery. Tutorial classes are held in Anatomy and Physiology (fee £2 2s.), and in Chemistry, Zoology, and Botany (fee 10s. 6d. for each class).

A charge of £1 1s. is also made for the chemicals used in the class of Practical Chemistry.

MANCHESTER ROYAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. R. F. Ainsworth, Dr. Frank Renaud, and Dr. Henry Browne.
Consulting Surgeon—Mr. George Bowring.

Physicians.	*Surgeons.*
Dr. William Roberts.	Mr. F. A. Heath.
Dr. Henry Simpson.	Mr. Edward Lund.
Dr. John E. Morgan.	Mr. Walter Whitehead.
Dr. Daniel J. Leech.	Mr. Thomas Jones.
Assistant-Physicians.	*Assistant-Surgeons.*
Dr. Julius Dreschfeld.	Mr. James Harrie.
Dr. James Ross.	Mr. F. Armitage Southam.
Curator Physicians.	*Ophthalmic Surgeon.*
Dr. John Thorburn.	Dr. Little.

Dental Surgeon—Mr. G. W. Smith.
Resident Medical Officer—Dr. Graham Steell.
Resident Surgical Officer—Mr. E. H. Howlett.
Medical Supt. of the Royal Lunatic Hospital at Cheadle—Mr. G. W. Mould.
Medical and Surgical Registrar—Mr. G. A. Wright
Pathological Registrar—Dr. A. H. Young.
General Superintendent and Secretary—Mr. W. L. Saunder.

STUDENTS' FEES.

Medical Practice.—Three months, £4 4s.; six months, £8 8s.; twelve months, £12 12s.; full period required by the examining board, £18 18s.

Surgical Practice.—Three months, £6 6s.; six months, £9 9s.; twelve months, £18 18s.; full period required by the examining board, £31 10s.

Composition Fee.—The fees for the full period required by the examining boards of both medical and surgical practice may be paid by a composition fee of £42 on entrance, or by two instalments of £22 each at an interval of twelve months.

In addition to the practice of the Infirmary, the Monsall Fever Hospital and the Barnes Convalescent Home will also be open, under certain regulations, to students for the purposes of instruction.

SHEFFIELD SCHOOL OF MEDICINE.

LECTURES.—WINTER SESSION.

Anatomy, Descriptive and Surgical—Mr. E. Skinner Mr. Snell
Clinical Surgery—The Surgeons of the Infirmary and Public Hospital and Dispensary.
Clinical Medicine—The Physicians of the Infirmary and Public Hospital and Dispensary.
Physiology—Dr. Dixon.
Chemistry—Mr. Allen.
Demonstrations of Anatomy—Dr. Davison.
Principles and Practice of Medicine—Dr. Bartolomé, Dr. Banham, Dr. W. R. Thomas.
Principles and Practice of Surgery—Mr. W. F. Favell, Mr. A. Jackson.
Lecturer on Diseases of the Eye—Mr. Snell.

SUMMER SESSION.

Botany—Mr. Birks.
Demonstrations of Pathology and Microscopy—The House-Surgeon (at the Infirmary).
Demonstrations of Operative Surgery—Mr. Favell.
Demonstrations of Practical Histology and Physiology—Mr. R. J. Pye-smith.
Practical Chemistry—Mr. Allen.
Materia Medica and Therapeutics—Dr. Young.
Medical Jurisprudence and Toxicology—Mr. Bell.
Midwifery and Diseases of Women—Dr. Hime.
Practical Surgery—The House-Surgeon (at the Infirmary).
Public Medicine—Dr. Drew.

SHEFFIELD GENERAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Physicians.	*Surgeons.*
Dr. Bartolomé.	Mr. Barber.
Dr. Law.	Mr. Favell.
Dr. Basham.	Mr. Jackson.

Ophthalmic Surgeon—Mr. Snell.
House-Surgeon—Dr. W. S. Porter.

The Infirmary contains 180 beds for in-patients.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

Physicians.	*Surgeons.*
Dr. H. J. Branson.	Dr. Keeling.
Dr. Dyson.	Mr. Thorpe.
Dr. W. R. Thomas.	Mr. Pye-smith.

House-Surgeon—Mr. Gubbin.

This Hospital contains 105 beds. Recognised by the Royal College of Surgeons.

FEES.

One fee admits to the Infirmary and the Public Hospital and Dispensary. For the summer session, £3 3s.; for the winter session, £6 6s. for Medicine, and the same for Surgery.

SHEFFIELD HOSPITAL FOR DISEASES OF WOMEN.[a]

MEDICAL OFFICERS.

Dr. Keeling, Dr. Hime, Mr Woolhouse, Mr R. Favell.

FEES.

Anatomy and Physiology, first course, £6 6s.; second course, £4 4s. Practice of Medicine, first course, £4 4s.; second course, £2 2s. Practice of Surgery, first course, £4 4s. Chemistry, first course, £4 4s. Midwifery and Diseases of Women, first course, £3 3s. Materia Medica, first course, £3 3s. Medical Jurisprudence, first course, £3 3s. Botany, first course, £3 3s. Practical Chemistry, first course, £3 3s. Practical Physiology, £3 3s. Practical Surgery, £3 3s. These fees include demonstrations, but not Tutor's fee, which is £2 2s.

Perpetual fee for attendance on all the lectures required by the Royal College of Surgeons and the Apothecaries' Hall, £45.

All further information may be obtained on application to the Hon. Secretary, Arthur Jackson, Wilkinson-street, Sheffield.

LEEDS SCHOOL OF MEDICINE.

CLASSES AND LECTURES.

Descriptive Anatomy—Mr. John A. Nunneley, Mr. Edmund Robinson, and Mr. A. F. McGill
Demonstrator of Anatomy—Mr. A. W. M. Robson; assisted by Dr. J. B. Hellier, Mr. R. N. Hartley, Mr. F. P. Flood, Mr W. H. Brown, and Mr. H. Rowe.
Physiology and General Anatomy—Mr. Chas. J. Wright and Mr. John Horsfall.
Practical Physiology and Histology—Mr. James Walker.
Demonstrator of Physiology—Dr. Ernest H. Jacob, assisted by Dr. A. G. Barrs.
Medicine—Dr. T. Clifford Allbutt and Dr. John Edwin Eddison.
Surgery and Practical Surgery—Mr T. R. Jessop, and Mr. Edward Atkinson.
Clinical Medicine—Dr. T. Clifford Allbutt, Dr. John Edwin Eddison, and Dr. Thomas Churton.
Clinical Surgery—Mr C. G Wheelhouse, Mr T P Teale, Mr T. R. Jessop, and Mr Edward Atkinson.
Forensic Medicine—Mr. Thomas Scattergood.
Midwifery—Mr. W. N. Price, and Dr. James Braithwaite.
Materia Medica and Therapeutics—Dr. Thomas Churton.
Pathology and Morbid Anatomy—Mr. A. W. M. Robson.
Demonstrator of Morbid Histology—Dr. Ernest H Jacob.
Mental Diseases—Dr. H. C. Major
Chemistry (at the Yorkshire College)—Prof. T. E. Thorpe.
Practical Chemistry (at the Yorkshire College)—Prof. T. E. Thorpe, assisted by Mr C. H Bothamley.
Botany (at the Yorkshire College)—Prof. L. C. Miall.
Comparative Anatomy and Zoology (at the Philosophical Hall)—Prof. L. C. Miall.

Resident Curator—Mr. F. H. Mayo.

LEEDS GENERAL INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. Charles Chadwick.
Consulting Surgeon—Mr. Samuel Hey.

Physicians.	*Surgeons.*
Dr. T. Clifford Allbutt.	Mr. C. G. Wheelhouse.
Dr. John Edwin Eddison.	Mr. T. Pridgin Teale.
Dr. T. Churton.	Mr. T. R. Jessop.
	Mr Edward Atkinson.

Surgeons to the Ophthalmic and Aural Department.
Mr John A. Nunneley and Mr. R. P. Oglesby.
Dental Surgeon—Mr. F. Carter.

[a] No return.

SCHOLARSHIPS AND PRIZES.

The Hardwick Clinical Prize.—Candidates for this prize must be in attendance on the lectures of the Leeds School of Medicine, and must have completed their first year's course there. They must be in registered attendance upon the medical practice of the Hospital, and have served the office of Clinical Clerk, or be holding that office at the time of competition. The prize is given annually for the best set of reports of medical cases in the Hospital during the winter session, subject to such regulations as may be laid down at the commencement of the session. Its value is £10 in money. Should the funds admit, a second prize may be given.

The Surgeons' Clinical Prizes.—Three prizes of the value of £8, £5, and £3 in money are offered annually by the Surgeons of the Hospital, subject to conditions similar to those relating to the Hardwick Prize.

The Thorp Prize in Forensic Medicine.—A sum of £20 (founded by a former Lecturer and present honorary member of the Council) is awarded at the close of each summer session, in one or more prizes, subject to such regulations as may be made from time to time, of which due notice will be given.

Competitive Class Examinations.—At the close of each session, competitive examinations are held, when silver and bronze medals, books, and certificates of honour are awarded according to merit; but in no cases will prizes be awarded unless a reasonable standard of merit has been attained.

Prosectors.—Three prosectors are selected annually from the senior students to prepare the necessary dissections or lectures, and to assist the Demonstrators of Anatomy and Resident Curator.

FEES.

The fees for school lectures and for hospital practice (which includes clinical lectures) are distinct, and are paid separately.

Students may enter for single courses of lectures, or pay a composition fee. All students, however, must pay an entrance fee of £1 1s., which confers the privilege of using the library and reading-room.

The composition fee is £52 10s., if paid in one sum on entrance; or £27 6s. on entrance, and the same amount at the expiration of twelve months.

This composition fee, when the payment is completed, entitles a student to attend all the school lectures required for the examinations for the licence of the Royal College of Physicians of London, the membership of the Royal College of Surgeons of England, and the licence of the Society of Apothecaries. It also gives admission to one course of the lectures and demonstrations on Mental Diseases, but not to the lectures on Comparative Anatomy.

The fee of 10s. 6d. is charged to students attending the demonstrations of Morbid Histology, for the use of reagents and apparatus.

Fees for medical practice and clinical lectures:—One summer session, £6 6s.; one winter session, £7 7s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21; perpetual, £26 5s.

Fees for surgical practice and clinical lectures:—One summer session, £6 6s.; one winter session, £7 7s.; twelve months, £12 12s.; eighteen months, £15 15s.; three years, £21; perpetual, £26 5s.

Instruction in vaccination, as required by the College of Surgeons and by the Poor-law Board, is given by one of the Public Vaccinators—fee £1 1s. Students must attend on Tuesdays, at 3 p.m., for six weeks.

All further information may be obtained from the Honorary Secretary, Mr. John Horsfall, Hillary House, Leeds.

SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF EDINBURGH.—FACULTY OF MEDICINE.

SESSION 1882-83.

Principal—Sir Alexander Grant, Bart., LL.D.

WINTER SESSION.

THE session will be opened on Tuesday, October 24, 1882.

*Anatomy—Prof. Turner.
*Anatomical Demonstrations—Prof. Turner.
Chemistry—Prof. Crum Brown.
Clinical Medicine—Profs. Maclagan, Grainger Stewart, T. R. Fraser, and Greenfield (Prof. Simpson on Diseases of Women.)
Clinical Surgery—Prof. Annandale.
*Genl. Pathology—Prof. Greenfield.
*Institutes of Medicine or Physiology—Prof. Rutherford.
Materia Medica—Prof. T. R. Fraser.
*Midwifery and Diseases of Women and Children—Prof. Simpson.
*Practical Natural History—Prof. Ewart
*Practice of Physic—Prof. Grainger Stewart.
*Surgery—Prof. Chiene.

WINTER AND SUMMER SESSION.

*Anatomical Demonstrations—Prof. Turner.
Bandaging and Surgical Appliances—Prof. Chiene.
*Operative Surgery—Prof. Chiene.
*Obstetrical and Gynæcological Operations—Prof. Simpson.
*Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology—Prof. Rutherford.
*Practical Anatomy—Prof. Turner.
Practical Chemistry—Prof. Crum Brown.

* In University New Buildings.

SUMMER SESSION.

Practical Instruction in Mental Diseases at an Asylum — Dr. Clouston, Lecturer.
Practical Natural History — Prof. Ewart.
Practical Morbid Anatomy and Pathology—Prof. Greenfield.
Practical Botany—Prof. Dickson.
Vegetable Histology—Prof. Dickson.
Tutorial Class of Clinical Medicine in the Wards of the Royal Infirmary by the Clinical Tutor, Dr. Jas. Murdoch Brown.

During the summer session lectures will be given on the following subjects:—

Anatomical Demonstrations—Prof. Turner.
Botany—Prof. Dickson.
Chemistry—Prof. Crum Brown.
Clinical Medicine—Profs Maclagan, Grainger Stewart, T. R. Fraser, and Greenfield. (Prof. Simpson on Diseases of Women)
Clinical Surgery—Prof. C. Annandale
Mental Diseases, with Practical Instruction at Morningside Asylum—Dr. Clouston, Lecturer.
Medical Jurisprudence—Prof. Maclagan.
Natural History—Prof. Ewart.
Obstetrical and Gynecological Operations—Prof. Simpson.

Information relative to matriculation and the curricula of study for degrees, examinations, etc., will be found in the University Calendar, and may be obtained on application to the Secretary at the College.

A list of fees is given on the next page.

During the summer session the following means are afforded for practical instruction:—

The *Dissecting Rooms* are open daily, under the Superintendence of the Professor, assisted by Arthur Thomson, M.B., W. Bannerman, M.B., C.M., and other assistants.

The *Royal Edinburgh Asylum* is open to members of the class of Medical Psychology exclusively for practical instruction in Mental Diseases by the Physician-Superintendent, Dr. Clouston.

Chemical Laboratories.—The laboratory for instruction in Analytical Chemistry and for chemical investigation, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc., John Gibson, Ph.D., and Leonard Dobbin, Ph.D., is open from ten to four. The Laboratory for Instruction in Practical Chemistry, under the superintendence of the Professor, assisted by R. M. Morrison, D.Sc.

The *Physiological Laboratory* is open daily for physiological investigation, under the superintendence of the Professor, assisted by J. P. Anderson Stuart, M.B.

The *Physical Laboratory* is open daily from ten to three, under the superintendence of Professor Tait.

The *Medical Jurisprudence Laboratory* is also open daily from ten to three, under the superintendence of the Professor, assisted by James Allan Gray, M.D.

The practice of Obstetrical and Gynecological Operations is carried out in the Obstetrical Museum, under the superintendence of the Professor, assisted by A. H. Barbour, M.A., M.B., C.M.

The *Natural History Laboratory* is open daily, under the superintendence of Professor Ewart, assisted by R. J. Harvey Gibson, M.A.

The *Natural History Museum* in the Museum of Science and Art, Chambers-street, is accessible to the students attending the Natural History Class.

The *Royal Botanic Garden*, *Herbarium*, and *Museum* are open daily.

MEDICAL FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, ETC

Fellowships.

The Falconer Memorial Fellowship, value £100, tenable for two years. It is for the encouragement of the study of Palæontology and Geology, and is open to graduates in Science or Medicine of the University of not more than three years' standing.

The Syme Surgical Fellowship, value about £100, tenable for two years, open to competition among Bachelors of Medicine of not more than three years' standing, who shall present the best thesis on a surgical subject, giving evidence of original research.

The Leckie-Mactier Fellowship, consisting of the free annual proceeds of £2000, open to competition to Bachelors of Medicine of not more than three years' standing. The Fellowship to be tenable for three years, and the next award will be in November, 1882. The examination will comprise written reports and commentaries on three medical cases, three surgical cases, and one gynæcological case in the University wards in the Royal Infirmary; a written examination in Midwifery, Medical Jurisprudence, and Public Health; and an oral examination in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health.

Scholarships.

The Sibbald Scholarship, value about £40, tenable for four years.

A Hope Prize Scholarship, value about £30, will be awarded in March, 1883, to the most distinguished junior student in the chemical laboratory during the winter session.

The Thomson Scholarship, of the value of £40 yearly, tenable for four years, will be awarded in October, 1882; the subjects of examination, Botany, Zoology, and Elementary Mechanics. Candidates to be matriculated students about to commence their first winter session in the Medical Faculty; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh.

Vans Dunlop Scholarships: Six scholarships, of the annual value of £100, tenable for four years—one to be awarded in March, 1884, to the candidate who, at the preliminary examination in March or the preceding October, shall have obtained the highest total number of marks required to enable him to appear for a professional examination, one in July, 1884, to the candidate who obtains the highest marks in Botany, Zoology, Chemistry, and Anatomy; one in March, 1884, for the highest marks in Physiology and Surgery; the other three to be awarded to those students who, at the end of the third winter session, shall obtain the highest number of marks in an examination, specially conducted for the purpose, on Anatomy, Physiology, Materia Medica, and Pathology—one scholarship, to be awarded in April, 1883, another in April, 1884, the third in April, 1885, and so on in each successive year.

The Vans Dunlop Scholarships in Chemistry and Chemical Pharmacy, and in Natural History, including Botany and Geology.—These Scholarships are of the value of about £100, and are tenable for three years.

The Goldstream Memorial Medical Missionary Scholarship, consisting of the free annual proceeds of at least £400, is open to students of Medicine who intend to prosecute their studies in the University of Edinburgh, and who propose to devote their lives to the calling of a Medical Missionary. The Scholarship is tenable for four years, and the next award may be made in October, 1883.

The Buchanan Scholarship, consisting of the annual proceeds of £1000, will be awarded every year on the day of medical graduation, for proficiency in Midwifery and Gynæcology. The award will be based upon the results of competitive examinations in the class of Midwifery and Diseases of Women and Children, upon the character of the records kept of cases treated in the gynæcological section of the class of Clinical Medicine, and upon the appearance made by the candidate at the final graduation examination.

The Murchison Memorial Scholarship, tenable for one year, and consisting of the annual proceeds of about £1000, will be awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates to be registered medical students in attendance for not less than four nor more than six years at hospitals and classes in London and Edinburgh, recognised by the College of Physicians of London, or the University of Edinburgh. The first competition took place in London in April, 1882, and the next will take place in Edinburgh in April, 1883.

The "James Scott" Scholarship in Midwifery, consisting of the annual proceeds of £100, founded by Mrs. Thomson, of Rosalee, Hawick, in memory of her father, the late James Scott, of Allanshaws.

Bursaries.

The Abercromby Bursary of £20, tenable for four years, is open to students who have been brought up in Heriot's Hospital during their medical curriculum.

The Sibbald Bursaries are open to the sons of duly registered medical men practising, or who may have practised in Scotland, and to the sons of parents who are, or who may have been, householders in Edinburgh. They are of the value of £10 each, tenable for four years, and available for the Faculty either of Arts, Law, Medicine, or Divinity.

Eight Thomson Bursaries, value £25 each, tenable for four years; one to be competed for each March and October, at the preliminary examinations required from candidates for graduation in Medicine. Candidates shall be those about to commence their medical curriculum, who shall attend the said preliminary examinations, and who shall pass in a sufficient number of subjects to enable them to appear for a professional examination; a preference to be given to candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh. Information as to the Thomson Bursaries and Scholarship may be got from Messrs. Traquair, Dickson, and Mclaren, W.S., 11, Hill-street, Edinburgh.

Four Grierson Bursaries of £20 a year.

One Tyrrell-Bruce Bursary of £25, tenable for one year, to be competed for by students who have reached the end of their third winter session—subjects of examination, to be Materia Medica and Pathology. Competitors for the above bursaries must have studied the subjects of examination at the University of Edinburgh; and these are not to be held along with any other bursary or fellowship.

Two Dr. John Aitken Carrie's Medical Bursaries, of the value of £25 each, tenable for one year, to be awarded at the end of each winter session—one to a first year's student for proficiency shown in the ordinary class examinations in Anatomy and Chemistry; one to a second year's student for proficiency shown in the ordinary class examinations in Anatomy and Physiology.

Two Mackenzie Bursaries, consisting of the proceeds of £1000, to be awarded annually—one to the student in the junior class of Practical Anatomy, and one to the student in the senior class of Practical Anatomy, who shall respectively display the greatest industry and skill in their Practical Anatomy work during the winter session.

Prizes.

The Ettles Medical Prize is awarded annually to the graduate in Medicine whom the Medical Faculty may consider the most distinguished of the year. Value about £40. The Bennet Prize will be awarded annually to the candidate for the degrees of M.B. and C.M. who, after having attended within the University, courses of Anatomy, Surgery, and Clinical Surgery, qualifying for graduation, shall obtain the highest number of marks in those subjects during his examination for these degrees. Value about £40.

The Hope Chemistry Prize, open to all students of the University of not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the Chemical Laboratory of the University. Value £100.

The Nell Arnott Prize, of about £40, is awarded to the candidate who shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. Candidates must have been medical students of this University during either a summer or a winter session, and the successful candidate must continue a medical student of this University during the winter session. No student can appear for examination after the completion of his third *annus medicus*; no candidate shall be allowed to offer himself more than once.

The Ellis Prize for the best essay "On the Respiration of Plants as distinguished from their Nutrition," is open to students or graduates of five years' standing. Value, proceeds of the sum of £500 accumulated for three years.

The Goodsir Memorial Prize of £60 is awarded triennially for the best essay containing results of original investigations in Anatomy or in Experimental Physiology.

The Wightman Prize is awarded to the student of the class of Clinical Medicine who shall write the best report and commentary on cases treated in the University clinical wards during the academic year.

The Cameron Prize, consisting of the free income of £2000, to be given yearly to the member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding the award.

The Doobie-Smith Gold Medal in Botany is open for competition on each alternate year to all matriculated students of the year of award, for an essay on a botanical subject. The subject of the first competition is "On the Geographical and Botanical Distribution of Algæ," and the essay is to be accompanied with a collection of algæ from the Firth of Forth or from the Firth of Clyde. Competing essays to be sent to the Dean of the Faculty of Medicine on or before July 1, 1883. The prize will be awarded to the success-ful competitor at the graduation ceremony of August, 1883.

The Medical Faculty Prizes.—Gold medals are given on the day of graduation to Doctors of Medicine whose theses are deemed worthy of that honour.

Lectureship.

The Swiney Lectureship on Geology, value £144, tenable for five years, is open to Doctors of Medicine of the University of Edinburgh. It is in the patronage of the trustees of the British Museum.

MINIMUM COST OF ATTENDING THE MEDICAL CLASSES, WITH THE ORDER OF STUDY.

Whilst there is no authorised order of study, the usual course is given below—Preliminary Examination in Arts to be taken in the month of March or October, before entering medical classes. By order of the General Medical Council, all medical students require to be registered as such within fifteen days after the commencement of the session. Students are recommended to commence their medical studies by attending the summer session.

First Summer Session.—Preliminary examination fee, 10s; matriculation fee, 10s.; Botany (garden fee, 5s.), £4 4s.; Natural History, £4 4s.; total, £9 8s.

First Winter Session.—Matriculation (for whole year), £1; Anatomy, £4 4s.; Practical Anatomy, £3 3s.; Chemistry, £4 4s.; hospital, £6 6s. (perpetual ticket, £12); total, £18 17s.

Second Summer Session.—Botany or Natural History, if not attended previously; Practical Chemistry, £1 1s.; examination in Botany, Natural History, and Chemistry, in October following, £3 3s.; total, £8 8s.

Second Winter Session.—Matriculation, £1; Institutes of Medicine, £4 4s.; Surgery, £4 4s.; hospital, £6 6s.; examination in Botany, Natural History, and Chemistry, in April, if not previously passed; total, £15 14s.

Third Summer Session.—Practical Pharmacy, £3 3s.; hospital; total, £3 3s.

Third Winter Session.—Matriculation, £1; Materia Medica, £4 4s.; Pathology, £4 4s.; Clinical Surgery, £4 4s.; hospital; examination in Anatomy, Physiology, Materia Medica, Pathology, in April or July, £5 5s.; total, £18 17s.

Fourth Summer Session.—Medical Juri-prudence, £1 4s.; outdoor dispensary, £2 2s.; hospital and clinical lectures; total, £6 6s.

Fourth Winter Session.—Matriculation, £1; Practice of Medicine, £4 4s.; Midwifery, £4 4s.; Practical Midwifery, £1 1s.; Clinical Medicine, £4 4s.; Vaccination, £1 1s.; outdoor dispensary, £1 1s.; hospital; total, £16 15s.

Fifth Summer Session.—Hospital; final examination for M.B. and C.M., £10 10s.; total minimum expenses for M.B. and C.M., £107 1s.

Only one course of instruction on each subject is here stated, that being the minimum.

Fees for Degrees.—Examination in Botany, Chemistry, chemical testing, and Natural History, £5 5s.; examination in Anatomy, Institutes of Medicine, Materia Medica, Pathology, £5 5s.; final examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, and prescriptions, during last summer session, £10 10s.; registration fee, £1; total fees for M.B. diploma, £32. Additional fee for M.D. diploma, £5 5s.; Government stamp-duty for M.D. only, £10.

Note.—Total fees and stamp for graduating as M.D. only, by regulations for students commencing before February, 1861, £25; registration, £1.

N.B.—The above fees include all charges for the diplomas.

Further information as to the classes, courses of lectures, etc., may be obtained on application to Thomas R. Fraser, M.D., Dean of the Faculty of Medicine; or from the University Calendar, published by James Thin, Edinburgh.

The new buildings intended for the Faculty of Medicine to the University are now sufficiently advanced to admit of the departments of Institutes of Medicine and General Pathology being removed there for the ensuing winter session, in addition to the departments of Anatomy, Surgery, Practice of Physic, and Midwifery, which were carried on there during the past session.

ROYAL INFIRMARY, EDINBURGH.

In this Hospital a portion of the beds is set apart for clinical instruction by the Professors of the University of Edinburgh. Courses of Clinical Medicine and Surgery are also given by the ordinary Physicians and Surgeons. Special instruction is given in the Medical Department on Diseases of Women, Physical Diagnosis, etc., and in the Surgical Department on Diseases of the Eye. Separate wards are devoted to fever, venereal diseases, diseases of women, diseases of the eye; also to cases of incidental delirium or insanity. Post-mortem examinations are conducted in the Anatomical Theatre by the Pathologist, who also gives practical instruction in Pathological Anatomy and Histology.

MEDICAL DEPARTMENT.

Consulting Physician—Dr. D. R. Haldane.
Consulting Physician for Diseases of Women—Dr. Alex Keiller.
Professors of Clinical Medicine—Dr. Maclagan, Dr. Alex. R. Simpson, Dr. Grainger Stewart, Dr. Thos. R. Fraser, Dr. W. S. Grenfield,
Extra Physician and Lecturer on the Diseases peculiar to Women—Dr. Angus Macdonald.
Ordinary Physicians and Lecturers on Clinical Medicine—Dr. Claud Muirhead, Dr. David J. Brakenridge, Dr. John Wyllie.
Assistant-Physicians—Dr. J. O. Affleck, Dr. Andrew Smart, Dr. Alexander James.

SURGICAL DEPARTMENT.

Consulting Surgeons—Dr. Dunsmure, Dr. J. D. Gillespie.
Professor of Surgery—
Ordinary Acting Surgeons—Mr. Joseph Bell, Dr. John Duncan, Mr. John Chiene.
Professor of Clinical Surgery—Mr. Annandale.
Ophthalmic Surgeons—Mr. Walker, Dr. D. A. Robertson.
Extra Surgeon for Treatment of Operative Diseases—Dr. Thomas Keith.
Extra Acting Surgeon—Dr. P. H. Watson.
Assistant-Surgeons—Dr. Alex. G. Miller, Dr. P. H. Maclaren, Dr. John Bishop.
Dental Surgeon—Dr. John Smith.
Pathologist—Mr. D. J. Hamilton.

HOSPITAL TICKETS.

Perpetual, in one payment, £12; annual, £3 6s.; half-yearly, £2 4s.; quarterly, £2 2s. Separate payments, amounting to £12 12s., entitle the student to a perpetual ticket.

SCHOOL OF MEDICINE, EDINBURGH.

On October 2 the Practical Anatomy Rooms and Chemical Laboratories will be opened. The courses of lectures will be commenced—winter session, October 24; summer session, May 1.

WINTER SESSION.

Anatomy: Practical Anatomy, Course of Lectures, Course of Demonstrations—Mr. J. Symington and Mr. Charles W. Cathcart.
Chemistry: Lectures, Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.
Practice of Physic—Dr. John Wyllie, Dr. J. O. Affleck, and Dr. Byrom Bramwell.
Pathology and Morbid Anatomy—Dr. Bryan C. Walker and Dr. J. B. Bolst.
Surgery—Mr. Duncan, Dr. A. G. Miller, and Dr. C. W. MacGillivray.
Midwifery and Diseases of Women and Children—Dr. Charles Bell and Dr. Peter Young.
Institutes of Medicine or Practical Physiology—Dr. James and Mr. James Hunter.
Clinical Medicine (Royal Infirmary—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald (Diseases of Women).
Clinical Surgery Royal Infirmary)—Mr. Joseph Bell.
Medical Jurisprudence and Public Health—Dr. Littlejohn.
Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.
Practical Materia Medica, including Practical Pharmacy—Dr. Wm. Craig.
Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.
Diseases of the Ear—Dr. Kirk Dunnanson.
Diseases of the Eye—Dr. John Robertson.
Vaccination (Royal Dispensary—Dr. Husband.
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.
Practical Midwifery—Dr. Angus Macdonald and Dr. Charles Bell.
Practical Midwifery and Clinical Gynæcology—Dr. Peter Young.
Practical Gynæcology—Dr. Halliday Croom and Dr. David Berry Hart.

SUMMER SESSION.

Anatomy: Practical Anatomy, Course of Demonstrations—Mr. J. Symington and Mr. C. W. Cathcart.
Chemistry: Practical Chemistry, Analytical Chemistry—Dr. Stevenson Macadam, Mr. J. Falconer King, Mr. Ivison Macadam, Dr. Drinkwater, and Mr. Buchanan.
Materia Medica and Therapeutics—Dr. Francis W. Moinet and Dr. William Craig.
Practical Materia Medica, including Practical Pharmacy—Dr. W. Craig.
Midwifery and Diseases of Women and Children—Dr. Keiller, Dr. Halliday Croom, Dr. Charles Bell, Dr. Peter Young, and Dr. David Berry Hart.
Medical Jurisprudence and Public Health—Dr. Littlejohn.
Clinical Medicine (Royal Infirmary)—Drs. Claud Muirhead, Brakenridge, and Wyllie, Dr. Angus Macdonald Diseases of Women.
Clinical Surgery Royal Infirmary—Mr. Joseph Bell.
Practical Physiology—Dr. James and Mr. James Hunter.
Practical Pathology—Dr. Bryan C. Waller and Dr. J. B. Bolst.
Natural History, Zoology, and Comparative Anatomy—Dr. Andrew Wilson.
Diseases of the Eye—Dr. Argyll Robertson, Dr. J. Robertson, and Mr. George Berry.
Practical Medicine and Diagnosis—Dr. Byrom Bramwell.
Diseases of the Ear—Dr. Kirk Dunnanson and Dr. P. McBride.
Vaccination—Dr. Husband.
Diseases of Children—Dr. James Andrew and Dr. Jas. Carmichael.
Insanity—Dr. J. Batty Tuke.
Diseases of the Skin—Dr. Allan Jamieson.
Practical Surgery—Mr. Duncan.
Operative Surgery and Surgical Anatomy—Dr. A. G. Miller and Dr. C. W. MacGillivray.
Practical Midwifery—Dr. Keiller and Dr. Charles Bell.
Clinical Gynæcology and Clinical Midwifery—Dr. Halliday Croom.
Practical Midwifery and Clinical Gynæcology—Dr. Peter Young.

The lectures qualify for the University of Edinburgh and the other Universities; the Royal Colleges of Physicians and Surgeons of Edinburgh, London, and Dublin; and the other medical and public Boards.

FEES.

For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh the perpetual fee is £2 4s. Practical

Anatomy (six months' course), £3 3s.; course of demonstrations, £2 2s.; perpetual, £4 4s. Practical Anatomy, with course of demonstrations, £4 4s. Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Practical Materia Medica (including Practical Pharmacy), Diseases of the Ear, Diseases of the Skin, and Diseases of Children, each £2 2s. Vaccination, £1 1s. For summer courses of Clinical Surgery and Clinical Medicine, each £2 2s.; Practical Anatomy (including anatomical demonstrations), Operative Surgery, and Practical Medicine and Medical Diagnosis, each £2 2s.; Insanity, £1 1s.

The minimum cost of the education in this School of Medicine for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the joint examination, is £95, which is payable by yearly instalments during the period of study; whilst the minimum cost for the single qualification of either Physician or Surgeon, including the fee for examination, is £85.

UNIVERSITY OF GLASGOW.—FACULTY OF MEDICINE.

LECTURES AND CLASSES.—WINTER SESSION.

Anatomy, Junior; Anatomy, Senior; Practical Anatomy—Prof. Cleland and Demonstrators.
Chemistry, Chemical Laboratory—Prof. Ferguson.
Clinical Medicine—Prof. McCall Anderson and Prof. Gairdner.
Clinical Surgery—Prof. George Buchanan and Prof. Macleod.
Materia Medica—Prof. Charteris.
Midwifery—Prof. Leishman.
Pathology—The Pathologists of the Infirmaries.
Physiology—Physiological Laboratory: Prof. McKendrick.
Practice of Physic—Prof. Gairdner.
Surgery—Prof Macleod
Zoology—Professor Young.

SUMMER SESSION.

Botany, Botanical Demonstrations—Prof. Bayley Balfour.
Clinical Medicine—Prof. McCall Anderson and Prof. Gairdner.
Clinical Surgery—Prof. Buchanan and Prof. Macleod.
Embryology, and Demonstrations on Anatomy, Elementary Anatomy, Practical Anatomy—Prof. Cleland and Demonstrators.
Forensic Medicine—Prof. Simpson.
Lectures on the Eye—Dr. T. Reid.
Operative Surgery—Prof. Macleod
Pract. of Medicine—Prof. Gairdner.
Practical Chemistry, Organic Chemistry, Chemical Laboratory—Prof. Ferguson.
Practical Materia Medica—Prof. Charteris.
Practical Physiology—Prof McKendrick.
Zoological Laboratory—Professor Young
Insanity—Dr. Yellowlees.

CLASS FEES.

Fee for each course, £3 3s., except lectures on the Eye, £1 1s.; lectures on Insanity, £2 2s.

In addition to the University courses, the following Hospitals and Dispensaries afford ample means for practical instruction in the various departments of Medicine and Surgery:—

WESTERN INFIRMARY.

This Hospital contains 380 beds for medical and surgical patients, with wards for skin diseases and for diseases of women.

MEDICAL AND SURGICAL STAFF.

Physicians.
Prof. W. T. Gairdner
Prof. T. McCall Anderson.
Dr. James Finlayson.
Dr. Gavin P. Toument.

Surgeons.
Prof. George H. B. Macleod.
Prof. George Buchanan.
Dr. Alexander Patterson.
Dr. Hector C. Cameron.

Diseases of Women—Prof. W. Leishman.
Dispensary Physicians—Dr. Joseph Coats, D. C. McVail, M.B., and Dr. S. Gemmell.
Extra Dispensary Physician—Dr. Wm. G. Dun.
Dispensary Surgeons—Dr. J. G. Lyon, D. N. Knox, M.B., and Dr. J. Christie.
Extra Dispensary Surgeon—Dr. J. C. Renton.
Pathologist—Dr. Joseph Coats.
Consulting Physician-Accoucheur—Professor Leishman, M.D.
Outdoor Physicians-Accoucheur—Dr. Robert Kirk, Dr. W. L. Reid, and Dr. Murdoch Cameron.
Dispensary Surgeon for Diseases of the Ear—Thomas Barr, M.D.
Dental Surgeon—Mr. James Rankin Brownlie, L.D.S.
Medical Superintendent—Dr. Alexander.
Lady Superintendent—Miss E. Clyde.
Secretary—Henry Johnston, 11, Bothwell street.

The hour of visit is 9 a.m.

FEES.

The fees for admission to the practice of this Infirmary are—First year, £10 10s.; second year, £10 10s.; afterwards free. The fees for clinical lectures are included in the foregoing.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.

The winter session commences on November 1, and the summer session on May 1. Lectures are delivered on the subjects necessary for qualifying, and extra courses are given on practical subjects now required by examining boards. During summer, lectures on Insanity will be given by Dr. A. Robertson, and the City Asylum under his charge is free to students of this School.

Anatomy—Mr. H. E. Clark.
Chemistry—Dr. John Clark.
Clinical Medicine and Clinical Surgery—The Physicians of Hospital.
Dental Surgery—Dr J. C. Woodburn.
Diseases of the Ear—Dr. Macfie.
Diseases of the Eye—Mr. H. E. Clark.
Forensic Medicine—Mr. Glaister.
Materia Medica—Dr. John Dougall.
Medicine—Dr. J. W. Anderson.
Mental Diseases—Dr. A. Robertson.
Midwifery—Dr. J. Stirton.
Pathology—Mr. D. Newman.
Physiology—Dr. W. J. Fleming.
Practical Physiology and Operative Surgery—Dr. Fleming and Dr. Macewen.
Surgery—Dr. W. Macewen.

The Royal Infirmary contains 532 beds. Of these 214 are for medical and 318 for surgical cases, with special wards for the treatment of venereal disease in males and diseases of women. Diseases of the ear and throat and eye are specially treated at the outdoor department.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Perry.
Dr. Maclaren.
Dr. Wood Smith.
Dr. Charteris.
Dr. Scott Orr.

Physician for Diseases of Women.
Dr. Stirton.

Surgeons.
Dr. Morton.
Dr. Macewen.
Dr. E. Watson.
Dr. Dunlop.
Mr. Clark.

Dispensary Physicians.
Dr. J. W. Anderson.
Dr. Dougall.

Aural Surgeon—Dr. Macfie.

Extra Dispensary Physicians.
Dr. Middleton
Dr. Henderson.
Dr. Campbell Black.
Dr. Brock.

Dispensary Surgeons.
Dr. Lothian.
Dr. Fleming.

Extra Dispensary Surgeons.
Dr. Barlow.
Dr. Jas. A. Adams.
Dr. Muir.
Dr. Shaw.

Vaccinator.
Dr. Tannahill.

Pathologist.
Mr. D. Newman.

Diseases of the Throat
Dr. Eben Watson.

Dental Surgeon—Dr. J. C. Woodburn.

APPOINTMENTS.

There are five Physicians' and five Surgeons' Assistants, who are boarded and lodged in the Hospital at the rate of £25 per annum, and who perform all the duties of House-Physicians and House-Surgeons. These appointments are held for twelve months—six in the medical, and six in the surgical wards—and are open to those students of the Infirmary who have completed their curriculum and passed all their examinations except the last, or who have a qualification in Medicine or Surgery.

Clinical Assistants, Dressers, and Dispensary Clerks are selected from the students without any additional fee; and from the large number of accident cases and cases of acute disease received into the wards, these appointments are numerous, and invaluable to the student. Attendance at the Dispensary for the treatment of out-patients, and admission to the Pathological Museum, are also free.

FEES.

For each course of lectures, first session, £2 2s; second ditto, and perpetual, £1 1s.

The Anatomy Class fees are—first session, £4 4s.; second ditto, £4 4s.; afterwards, £1 11s. 6d. per annum for Practical Anatomy, Practical and Systematic Pathology.

HOSPITAL FEE.

The fee for perpetual attendance on the practice of the Infirmary and on the courses of clinical instruction and lectures is £21.

Prospectuses can be obtained from Dr. Thomas, the Superintendent of the Hospital.

ANDERSON'S COLLEGE, GLASGOW.—FACULTY OF MEDICINE.

The winter session begins on Tuesday, October 31, 1882, and closes on Saturday, March 31, 1883; and the summer session begins on the first Tuesday of May, and closes about the middle of July.

WINTER SESSION.

Chemistry—Professor Dittmar.
Surgery—Professor Dunlop.
Junior Anatomy, Senior Anatomy, Practical Anatomy—Professor A. M. Buchanan and Demonstrator.
Institutes of Medicine (Physiology) and Practical Physiology—Professor Barlow.
Materia Medica—Professor Morton.
Practice of Medicine—Professor Gemmell.
Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.
Dental Mechanics and Metallurgy—Mr. W. S. Woodburn.

SUMMER SESSION.

Botany—Professor Wilson.
Operative Surgery—Prof. Dunlop
Surgical Anatomy, Dissection, Osteology—Prof. A. M. Buchanan and Demonstrator.
Practical Medical Chemistry—Prof. Dittmar.
Midwifery—Prof. A. Wallace.
Public Health—Dr. James Christie.
Medical Jurisprudence—Professor Alex. Lindsay.
Ophthalmic Medicine and Surgery and Clinical Instruction at Ophthalmic Institution—Dr. J. R. Wolfe.
Aural Surgery—Dr. Thomas Barr.
Dental Anatomy—Dr. David Taylor.
Dental Surgery—Mr. J. R. Brownlie.

CLASS FEES.

For each of the above courses of lectures (Anatomy and Dental lectures excepted), first session, £2 2s.; second session, £1 1s.; afterwards free.

Anatomy Class Fees.—First session (including Practical Anatomy), £4 4s.; second session (including Practical Anatomy), £4 4s.; third session, and perpetual, £1 1s.; summer fee (including Practical Anatomy), £1 11s. 6d.; Practical Anatomy only, £1 1s.; Osteology, £1 1s.

Dental Fees.—£2 2s. each course.

Students who have attended classes at other schools, but who desire to pursue their studies at Anderson's College, will be admitted to such classes as they may have attended elsewhere at the reduced fees.

Royal Infirmary.—Fees.—Hospital practice and clinical instruction, first year, £10 10s.; second year, £10 10s.; afterwards free. Six months, £6 6s.; three months, £4 4s. Vaccination fee, £1 1s.

Dental Hospital.—Fee for the two years' hospital practice required by the curriculum for the Dental Licence, £10 10s.

Ophthalmic Institution.—Students of Anderson's College are admitted to the practice of this Institution on paying a matriculation fee of 5s.

The fees for all the lectures and hospital practice required of candidates for the diplomas of Physician and Surgeon amount to £48. This is not payable in one sum, but students simply fee their classes as they take them out.

UNIVERSITY OF ST. ANDREWS.

There is no proper Faculty of Medicine in this University, but it is possible for the student to make an *annus medicus* by attendance on certain of the courses—as Natural History, Professor Nicholson, M.D.; Chemistry, Professor Heddle, M.D.; and Anatomy and Medicine, Professor Pettigrew, M.D.

UNIVERSITY OF ABERDEEN.—FACULTY OF MEDICINE.

LECTURES.—WINTER SESSION.

Anatomy—Professor Struthers.
Chemistry—Professor Brazier.
Institutes of Medicine—Professor W. Stirling.
Materia Medica—Prof. Davidson.
Medical Logic and Medical Jurisprudence—Professor Ogston.
Midwifery and Diseases of Women and Children—Prof. Stephenson.
Practical Anatomy and Demonstrations—Professor Struthers and Assistants.
Pathological Anatomy—Professor Hamilton.
Practice of Medicine—Professor Smith-Shand.
Surgery—Professor Pirrie.
Natural History—Prof. Nicholson.

SUMMER SESSION.

Botany—Professor Trail.
Practical Pharmacy—Prof. Davidson and Assistant.
Practical Midwifery and Gynecology, and Clinical Diseases of Children—Professor Stephenson.
Practical Chemistry—Prof. Brazier.
Practical Anatomy and Demonstrations—Professor Struthers and Assistants.
Practical Physiology—Professor Stirling.
Natural History—Professor Nicholson.

The Anatomical Course in summer includes instruction in Histology and in the use of the microscope; and instruction in Osteology for beginners.

FEES.

Matriculation fee (including all dues) for the winter and summer session, £1; for the summer session alone, 10s.

Practical Ophthalmology, Dr. A. D. Davidson. Practical Toxicology, Dr. F. Ogston, jun. Dental Surgery (in summer), Dr. Williamson.

The regulations relative to the registration of students of Medicine, and the granting of degrees in Medicine and Surgery, may be had of Professor Brazier, Secretary of the Faculty of Medicine.

Full information regarding the classes and degrees in the Faculties of Arts, Law, and Divinity, and in regard to Bursaries and Scholarships, will be found in the University Calendar, published by Messrs. A. King and Co., Upper Kirkgate, Aberdeen, by post 2s. 2d.

ABERDEEN ROYAL INFIRMARY.

The Aberdeen Royal Infirmary contains about 200 beds.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. A. Harvey.
Consulting Surgeon—Professor W. Pirrie.

Physicians.	*Surgeons.*
Dr. J. W. F. Smith-Shand.	Mr. A. Ogston.
Dr. R. Beveridge.	Mr. J. O. Will.
Dr. Angus Fraser.	Mr. R. J. Gordon.
	Mr. John Hill.
Resident Assistant-Physician.	*Resident Assistant-Surgeon.*
Mr. William Sinclair.	Mr. D. R. McKinnon.

Ophthalmic Surgeon—Dr. Alex. D. Davidson.
Dental Surgeon—Dr. W. H. Williamson.
Obstetrician—Dr. P. B. Smith.
Resident Superintendent and Apothecary—Dr. E. W. Robertson.
Curator of Museum—Dr. J. Rodger.
Treasurer and Secretary—Mr. W. Carnie.

SCHOOLS AND HOSPITALS IN IRELAND.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC.

The School of Physic is under the conjoint superintendence of the University authorities and those of the King and Queen's College of Physicians.

LECTURES AND CLASSES.

Anatomy and Chirurgery—Dr. Alexander Macalister, F.R.S.
Botany—Dr. E. Percival Wright.
Chemistry—Dr. J. E. Reynolds, F.R.S.
Comparative Anatomy—Dr. Alexander Macalister, F.R.S.
Institutes of Medicine—Dr. J. M. Purser.
Materia Medica and Pharmacy—Dr. Walter G. Smith.
Medical Jurisprudence—Dr. Robert Travers.
Midwifery—Vacant.
Natural Philosophy—Mr Fitzgerald, F.T.C.D.
Operative Surgery—Dr. Richard C. Butcher.
Practice of Medicine—Vacant.
Surgery—Dr. Edward H. Bennett.
University Anatomist—Dr. Thomas E. Little.

Winter Session, 1882-83.—The winter session commences on October 2. Lectures will commence on November 1. The dissecting-room will be opened on October 2.

SCHOLARSHIPS AND PRIZES.

Two Medical Scholars are elected annually, by the Board of Trinity College, at an examination held at the end of June—subject to conditions stated in the College Calendar. Each scholarship is worth £20 per annum, and is tenable for two years.

A Travelling Prize in Medicine and Surgery is offered in each alternate year, subject to certain conditions; the value of each prize is £100. Particulars may be obtained from the Medical Registrar.

SIR PATRICK DUN'S HOSPITAL.

MEDICAL AND SURGICAL STAFF.

Consulting Physician—Dr. John T. Banks.
Consulting Surgeon—Dr. W. Colles.

Clinical Physicians.	*Clinical Surgeons.*
Dr. John Malet Purser.	Dr. Thomas E. Little.
Dr. W. G. Smith.	Dr. Edward H. Bennett.
	Dr. Alexander Macalister.
Midwifery Physician.	*Lecturer in Operative Surgery.*
Vacant.	Dr. Richard G. Butcher.

Resident Surgeon—Mr. G. C. Kingsbury.

FEES.

Clinical Lectures and Hospital Attendance.—The payment of £12 12s. entitles a student to the benefits of hospital attendance and clinical teaching for the winter and summer sessions, commencing October 2. Fee for winter session only, £8 8s.; fee for summer session only, £5 5s.

Practical Midwifery.—Students desirous of entering for twelve months' instruction in Practical Midwifery are required to pay a maternity fee of £3 3s. each. Students of Trinity College are not liable to any other payment for instruction in Practical Midwifery. Other students are required to pay £3 3s. each to the King's Professor for twelve months' practical instruction, in addition to the Hospital maternity fee. Students who have paid the Hospital maternity fee are entitled to attend the demonstrations in Obstetric Surgery given by the King's Professor. Total fees for College Students, £3 3s.; total fees for Externs, £6 6s.

PRIZES.

Clinical Medals.—The Governors of the Hospital award a Silver Clinical Medal in Medicine to the student who shall pass the best examination on the medical cases treated in the Hospital during the year; and a Silver Clinical Medal in Surgery to the student who shall pass the best examination on the surgical cases treated in the Hospital during the year.

QUEEN'S COLLEGE, BELFAST.

Anatomy and Physiology—Dr. P. Redfern.
Chemistry—Dr. E. A. Letts.
Materia Medica—Dr. J. S. Reid.
Medical Jurisprudence—Dr. J. F. Hodges.
Midwifery—Dr. R. F. Dill.
Natural Philosophy—Dr. J. D. Everett.
Practice of Medicine—Dr. James Cuming.
Practice of Surgery—Dr. A. Gordon.
Zoology and Botany—Dr. R. O. Cunningham.

The demonstrations in Anatomy are delivered by Dr. Anderson. The lectures in Midwifery and in Medical Jurisprudence, and the courses of Botany and Practical Chemistry, and a second course of Experimental Physics, will commence in May.

FEES.

Anatomy and Physiology—First course, £3; each subsequent course, £2. Anatomical Demonstrations and Practical Anatomy—each course, £3. Practical Chemistry, £3. Other medical lectures—first course, £2; each subsequent course, £1.

SCHOLARSHIPS.

Two Medical Scholarships are awarded to the students of each year of the medical course. The examinations commence on October 24.

BELFAST GENERAL HOSPITAL.

FEES.

Clinical Instruction—A winter session, £5 5s. A summer session, £2 2s. Perpetual fee, payable in one sum of £10 10s., or two instalments of £5 5s. each on entering for the first and second years. Hospital fee, 10s. 6d. each winter or summer session.

BELFAST LYING-IN HOSPITAL.

Fee for the session, £2 2s.

QUEEN'S COLLEGE, GALWAY.—FACULTY OF MEDICINE.

LECTURERS.

Anatomy and Physiology, and Practical Anatomy—Dr. J. P. Pye.
Botany and Zoology—Dr. A. G. Melville.
Chemistry—Dr. T. H. Rowney.
Logic and Mental Philosophy—Dr. T. W. Moffett.
Materia Medica—Dr. N. W. Colahan.
Medical Jurisprudence—Dr. R. J. Kinkead.
Midwifery and Diseases of Women and Children—Dr. R. J. Kinkead.
Natural Philosophy—Dr. Joseph Larmor.
Practice of Medicine—Dr. John I. Lynham
Practice of Surgery—Dr. J. V. Browne.

The County Galway Infirmary, Town, and Fever Hospitals are in the immediate vicinity of the Queen's College.

SCHOLARSHIPS AND EXHIBITIONS.

Eight Scholarships of the value of £25 each, and Exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

FEES.

Anatomy and Physiology, £3 first session; afterwards £2. Practical Anatomy, £3; Practical Chemistry, £3; Operative Surgery, £3; other classes, £1 for each course extending over one term only, £2 for each course extending over more than one term, and £1 for each re-attendance on the same. Hospitals, £4 4s.

For further information, application may be made to Professor Townsend, M.A., D.Sc., Registrar.

QUEEN'S COLLEGE, CORK.—FACULTY OF MEDICINE.

LECTURERS.

Anatomy and Physiology—Dr. J. J. Charles
Chemistry and Practical Chemistry—Dr. Maxwell Simpson.
Materia Medica—Dr. M. O'Keefe.
Midwifery—Dr. H. Macnaughton Jones
Natural Philosophy—Prof. John England.
Practical Anatomy—The Professor, assisted by Demonstrators.
Practice of Medicine—Dr. D. C. O'Connor.
Practice of Surgery—Dr. Stephen O'Sullivan.
Zoology and Botany—Professor A. Leith Adams.

SCHOLARSHIPS.

Eight Scholarships are awarded to students in Medicine, if qualified—viz., two scholarships of £25 each to students commencing their first, second, third, and fourth years. Clinical Medicine and Surgery at the North and South Infirmaries, and Clinical Midwifery at the Lying-in Hospital.

THE ADELAIDE MEDICAL AND SURGICAL HOSPITALS, PETER-STREET, DUBLIN.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Henry H. Head.
Dr. James Little

Obstetric Physician.
Dr. R. D. Purefoy.

Assistant-Physician.
Dr. Wallace Beatty.

Surgeons
Mr. John K. Barton.
Mr. Benjamin Wills Richardson.
Mr. Kendal Franks

Ophthalmic Surgeon.
Dr. Rosborough Swanzy.

Dental Surgeon.
Dr. R. Theodore Stack.

Further particulars can be obtained from Mr. Richardson, 22, Ely-place, or any other member of the medical staff.

DR. STEEVENS' HOSPITAL, DUBLIN.

MEDICAL AND SURGICAL STAFF.

Consulting Physicians—Dr. H. Frcke and Dr. Grimshaw.
Consulting Surgeons—Mr. S. G. Wilmot and Mr. G. H. Porter.

Physicians.
Dr. H. J. Tweedy.
Dr. R. A. Hayes.

Obstetric Physician.
Dr. A. Duke.

Surgeon-Dentist.
Mr. J. A. Baker.

Surgeons.
Mr. W. Colles.
Mr. E. Hamilton.
Mr. R. M'Donnell.

Resident Surgeon.
Mr. T. Myles.

FEES.

Hospital Practice, nine months, £12 12s.; ditto, six months, £8 8s.

Further particulars may be learned from the Resident Surgeon at the Hospital; or from Dr. R. A. Hayes, Hon. Sec., 32, Merrion-square South.

ST. VINCENT'S HOSPITAL, DUBLIN.

HOSPITAL STAFF.

Physicians.
Dr. Francis J. B. Quinlan.
Dr. M. F. Cox.

Surgeons.
Mr. Edward D. Mapother.
Mr. M. J. Kehoe.

Gynæcologist—Dr. J. A. Byrne.
Ophthalmic Surgeon—Mr. Redmond.
Surgeon-Dentist—Mr. William J. Doherty.
House-Surgeon—Dr. J. S. Mcardle.
Apothecary—Mr C. T. Boland.

FEES.

Winter and summer session, £12 12s.; separately, £8 8s. and £5 5s.

Further particulars may be learned on application to the Secretary, Dr. Quinlan, 29, Lower Fitzwilliam-street, Dublin, or at the Hospital during the hours of attendance.

JERVIS-STREET HOSPITAL, DUBLIN.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Stephen M. MacSwiney. | Dr. William Martin.

Surgeons.
Dr. J. Stannus Hughes. | Dr. W. Stoker.
Mr. Austin Meldon. | Dr. J. J. Cranny.
Mr. James Edward Kelly. | Dr. Robert MacDonnell.
Mr. J. V. Lentaigne.

This Hospital, which is at present being rebuilt upon an extensive scale, is most central in situation. From its proximity to the quays and principal factories it presents unrivalled opportunities to the students of seeing every form of surgical injury. An extensive Dispensary for out-door patients is attached to the Hospital, at which the students are allowed to perform minor operations, under the guidance of the Surgeon on duty, and are rendered familiar with the details of dispensary practice.

Instruction is given by the Physician and Surgeon on duty on alternate mornings, between nine and eleven o'clock, at the bedside, when the nature, progress, and treatment of each case are explained. Two clinical lectures are delivered each week on the most important cases under treatment, when pathological specimens are exhibited. Surgical instruments and appliances of all kinds are constantly made the subject of special instruction.

Surgical Operations are performed on Tuesday mornings, at ten o'clock, except in cases of emergency, when due notice is given, if possible.

Practical Pharmacy is taught under the superintendence of the Apothecary.

Resident Pupils and Dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special Certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

Certificates of attendance are recognised by all the licensing bodies and examining boards in the United Kingdom.

CARMICHAEL SCHOOL OF MEDICINE, DUBLIN.

LECTURERS.

Surgery—Dr. J. K. Barton and Dr. A. H. Corley.
Ophthalmic Surgery—Dr. C. F. Fitzgerald.
Practical Anatomy—Dr. J. Loftie Stoney.
Systematic Anatomy—Dr. F. Heuston.
Physiology—Mr. J. A. Scott.
Practice of Medicine—Dr. Moore.
Midwifery—Mr. W. B. Jennings and Mr. A. V. Macan.
Chemistry—Dr. C. R. C. Tichborne.
Pathology—Dr. S. Woodhouse.
Zoology and Botany—Dr. W. B. M'Nab
Materia Medica—Dr. G. F. Duffey.
Medical Jurisprudence—Mr. Hugh Auchmuteck.

SCHOLARSHIPS AND PRIZES.

Prizes to the value of £67 on the foundation of the late Richard Carmichael, Esq., the Mayne Scholarship, value £15, and two Carmichael

Scholarships, value £15 and £10 respectively, a second prize of £5 being awarded with each scholarship), are awarded annually.

For further particulars apply to the Registrar at the School.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE, CECILIA-STREET, DUBLIN.

LECTURES AND CLASSES.

Anatomy and Physiology—Dr. Nixon (locum tenens and Dr. Coppinger.
Anatomical Demonstrations—The Professors of Anatomy and Physiology.
Practical Histology—The Professors of Anatomy and Physiology.
Botany—Dr. Sigerson.
Chemistry—Dr. Campbell.
Dissections—Messrs. Redmond, Kehoe, McDonnell, McCullagh, Mcardle, Chance, and O'Carroll.
Materia Medica—Dr. Quinlan.
Medical Jurisprudence—Dr. MacSwiney.
Natural Philosophy—The Very Rev. Dr. Molloy.
Pathology—Dr. Lyons.
Practical Chemistry—Dr. Campbell.
Theory and Practice of Medicine—Dr. Lyons.
Theory and Practice of Midwifery—Dr. Byrne.
Theory and Practice of Surgery—Mr. Hayes.
Ophthalmology—Dr. Coppinger.
Institutes of Medicine—Dr. Nixon.

PRIZES AND EXHIBITIONS.

At the termination of the winter session, public examinations will be held, when prizes in each class will be awarded.

FEES.

For each course £3 3s., excepting Dissections and Practical Chemistry, which are £5 5s. A reduction of one-sixth is made to perpetual pupils paying the entire of their fees in advance, or in two instalments at the commencement of the first and second years of their course. Parents and guardians are recommended to forward all fees directly, by cheque or order, to the Registrar, Professor Campbell, 161, Rathgar-road, or at the School.

Further particulars may be learned from any of the Professors; from the Secretary, Professor Campbell, 161, Rathgar-road; or on application at the School.

CITY OF DUBLIN HOSPITAL, UPPER BAGGOT-STREET.

Consulting Physicians—Dr. James Apjohn and Dr. John T. Banks.
Consulting Surgeon—Mr. Jolliffe T. Tufnell.
Physicians—Dr. Hawtrey Benson and Dr. J. Magee Finny.
Surgeons—Mr. Henry Gray Croly, Mr. William I. Wheeler, and Dr. Henry Fitzgibbon.
Ophthalmic and Aural Surgeon—Dr. Lottie Stoney.
Gynæcologist—Dr. Arthur V. Macan.

Fees.—Nine months' hospital attendance, £12 12s.; six months, £8 8s.; three months, £5 5s.

For further particulars apply to Mr. Wheeler, 27, Lower Fitzwilliam-street.

MATER MISERICORDIÆ HOSPITAL, ECCLES-STREET, DUBLIN.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Christopher J. Nixon.
Dr. Joseph Redmond.
Dr. Michael Boyd.

Assistant-Physician.
Dr. John Murphy.

Consulting Surgeon.
Dr. Francis R. Cruise.

Surgeons.
Mr. Patrick J. Hayes.
Mr. Charles Coppinger.
Mr. Malachy Kilgariff.

Assistant-Surgeon—Mr. Kennedy.
Obstetric Physician—Dr. T. M. Madden.
House-Surgeon—Mr. Edmund Thunder.

This Hospital contains 250 beds, including fifty beds for fever and other contagious diseases.

Certificates of attendance upon this Hospital are recognised by all the licensing bodies in the United Kingdom.

PRIZES.

Two Clinical prizes (the "Leonard Prizes") of £15 each, one medical and one surgical, will be given at the end of the winter session.

Fee for nine months, £12 12s.; six winter-months, £8 8s.; three summer months, £5 5s.

Further particulars may be learned by application to Mr. Hayes, Secretary to the Medical Board, 18, Merrion-square, or to any of the other medical officers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. Arthur Wynne Foot.
Dr. John William Moore.

Surgeons.
Mr. George H. Porter.
Mr. James H. Wharton.
Mr. Philip Crampton Smyly.
Mr. Rawdon Macnamara.
Mr. Lambert H. Ormsby.
Mr. William J. Hepburn.

The ensuing winter session will commence on October 2, and the course of clinical lectures on the first Monday in November.

Clinical lectures, of which four will be delivered weekly, and instructions in Medicine and Surgery, will be given on alternate days.

The Physicians and Surgeons on duty will visit the Hospital at 9 a.m., so as to allow the members of the class to be in attendance at their respective Schools of Medicine at 11 a.m.

The Hospital, which contains 120 beds for the reception of medical and surgical cases, and to which an extensive dispensary (open daily), lending library, and physical laboratory are attached, is within a few minutes' walk of the University, the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, and the Ledwich School of Medicine.

An additional ward has been erected for the reception of children, in which the pupils will have an opportunity of studying that highly important subject—infantile disease.

Certificates of attendance at this Hospital are recognised by all the universities, colleges, and licensing bodies in the United Kingdom.

Prizes will be given at the termination of the winter course to the best answerers in their respective classes.

The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to Mr. W. J. Hepburn, Hon. Sec., 31, Upper Merrion-street, Dublin; or at the Hospital.

MERCER'S HOSPITAL, WILLIAM-STREET, DUBLIN.(a)

STAFF.

Physicians—Dr. T. P. Mason and Dr. George F. Duffey.
Surgeons—Mr. E. S. O'Grady, Mr. Alcock Nixon, and Mr. M. A. Ward.

This Hospital, one of the first founded in Dublin, is situated in a central position, and is in close proximity to the Schools of the Royal College of Surgeons, the Carmichael College of Medicine and Surgery, Catholic University, and the Ledwich.

Fees for the winter and summer session (nine months £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital, or from Dr. James Shaw, Secretary to the medical staff.

ROYAL COLLEGE OF SURGEONS IN IRELAND. SCHOOL OF SURGERY.

LECTURES,—WINTER SESSION.

Anatomy and Physiology—Professor Mapother.
Systematic and Descriptive Anatomy—Professor Thornley Stoker and Professor Cunningham.
Chemistry—Professor Cameron.
Midwifery and Gynæcology—Professor Roe.
Surgery—Prof. J. Stannus Hughes and Professor Stokes.
Practice of Medicine—Professor James Little.

SUMMER SESSION.

Materia Medica—Prof. Macnamara.
Medical Jurisprudence—Prof. Davy.
Botany—Professor Minchin.
Hygiene—Professor Cameron.
Practical Chemistry—Professor Cameron.
Ophthalmic and Aural Surgery—Professor Jacob.

A public course of lectures on Comparative Anatomy will be delivered by the Professor of Anatomy and Physiology, at the commencement of the session, and additional lectures on the same subject will be delivered during the winter.

The dissections are under the direction of the Professor of Anatomy, assisted by the demonstrators, who will daily attend to give instruction and to assist the students.

The fee for each course of lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s., Practical Chemistry, which is £5 5s., and Ophthalmic and Aural Surgery and Hygiene, which are free.

A composition fee of £56 17s. 6d. is taken as payment in full for all lectures and dissections required for the diploma in Surgery.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.

MEDICAL AND SURGICAL STAFF.

Physicians.
Dr. J. T. Banks.
Dr. B. G. M'Dowel.
Dr. S. Gordon.
Dr. R. D. Lyons.

Surgeons.
Mr. William Stokes.
Mr. William Thomson.
Mr. W. Thornley Stoker.
Mr. A. Corley.

Consulting Obstetric Surgeon—Dr. Kidd.
Assistant Physician—Dr. Woodhouse.
Ophthalmic Surgeon—Dr. A. Jacob.

Clinical instruction will commence on October 1. These Hospitals contain 312 beds—110 for surgical cases, 82 for

(a) No return.

medical cases, and 120 for fever and other epidemic diseases. Premiums will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1200 patients, adjoins these Hospitals.

FEES.

For the winter and summer session (nine months), £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident clinical clerks, £21 for the winter session, £15 15s. for the summer session, including certificate of attendance.

DENTAL SURGERY.

REGULATIONS RELATING TO THE DIPLOMA IN DENTAL SURGERY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

EDUCATION.

CANDIDATES are required to produce the following certificates:—

1. Of being twenty-one years of age.

2. Of having been engaged during four years in the acquirement of professional knowledge.

3. Of having attended, at a school or schools recognised by this College, not less than one of each of the following courses of lectures, delivered by lecturers recognised by this College, namely:—Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica.

4. Of having attended a second winter course of lectures on Anatomy, or a course of not less than twenty lectures on the Anatomy of the Head and Neck, delivered by lecturers recognised by this College.

5. Of having performed dissections at a recognised school during not less than nine months.

6. Of having completed a course of chemical manipulation, under the superintendence of a teacher or lecturer recognised by this College.

7. Of having attended, at a recognised hospital or hospitals in the United Kingdom, the practice of Surgery and clinical lectures on Surgery during two winter sessions.

8. Of having attended, at a recognised school, two courses of lectures upon each of the following subjects, viz.:—Dental Anatomy and Physiology (human and comparative), Dental Surgery, Dental Mechanics, and one course of lectures on Metallurgy, by lecturers recognised by this College.

9. Of having been engaged, during a period of not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. In the cases of qualified surgeons, evidence of a period of not less than two instead of three years of such instruction will be sufficient.

10. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of Dental Surgery during the period of two years.

Note.—All candidates who shall commence their professional education on or after July 22, 1878, will, in addition to the certificates enumerated in the foregoing clauses, be required to produce a certificate of having, prior to such commencement, passed a preliminary examination in general knowledge recognised by the General Medical Council, all inquiries with respect to which should be addressed to the Registrar of that Council, 299, Oxford-street, London, W.

Candidates who were in practice as dentists, or who had commenced their education as dentists prior to September, 1859—the date of the Charter—and who are unable to produce the certificates required by the foregoing regulations, shall furnish the Board of Examiners with a certificate of moral and professional character, signed by two members of this College, together with answers to the following inquiries:—Name, age, and professional address. If in practice as a Dentist, the date of the commencement thereof. Whether member or licentiate of any College of Physicians or Surgeons of the United Kingdom; and, if so, of what College. Whether graduate of any University in the United Kingdom; and, if so, of what University; and whether graduate in Arts or Medicine. The date or dates of any such diploma, licence, or degree. Whether member of any learned or scientific society; and, if so, of what. Whether his practice as a Dentist is carried on in connexion with any other business; and, if so, with what business. Whether since July 22, 1876, he has employed advertisements or public notices of any kind in connexion with the practice of his profession. The particulars of professional education, medical or special. The Board of Examiners will determine whether the evidence of character and education produced by a candidate be such as to entitle him to examination.

N.B.—In the case of candidates in practice or educated in Scotland or Ireland, the certificate of moral and professional character may be signed by two Licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland, as the case may be.

EXAMINATION.

The examination is partly written and partly oral. The written examination comprises general Anatomy and Physiology, and general Pathology and Surgery, with especial reference to the practice of the dental profession. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, will only have to answer those questions set by the section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination will be examined only by that section. A candidate whose qualifications shall be found insufficient will be referred back to his studies, and will not be admitted to re-examination within the period of six months, unless the Board shall otherwise determine. Examinations will be held in February, June, and October. The fee for the diploma is £10 10s., over and above any stamp duty.

Note.—A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS.

Every candidate for the Dental Diploma must have attended the general lectures and courses of instruction required, at a university or an established medical school, recognised by the College as qualifying for the diploma in Surgery. The special courses of instruction may have been followed in a recognised dental hospital or school, or by teachers recognised by the College.

Candidates must produce evidence of having attained the age of twenty-one years, and will require to produce a certificate of having passed the preliminary examination in general education required for the ordinary licence in Surgery, or an examination equivalent to this, and recognised by the General Medical Council,—except in the case of candidates who shall have commenced their professional education previous to August 1, 1878.

Candidates will also be required to produce certificates of having been engaged during four years in the acquirement of professional knowledge, and of having been during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a practitioner registered under this Act.

The following lectures and other courses of instruction must have been attended by candidates, and the number of lectures in each of the general courses must correspond with those required for the surgical diploma of the College:—Anatomy, one winter course; Dissection and Demonstrations, nine months, or Dissection, nine months, and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, one winter course; Surgery, one winter course; Medicine, one winter course; Materia Medica, one course of three months; Practical Chemistry and Metallurgy, one course of three months; clinical instruction in Surgery at a recognised hospital, one course of six months, or two courses of three months.

In addition to these, candidates will require to have attended the following special courses of lectures and instruction:—Dental Anatomy and Physiology, Dental Surgery and Pathology, Dental Mechanics, one course of each; and produce evidence of two years' attendance at a dental hospital, or the dental department of a general hospital recognised by the College.

Candidates who are licentiates of this College, or who may be registered medical practitioners, will be required to produce certificates of attendance on the special subjects only, and will be examined in these only for the Dental Diploma.

EXAMINATIONS.

The Dental Examinations shall be both written and oral, and be conducted in the same manner as the ordinary surgical examinations. The examinations shall consist of two separate sittings, and be held subsequent to each period of the ordinary examinations, on such days as the College may appoint. Candidates must apply to the Secretary of the College on or before the Saturday preceding the ordinary examinations, and must then produce all the required certificates of having passed the preliminary examination, and of having attended the lectures and other prescribed courses of instruction.

The fee for the dental diploma shall be ten guineas.

EXAMINATIONS SINE CURRICULO.

Candidates who were in practice before August 1, 1878, or those not in practice but who had commenced their apprenticeship as Dentists before August 1, 1875, and who are unable to furnish the Board of Examiners with the certificates of lectures and hospital attendance required by the foregoing regulations, shall fill in the schedule of application as follows:—

1. Full name, age, and address of candidate.
2. Certificate of moral and professional character, signed by two registered medical practitioners.
3. The date of commencing practice or apprenticeship as a Dentist, and whether, if in practice, such practice has been carried on in conjunction with any other business, and if so, with what business.
4. Whether he has any degree or diploma in Medicine or Surgery, and if so, from what College or University, or other body, and at what time it was obtained.
5. The particulars of professional education.

The President's Council shall, on such information being afforded them, determine whether or not the candidate may be admitted to examination for the Dental Diploma, and such examination shall, with the exception of the preliminary examination, and the exemptions in favour of registered medical practitioners, as before explained, be passed on the same subjects and in the same manner as is required for other candidates, and will confer the same privileges.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL.

HOSPITAL STAFF.

Consulting Physician—Sir Thomas Watson, Bart., M.D.
Consulting Surgeon—Mr. Christopher Heath.
Consulting Dental Surgeons—Mr. S. Cartwright and Mr. John Tomes.

Dental Surgeons.

Mr. D. Hepburn.	Mr. Hutchinson.
Mr. Medwin.	Mr. Moon.
Mr. Gregson.	Mr. A. Hill.

Assistant Dental Surgeons.

Mr. F. Canton.	Mr. R. Woodhouse.
Mr. A. S. Underwood.	Mr. Storer Bennett.
Mr. Truman.	Mr. G. Parkinson.

Chloroformists—Mr. Clover, Mr. Braine, Mr. Bailey, and Mr. T. Bird.
Medical Tutor—Mr. Morton Smale.
Demonstrators—Mr. Claude Rogers and Mr. John Ackery.
House-Surgeon—Mr. W. Hern.
Assistant House-Surgeon—Mr. Cornelius.

The winter session will commence on Monday, October 2.

LECTURES.—WINTER SESSION.

Mechanical Dentistry—Dr. Walker.
Metallurgy—Professor Huntington.

LECTURES.—SUMMER SESSION.

Dental Surgery and Pathology—Mr. Alfred Coleman.
Dental Anatomy and Physiology (Human and Comparative)—Mr. C. S. Tomes.

SCHOLARSHIPS AND PRIZES.

The Saunders Scholarship of £20 per annum, and Prizes, are open for competition.

FEES.

Fee for special lectures required by the curriculum, £15 15s.; fee for two years' hospital practice required by the curriculum, £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a general hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

For further particulars, apply to Mr. T. F. Ken Underwood, Dean.

NATIONAL DENTAL HOSPITAL AND COLLEGE.

The winter session will commence on October 2.

HOSPITAL STAFF.

Dental Surgeons.	*Assistant Dental Surgeons.*
Mr. F. Weiss.	Mr. W. Weiss.
Mr. G. Hammond.	Mr. G. Bradshaw.
Mr. G. A. Williams.	Mr. Alfred Smith.
Mr. A. F. Canton.	Mr. G. D. Curnock.
Mr. Thomas Galdes.	Mr. W. R. Humby.
Mr. Harry Rose.	

LECTURERS.

Dental Anatomy and Physiology—Mr. Thomas Galdes.	Deformities of the Mouth—Mr. Oakley Coles.
Dental Mechanics—Mr. Harry Rose.	Demonstrator of Dental Mechanics—Mr. W. R. Humby.
Dental Surgery and Pathology—Mr. G. Weiss.	Operative Dental Surgery—Dr. Thompson.
Dental Metallurgy—Mr. A. Tribe.	Arts and Literature—Rev. H. R. Belcher, M.A.
Elements of Histology—Mr. Thomas Galdes.	

FEE.

The fee for hospital practice and lectures required by the curriculum is £25 4s.

PHARMACEUTICAL CHEMISTRY.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN: SCHOOL OF PHARMACY.

THE session will commence on October 2, 1882, and extend to July 28, 1883.

Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday mornings at nine o'clock, commencing on Monday, October 2. The course consists of sixty lectures, comprising an exposition of the leading principles and doctrines of the science of Chemistry, and of those branches of allied physical science, the applications of which are involved in the highest qualifications required for the practice of Pharmacy. There will be two of these courses during the session—the course which commences in October and ends in February being repeated, with additions, in the following five months. Each course will be complete in itself, and will include a description of all the most important chemical and Galenical preparations used in medicine, which will be fully illustrated with experiments, diagrams, and specimens. With the view of connecting the instruction provided at the lectures with the practical teaching in the laboratories, the Demonstrator of Practical Chemistry will conduct the after-lecture examinations.

Lectures on Botany and Materia Medica by Professor Bentley, on Thursday, Friday, and Saturday mornings at nine o'clock, commencing Friday, October 6. During the session two courses of lectures will be delivered, each consisting of sixty lectures. The first course, extending from October to the end of February, will comprise Botany and Materia Medica, with especial reference to Structural Botany, and the use of the microscope in distinguishing the various drugs; and the second course, which commences in March and extends to the end of July, will also comprise Botany and Materia Medica, with especial reference to Systematic and Practical Botany. Each course will be complete in itself, although each will have a definite object in view. The portion of the second course on Systematic and Practical Botany, consisting of twenty lectures, commences in May and ends in July. Separate entries may be made for this portion.

The Laboratories for the study of Practical Chemistry will be opened on Monday, October 2, at 10 a.m., under the direction of Professor Attfield, assisted by the Demonstrator of Practical Chemistry, Mr. Wyndham R. Dunstan, F.C.S., and an Assistant-Demonstrator, Mr. F. W. Short. The Laboratories are fitted up with every convenience for the study of the principles of Chemistry by personal experiment. They are specially designed for the study of Pharmacy, but are also well adapted for the acquirement of a knowledge of Chemistry in its application to manufactures, analysis, and original research. There is no general class for simultaneous instruction, each student following an independent course of study always determined by his previous knowledge; pupils can therefore enter for any period at any date. A complete course of instruction, including the higher branches of Quantitative Analysis, occupies ten full months, and dates from the day of entry to that day twelvemonth. The Laboratories are open daily. Vacation months, August and September.

Prospectuses and further particulars may be had of the Professors or their assistants, 17, Bloomsbury-square, W.C.

TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE.

(The letter "i." denotes Single Course; "ii.," Two Courses, Perpetual or Unlimited Attendance.)

	St. Bartholomew's.	Charing Cross.	St. George's.	Guy's.	King's College.	London.	St. Mary's.*	Middlesex.	St. Thomas's.
Anatomy. . .	i. £4 9s. ii. £13 2s. 6d.	i £3 6s.	i £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £9 9s. ii. £12 12s. (inc. Fr An.)	i. £5 5s. ii. £8 8s.	i. £7 17s. 6d.	i. £8 8s. ii. £12 12s.	i. £7 7s. ii. £10 10s.
Demonst. and Dissections .	i. £7 7s.	1st yr. £4 4s. 2nd yr. £3 3s.	i. £3 3s.	i £7 7s.	i. £6 6s.	i. £5 5s. ii. £8 8s.	i. £1 15s.	i. £6 6s. ii. £9 9s.	3 mos. £4 4s. 6 mos. £5 5s. ii. £10 10s.
Theoret. Physiology	i. £9 9s. ii. £13 2s. 6d.	i £6 6s.	i £7 7s. ii. £8 18s. 6d.	i £7 7s.	i. £8 8s. ii. £11 11s.	i £4 4s. ii. £6 6s.	i. £4 4s.	i. £6 6s. ii. £9 9s.	i. £7 7s. ii. £10 10s.
Practical Physiology . .	i. £7 7s.	i. £4 4s.	i. £3 3s.	i. £7 7s.	i. £6 6s. ii. £8 8s.	i. £3 3s. ii. £4 4s.	...	i. £4 4s. ii. £5 5s.	i. £6 6s.
Histology . . .	i. £2 12s. 6d.	...	i. £3 3s.	...	...	i. £3 3s.	i. £4 4s.	...	...
Chemistry . . .	i. £6 16s. 6d. ii. £9 9s.	i. £5 5s.	i £6 6s. ii. £7 17s. 6d.	i £7 7s	i. £8 8s. ii. £11 11s.	i. £7 7s. ii. £10 10s.	i. £6 16s. 6d.	i. £8 8s. ii. £12 12s.	i. £7 7s ii. £10 10s.
Practical Chemistry	i. £3 3s	i. £4 4s.	i £4 4s.	i £7 7s.	i. £6 6s. ii. £8 8s.	i £2 2s., or £5 5s.	i. £4 4s.	i. £4 4s. ii. £6 6s.	i. £6 6s.
Botany . . .	i £4 4s. ii. £5 5s.	i. £3 3s.	i £3 13s. 6d. ii. £4 14s. 6d.	i. £5 5s.	i. £4 4s. ii. £6 6s.	i £3 3s. ii. £4 4s.	i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s.
Com. Anatomy	i. £2 12s. 6d. ii. £4 4s.	i. £3 3s.	£4 4s.	i. £5 5s.	i £4 4s. ii. £6 6s.	i £3 3s. ii. £4 4s.	i. £2 12s. 6d	i. £2 2s. ii. £3 3s.	i. £4 4s. ii. £5 5s.
Medicine. . .	i. £6 16s. 6d. ii. £9 9s.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	i. £5 5s.	i. £6 6s. ii. £8 8s.	i. £7 7s. ii. £10 10s.
Practical Med.	...	i. £2 2s.	i. £4 4s.	...	...	...	...	...	...
Surgery . . .	i. £6 16s. 6d. ii. £9 9s.	i. £6 6s.	i. £7 7s. ii. £8 18s. 6d.	i. £7 7s.	i. £8 8s. ii. £9 9s.	i. £5 5s. ii. £6 6s.	i. £5 5s.	i. £6 6s. ii. £8 8s.	i £7 7s. ii. £10 10s.
Practical Surgery	i. £6 16s. 6d ii. £9 9s.	i. £2 2s.	i. £4 4s.	i. (Op. £7 7s (Prac. £4 4s.	i £3 3s. ii £5 5s.	i £3 3s.	..	i. £4 4s. ii. £6 6s.	i. £6 6s.
Operative Surg.	£3 3s.	...	£2 2s.	...	...	. .	i. £4 4s.	i. £5 5s.	...
Midwifery . .	i. £3 16s. 6d ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d. ii. £5 15s. 6d.	i. £7 7s.	i £5 5s. ii £6 6s.	i. £1 1s. ii. £5 5s.	i. £5 5s	i. £4 4s. ii. £5 5s.	i. £5 5s ii. £6 6s
Pathology . .	i. £2 12s. 6d. ii. £4 4s	i. £3 3s.	i. £3 3s.	i. Dem.) £7 7s Lect. £3 3s.	i. £3 3s. ii. £4 4s.	i £3 3s.	i. £4 4s.	...	i £4 4s. ii. £5 5s.
Path. Anatomy	...	...	...	...	...	...		i. £4 4s. ii. £6 6s.	...
Materia Medica	i. £6 16s 6d. ii. £7 17s. 6d.	i. £3 3s.	i. £4 14s. 6d ii £5 15s. 6d	i. £5 5s.	i. £5 5s. ii. £6 6s.	i £3 3s ii £4 4s.	i. £5 5s	i. £4 4s. ii. £5 5s.	i. £4 4s ii. £5 5s.
Forensic Medicine	i. £4 4s ii. £5 5s	i. £3 3s.	i. £4 14s. 6d ii. £5 15s. 6d	i. £5 5s.	i. £5 5s. ii. £6 6s.	i. £3 3s. ii. £4 4s.	} i. £4 4s.	i. £4 4s. ii. £5 5s.	i. £4 4s. ii. £5 5s
Public Health .	£2 12s. 6d	...	...	£3 3s.	£1 1s.	...		i. £2 2s. ii. £3 3s.	i. £2 2s. ii. £3 3s.
Ophth Surgery	i. £2 12s. 6d. ii. £4 4s	...	...	...	. .	i £2 2s. ii. £3 3s	i. £2 12s. 6d.	i. £1 1s. ii. £3 3s.	i. £2 2s. ii. £3 3s.
Aural Surgery .	...	...	...	...	...	...	i £2 12s. 6d	...	...
Dental Surgery	i. £2 12s. 6d ii. £4 4s.	...	...	...	...	£2 2s.	i. £2 12s. 6d.	i. £2 2s. ii. £3 3s.	i. £2 2s ii. £3 3s
Mental Dis. .	i. £2 12s. 6d. ii. £4 4s.	...	...	£3 3s.	. .	Free to full students.	...	i. £2 2s. ii. £3 3s.	i. £2 2s ii. £3 3s.
Library . . .	1 year, 10s.	£1 1s.	Each winter, 10s. 6d.	...	£1 1s.	£1 1s.	£1 1s.	£1 1s.	...
Hospital Practice	*Medical.* 3 mos. £10 10s. 6 mos. £15 15s 2 yrs £23 12s. 6d Unlimited, £33 1s 6d. *Surgical.* 3 mos. £13 2s 6d 6 mos £19 19s. 12 mos £26 5s. Unlimited, £33 1s. 6d.	*Med. or Surg.* 3 mos. £6 6s. 6 mos. £10 10s. 12 mo. £15 15s. Full period £21 *Med. and Surg* 3 mos. £10 10s 6 mos £15 15s. 12 mos. £21 Full period, £31 10s.	*Med. or Surg.* 6 mos. £10 10s. 2 yrs. £21 Perp. £31 10s. *Med. and Surg.* 6 mos. £21 2 yrs. £42 Perp. £63	*Med. or Surg.* 3 mos. £10 10s. 6 mos. £15 15s 1 yr. £24 3s. Perp. £31 10s. *Med. and Surg.* 3 mos. £15 15s. 6 mos £24 3s. 1 yr. £31 10s. Perp. £47 5s.	*Med. or Surg.* 1 sum £5 5s. 1 win £9 9s 1 yr £12 12s. Perp. £31 10s. *Med. and Surg* 1 sum. £8 8s. 1 win £14 14s 1 yr £18 18s Perp £42 *Dental.* 1 yr. £10 10s 2 yrs. £15 15s	Perp. £52 10s *Medical.* 6 mos. † £10 10 12 ,, ‡ £15 15 Unlim ‖ £26 5 *Surgical.* 6 mos § £10 10 12 ,, ¶ £15 15 Unlim * £25 5 *Obstetric.* 1 year £4 4 Incl Lec. £6 6 *Dental.* Gen fee £10 10	Full period, £46 14s. 6d. *Medical.* 3 mo £4 16s. 6d 6 mo. £9 9s. 12 mo. £15 15s. 18 mo. £19 19s. Perp. £26 5s. *Surgical.* 3 mo £7 17s 6d 6 mo. £11 11s. 12 mo. £26 5s Perp. £38 17s	*Med. or Surg.* Perp. £15 15s. 1 yr £8 8s. 6 mos. £5 5s. *Med. and Surg.* Perp. £25 5s. 1 yr. £12 12s. 6 mos. £7 7s.	*Med. and Surg.* 3 mos £15 6 mos. £26 9 mos £35 12 mos. £40 Perp £55

* No return. † Including three months' Clinical Clerkship. ‡ Including six months' Clinical Clerkship.
§ Including three months' Dresserships. Including six months' Dresserships. ¶ Including nine months' Dresserships.

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TABLE OF FEES FOR HOSPITAL LECTURES AND ATTENDANCE.

(*The letter "i." denotes Single Course; "ii.," Two Courses, Perpetual or Unlimited Attendance.*)

	University College.	Westminster.	Owens Coll., Manchester.	Queen's Coll. Birmingham	Leeds.*	Liverpool.*	Bristol.*	Newcastle.*	Sheffield.*
Anatomy	i. £11 11s. ii. with 3 yrs. Pract.	1st c. £3 6s. subs. c. £22s.	i. £5 5s.	i. £6 6s.	i. £6 6s	2 cs. ea. £5 5s.; 3, £2 12s. 6d.	i. £5 5s. ii. £8 8s.	i. £4 4s.	1 c. £4 4s. 2 c. £2 2s.
Demonst. and Dissections	Anatomy, £16 16s.	3 mos. £4 4s. 6 mos. £8 8s.	6 mos. £3 3s. 3 mos. £2 2s.	i. £5 5s	...	i. £3 3s.	...	...	In above.
Physiology	i. £8 8s. ii. £10 10s.	1st c. £6 6s. subs. c. £2 2s	i. Junior and (Senior ea. £2 12s. 6d.	i. £6 6s	i. £6 6s.	1 & 2 cs. each £5 5s.; 3, £2 12s. 6d.	i. £5 5s ii. £8 8s	i. £4 4s.	1 c. £3 3s. 2 c. £2 2s.
Practical Physiology	i. £8 8s. add. c. £2 2s.	1 c. £6 6s.; sub. c. £3 3s.	i. £5 5s.	...	i. £3 6s.	£5 5s.	i. £3 3s ii. £5 5s	...	i. £3 3s.
Histology	...	...	...	...	...	...	...	...	...
Morbid Hist.	...	...	£2 2s.	...	...	...	...	...	...
Chemistry	i. £7 7s. ii. £4 9s.	1st c. £6 6s. subs. cs. £2 2s.	i. £3 10s. Org. i. £3 10s	i. £5 5s.	i. £4 4s	1 c. £5 5s.; 2 and 3, each £2 12s. 6d.	i. £5 5s. ii. £7 7s.	i. £5 5s.	i. £4 4s.
Practical Chemistry	i. £5 5s. sec. c. £3 3s.	1 c. £4 4s. sub. c. £2 2s.	i. £4 4s	i. £4 4s.	i. £3 3s.	i. £4 4s.	i. £3 3s. ii. £5 5s	...	i. £3 3s.
Botany	i. £3 13s. 9d. ii. £5 5s.	1 c. £3 3s. 2 cs. £4 4s.	i. £2 12s. 6d.	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 and 3, each £2 2s.	i. £3 3s ii. £5 5s	i. £4 4s.	i. £3 3s.
Com. Anatomy	i. £5 5s. ii. £7 7s.	1 c. £2 2s. 2 cs. £3 3s.	i. £2 12s. 6d.	i. £3 3s	i. £1 1s.	1 c. £3 3s.; 2, £2 2s.; 3, £1 1s	i. £4 4s	...	...
Medicine	i. £9 9s. ii. £11 11s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s	i. £5 5s	1 and 2 c. each £5 5s.; 3, £2 12s. 6d.	i. £5 5s ii. £8 8s.	i. £4 4s.	1 c. £4 4s. 2 c. £2 2s.
Practical Med.	...	...	...	...	...	...	...	...	..
Surgery	i. £7 7s. ii. £8 8s.	1st c. £6 6s. subs. c. £2 2s.	i. £5 5s.	i. £6 6s	i. £5 5s	1 c. £5 5s. 2 & 3, ea. £1 1s	i. £5 5s ii. £8 8s	i. £4 4s.	i. £4 4s.
Practical Surgery	i. £6 6s. sec. c. £4 4s.	1st c. £3 3s. subs. c. £2 2s.	i. £4 4s.			1 c. £4 4s.	i. £4 4s ii. £6 6s.	...	i. £3 3s.
Surgical Path.	...	...	£4 4s.	...	...		...	...	..
Operative Surg.	...	...	£4 4s.	...	...	£2 2s.		...	...
Midwifery	i. £6 6s. ii. £7 7s.	1 c. £4 4s. 2 cs. £5 5s.	2 ses. £5 5s.	i. £5 5s	i. £4 4s	1 c. £5 5s.; 2 & 3, ea. £2 12s. 6d	i. £4 4s ii. £6 6s	i. £4 4s.	i. £3 3s.
Pathology	i. £6 6s. ii. £7 7s.	1 c. £3 3s. 2 cs. £4 4s.	i. £4 4s.	...	i. £3 3s	1 c. £3 3s.; 2 and 3, each £1 11s. 6d.	i. £3 3s ii. £4 4s.	i. £4 4s	...
Dis. of Children	...	..	£2 2s.	...	...	...	..	...	...
Materia Medica	i. £6 6s. ii. £7 7s.	1 c. £4 3s. 2 cs. £4 4s.	i. £4 4s.	i. £4 4s.	i. £4 4s	1 c. £4 4s.; 2 & 3, each £2 2s	i. £4 4s ii. £5 5s	i. £4 4s.	i. £3 3s.
Forensic Medicine	i. £4 4s. ii. £5 5s.	1 c. £3 3s. 2 cs. £4 4s.	..	i. £4 4s.	i. £4 4s.	1 c. £4 4s.; 2 & 3, each £2 2s.	i. £3 3s. ii. £5 5s.	i. £4 4s.	i. £3 3s.
Med. Juris. and Hygiene	...	...	i. £4 4s.	..	...	...	...	...	...
Ophth. Surgery	i. £1 1s.	i. £1 1s.	i. £3 3s.	i. £3 3s.	...	i. £1 1s.	...	...	...
Dental Surgery	i. £2 2s.	i. £2 2s.	..	i. £3 3s.	..	i. £3 3s.	..	..	...
Embryology; Lec. & Prac.	...	...	£5 5s.	...	...	...	...	...	...
Mental Dis.	...	i. £1 1s.	...	...	...	...	...	...	..
Public Health	i. £2 2s.	...	...	...	...	...	...	...	...
Library	...	£1 1s.	...	...	£1 1s	i. 10s. 6d. ii. £1 1s.	£1 1s	...	...
Hospital Practice	*Med. and Surg.* Perp. £36 15s. 1 yr. £15 15s. 6 mos £10 10s.	*Med. or Surg.* 3 mos. £8 8s. 6 mos. £10 10s. Each subsequent 6 mos. £5 5s. 3 yrs. £24 3s. *Med. and Surg.* 3 mos. £10 10s. 6 mos. £14 14s. Each subsequent 6 mos. £7 7s. 3 yrs. £36 15s.	*Royal Infirm.* Full per. £42, or 2 instalments, £22 *Medical.* 3 mos. £4 4s. 6 mos. £8 8s. 12 mo. £12 12s Full period, £18 18s *Surgical.* 3 mos. £6 6s. 6 mos. £9 9s 12 mo. £18 18s Full p. £31 10s	*General and Queen's Hospitals.* 4 yrs. £42, or in two equal sums 1 yr. £21 6 mos. £14	*Infirmary.* *Med. or Surg.* 1 win. £7 7s. 1 sum. £8 8s. 12 mo. £12 12s. 18 mo. £15 15s. 4 yrs. £21 Perp. £28 15s.	*Royal Infirm.* Perp. £33 12s. *Medical.* 3 mos. £3 3s. 6 mos. £5 5s. 12 mos. £8 8s *Surgical.* 3 mos. £4 4s. 6 mos. £6 6s. 12 mos. £8 8s.	*Royal Infirm.* *Medical.* 6 mos. £8 1 yr. £15 18 mos. £20 Perp. £30 *Surgical.* 1 yr. £12 12s. 2 yrs. £21 3 yrs. £29 8s *General Hos. Med. or Surg.* 6 mos. £6 12 mos. £10 Perp. £25	*Infirmary.* 3 mos. £4 4s. 6 mos. £5 5s 12 mos. £7 7s. Perp. £17 17s., or 1st year, £7 7s.; 2nd year, £6 6s; 3rd yr. £5 5s	*Gen. Infirm., or Fever Hos.* sum. ses. £3 3s. win. ses. £3 6s.

* No returns have this year been received from these institutions.

We have endeavoured to make this table as complete and correct as possible, but from imperfect returns and deficient information, *perfect accuracy cannot be vouched for.*

Many classes which to outside students are chargeable in heavy sums are gratuitous to the regular students of the various schools.

Totals cannot here be given for the same reason, and because many classes are extra.

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ADVICE TO STUDENTS.

STUDENTS beginning the study of Medicine may be roughly divided into two classes—those who have a serious purpose and do not stand in need of advice; and those who are not a little dependent on the counsel and direction of others, but are in too high spirits to listen to it. There are perhaps, however, some entering pupils who belong to neither of those groups, but occupy an intermediate place: and to these we are emboldened to say something.

An ancient proverb in the "Works and Days" of Hesiod declares that "Well begun is half done," and the occurrence of the same sentiment in several modern languages shows that it accords with universal experience. It is the desire of all who are concerned in the teaching of Medicine that the first year's men should begin well, that they should not be exposed to aimlessness, or indifference, or illness at the outset, and that they should be able to give a good account of themselves at the end of their first session. The arrangements of the schools have gradually tended to reduce the margin of waste at the beginning of the student's career. Subjects for dissection are now stored during the autumn months (under powers granted by a comparatively recent Act), and there need be no occasion for any student to "wait for a part," or, at any rate, to wait longer than the six or eight weeks which he will profitably spend in a preliminary course of Osteology. The teachers of Anatomy are likely enough to have their hands full at the beginning of the winter session, and they will not always be able to give that consideration to the difficulties of individual students, which individual students may require, or may expect. It will be well here to remind students that the College of Surgeons of England now require candidates for the Primary Examination to produce proof of having passed an examination in Elementary Anatomy and Physiology, at their respective schools. Custom in the London schools (always excepting the two Colleges, properly so called) generally gives the Lectureship on Anatomy as a perquisite to one of the hospital surgeons; he is the titular head of the anatomical department, and it is generally understood that he stands first also in the matter of emoluments. He is "played," as they say in cricket, for his lecturing, the useful all-round man on whom the student will mostly rely being the Demonstrator. These anomalies in the anatomical department may puzzle the first year's man for a short time, but he will soon get accustomed to them. If the Demonstrator can find the time, he will probably endeavour to start the first year's men in a course of practical osteology, with or without systematic supervision. The museum of the school, or a corner of the dissecting-room, is sometimes the only place available for such informal classes. But students who do not wish to be idle should continue in making their wants known, and in requiring facilities for the convenient and comfortable study of the bones.

Every student would be well advised to provide himself, for home study, with a set of bones, and with a disarticulated skull. 'Tis round the bones that all our knowledge clings: and he who becomes once thoroughly familiar with the skeleton, will find that the study of the soft parts has become infinitely easier to him. Whoever neglects, or even postpones, his osteological study, runs a great risk of making that most lasting and fatal of all blunders—the blunder of getting hold of the wrong end of the stick. The timely investment of a few guineas in a prepared half-skeleton, and in a set of disarticulated bones of the head, and the due use of the same, are calculated to save the pocket of the student at a later stage, when he may otherwise find it necessary to engage the services of a coach, or to go back upon his studies for a term of months. Best of all, the possession at home of those cleanly and beautiful elements of the frame is calculated to excite the professional instinct of the student, to stimulate him to make good use of the leisure of his first year, and to lead him to observe for himself and to rely upon himself. It is a matter of no small regret that many of the purchaseable osteological specimens are so badly marked, and often so carelessly macerated. There are countries where the human body is held cheap, whether living or dead; it is from such countries that our marketable osteological specimens are believed to come, and, as the supply exists, we may take leave to express our regret that the quality of it is not better.

The student of Anatomy who has become genuinely interested in the bones of the human body is practically safe; he has crossed the *pons asinorum*; and the next steps will be easy to him, as well as pleasant. Anatomy need not further detain us. Chemistry, Physics, Botany, and Comparative Anatomy are all provided for in the liberal arrangements of each of our dozen London schools, as well as in the universities and provincial schools. But the student had better not expect to find the lecturer on those subjects to be in every case well known and esteemed in the scientific world for his profound knowledge of, and contributions to, his particular department. More especially at the smaller schools, certain of the less important lectureships are looked upon as the legitimate property of the junior staff of the hospital, and the student need not be surprised if, here and there, he finds himself listening to a course of lectures that are—well, let us say, perfunctory in conception, inadequate in scope, and dreary in tone. A lecturer, to be stimulating and interesting, should always have a certain amount of that which the Hindoo reformer Ram Dass called "fire in his belly"; but there are twelve lecturers in London (including the School of Medicine for Women) on each subject, and how can anyone expect that they should all of them have fire in their bellies? Not even in so great a moral and intellectual centre as London is the law of natural selection able to provide twelve heaven-born lecturers on any given subject. It will usually be the summer session before the student makes the experience of one of those irksome teachers irksomely lecturing upon an irksome subject—and there is no reason why he should not even escape the experience altogether. Chemistry, which is well provided for in all the schools, falls in the winter; and the other subject of the first winter's attendance—Physiology—is a subject of the first rank.

Now, as regards Physiology, let us earnestly counsel students not to be tempted, by its greater attractiveness as a science, to give an undue prominence to it, and to neglect the technicalities of Anatomy. Anatomy has long been supreme in the first half of the medical curriculum; and now Physiology is up with it, and even threatens to dislodge it from its place. It is only a friend of both sides who will fully understand the difficulties and perplexities of the situation. It may be a praiseworthy thing to make two blades of grass grow where only one grew before; but the advantages are balanced by disadvantages when the soil, so to speak, is the human brain, or more particularly, the brain of the medical student. Even if there were no time-limits to the earlier parts of professional study, there is certainly a limit in brain-retentiveness. There is no doubt that what is gained in one way is lost in another, that what is added on one side has to be taken off on the other. Knowledge, to get it all into the head, ought to be compressible like a bale of wool or a truss of hay, and it is sometimes attempted to carry out the analogy, but the result is what we call "cram." An educational system that takes cram for its basis, flying

in the face of experience, and of all physiological and psychological principles as well, is not creditable to the practical good sense of the country. Nothing but moderation on the part of the zealous physiologists, and a regard for what is practically useful on the part of the anatomists, will enable the schools and examining boards to accommodate themselves to the new circumstances, and at the same time to leave the student with that reasonable and comfortable amount of study and preparation-work which is his privilege as a candidate and as a human creature, just as it was the privilege of the generation before him. If we may venture to speak of a natural way out of the conflict of interests between Anatomy and Physiology, it would be to point to the fundamental and inevitable correlation of structure and function. That which nature has joined together, let not the physiologist put asunder. The division of labour, and the corresponding narrowness of view, which appear to be inevitable in research, are to be resisted to the utmost in teaching; and although we cannot again get professors to profess so many subjects as did Haller or Boerhaave, yet it should never be forgotten that too much specialisation in teaching is more likely to produce prigs than practitioners. The interesting machines which are so well adapted to show the student by what ingenious and complicated ways certain physiological facts were arrived at by great experimenters, are not a care to most of us; to not a few of us, it must suffice to know merely the facts, and to harmonise them with the rest of our knowledge. Practical Microscopic Anatomy, and the elementary Chemistry of the Fluids, must continue to be the larger part of practical Physiology. Whoever occupies the time of his pupils with, let us say, "indol," and neglects to show them the common facts about urine, may be a learned person, but he is singularly wanting in that sense of proportion which is essential to an instructor of youth. Those men are the pharisees of the educational world, and, like their prototypes, they have not the slightest notion that they are not in the van of human progress. Another pernicious sect, closely related to the former, against whom the young student should be cautioned, are those who go about exclaiming that "science is measurement." Science, of course, includes measurement; but, speaking generally, science is brains.

Such are some of the contemporary difficulties and antagonisms that the commencing student will find to be in the air of his class-rooms and laboratories. Many will tell him that the simplest way out of these troubles is "to coach with somebody." Certainly the private tutor is as comprehensive as Haller, and, if he undertake to coach for the Hall as well as for the College, he may even rival the accomplishments of Boerhaave. With every respect for the private tutor, who often does well what the public lecturer does ill, we would advise students to do without that guide, philosopher, and friend, as long as they can. There is no reason why any student should pay twice over for his education, and there is every reason why all students should be taught to rely upon their own powers of mental acquisition under the guidance of their public teachers.

By the time that a student comes to the second half of his curriculum, he will not need to be told what to do. Dresserships and clinical clerkships are by far the best opportunities that the London schools afford. Clinical lectures and pathological demonstrations vary much in quality and quantity at different schools. The maxim for clinical instruction is—"Heaven helps those who help themselves." Lecturers giving systematic courses on Medicine, Surgery, and the like, often appear to be depressed by the thought that their lecturing is a superfluity beside so great a choice of excellent text-books. But students should not encourage that notion; a good lecturer should be more than many text-books, and he is at any rate as valuable as the combined text-books of several languages. We should be glad, therefore, to see the excellent practice of note-taking more commonly resorted to in the London lecture-rooms. It is a stimulus to the teacher, and a help to the taught.

CHANGES IN THE STAFFS OF LONDON HOSPITALS AND SCHOOLS.

At *St. Bartholomew's Hospital* the long-talked-of appointment of a fifth Surgeon has become a reality, and Mr. Morrant Baker has been duly elected to the office. The vacancies thus caused amongst the Assistant-Surgeons have been filled up by the appointment of Mr. Harrison Cripps and Mr. James Shuter. The chief changes in the School are, that Dr. Klein has been appointed a joint-Lecturer on Physiology, and that Mr. Mills gives a course of lectures on Anæsthetics.

At *Charing-cross Hospital*, Dr. Mitchell Bruce has been appointed Physician, in place of the late Dr. Silver. The resignation of Dr. W. B. Houghton, and the death of Dr. Robert Smith, have been followed by the appointment of Dr. Abercrombie and Dr. Montague Lubbock as Assistant-Physicians. The vacancy caused by the promotion of Dr. Bruce has not yet been filled up. On the surgical side, Mr. Stanley Boyd, Assistant-Surgeon, has been selected to fill the post vacated by Mr. Whitehead. Several changes have taken place in the School. New posts of Teachers of Practical Medicine and Surgery have been created, and Dr. Lubbock and Messrs. Bloxam and Morgan have been appointed to fill them. The Lectureship on Physiology, vacant by the death of Dr. Silver, has been entrusted to Dr. Norris Wolfenden. Dr. Abercrombie succeeds Dr. Houghton as Lecturer on Forensic Medicine; and Dr. Colquhoun has been appointed Demonstrator of Morbid Anatomy, in place of the late Dr. Robert Smith.

At *St. George's Hospital*, Dr. Barclay has resigned active service and become Consulting Physician; Dr. Cavafy, in consequence, has ascended to the senior staff; and in his place, Dr. Ewart has been appointed Assistant-Physician. Dr. Cavafy will lecture on Clinical Medicine in place of Dr. Wadham. Mr. Bennett succeeds Mr. Pick as Lecturer on Descriptive and Surgical Anatomy, and is replaced in the teaching of Histology by Mr. Compton. The Chair of Medicine is now filled by Dr. Dickinson alone, Dr. Barclay having given up his share of the teaching. Mr. Pick has succeeded Mr. Holmes as one of the Lecturers on the Principles and Practice of Surgery. Mr. G. Murray holds the Lectureship on Botany—a post which was vacant when our last "Students' Number" went to press. Mr. Dent now alone conducts the class in Practical Surgery.

At *Guy's Hospital*, Mr. Bader has become Consulting Ophthalmic Surgeon, Dr. Mahomed has been appointed Assistant-Physician, Mr. C. J. Symonds Assistant-Surgeon, and Dr. W. A. Brailey Assistant Ophthalmic Surgeon. Dr. Carrington replaces Dr. Mahomed, and Mr. Poland Mr. Symonds, as Medical and Surgical Registrars respectively. Dr. Goodhart has become Curator of the Museum, in place of Dr. Fagge. Dr. Moxon now shares with Dr. Pavy the Chair of Medicine, in the place of Dr. Wilks. Dr. Mahomed has succeeded Dr. Fagge in the Demonstrations of Morbid Anatomy. Mr. Jacobson will hold classes in Surgery. Dr. Mahomed and Mr. Symonds will take part during the summer in the teaching of Clinical Medicine and Surgery. Dr. Brailey now lectures on Comparative Anatomy. Dr. Taylor has succeeded Dr. Moxon in the Chair of Materia Medica, and in consequence has resigned that of Hygiene, which will be filled by Mr. George Turner. Mr. Huggens

lectures on Ophthalmic Surgery in place of Mr. Bader, and Demonstrations in Morbid Histology will be given by Mr. Symonds in place of Mr. Jacobson.

At *King's College Hospital* there are none but minor or nominal changes to report. Dr. George Budd, one of the Consulting Physicians, has died; Drs. Baxter and Curnow are now styled Physicians instead of Assistant-Physicians; and Mr. B. Newmarch has replaced Mr. W. J. Penny as one of the Sambrooke Registrars.

At the *London Hospital* the staff of Surgeons to In-patients has been augmented from four to five, Mr. Waren Tay being the additional Surgeon. The vacancy thus caused in the surgical out-patient staff has been filled by the appointment of Mr. C. W. Mansell-Moullin. Mr. Moullin also replaces Dr. E. B. Aveling as Lecturer on Comparative Anatomy. Mr. Luke, F.R.S., the senior Consulting Surgeon, and Mr. A. Gardiner Brown, the Aural Surgeon, have died. Dr. E. Woakes has been appointed Aural Surgeon, and Mr. T. Mark Hovell Assistant Aural Surgeon. Mr. Rogers has resigned the Lecturership on Toxicology; this part of the course on Forensic Medicine will be given by Dr. Meymott Tidy; but the lecturer on the other part of the subject (which Dr. Tidy formerly taught) has not as yet been appointed. Dr. Woakes will lecture on Aural Surgery.

In the staff of the *Middlesex Hospital* there have been no changes except that Mr. W. Roger Williams has succeeded Mr. Sidney Phillips as one of the Registrars.

St. Thomas's Hospital has been deprived by death of the name of Dr. Peacock in its list of Consulting Physicians. Dr. Gulliver has been appointed to an Assistant-Physiciancy, which was vacant this time last year; he has been replaced as Resident Assistant-Physician and as Registrar by Dr. E. Sheppard. Mr. Wagstaffe has ceased to be Assistant-Surgeon to the Hospital, but his successor has not yet been appointed. Dr. Hadden succeeds Dr. Reid as one of the Demonstrators of Morbid Anatomy. Mr. Clutton lectures on Forensic Medicine in the room of Dr. Payne. Dr. Semon has been appointed Assistant-Physician for Diseases of the Throat.

At *University College Hospital* there have been none but minor changes.

At the *Westminster Hospital*, Dr. Allchin has replaced Mr. Bond in the charge of the Skin Department and in the lectures on that subject. Dr. Radcliffe has ceased to take part in the teaching of Clinical Medicine, and Mr. Holt and Mr. Holthouse in that of Clinical Surgery. Mr. North is associated with Dr. Allchin in the teaching of Physiology.

EDUCATIONAL VACCINATING STATIONS.

In order to provide for the granting of those special certificates of proficiency in vaccination which are required to be part of the medical qualification for entering into contracts for the performance of Public Vaccination, or for acting as deputy to a contractor, the following arrangements are made:—

1. The Vaccinating Stations enumerated in the subjoined list are open, under certain specified conditions, for the purposes of teaching and examination.

2. The Public Vaccinators officiating at these stations are authorised to give the required certificates of proficiency in vaccination to persons whom they have sufficiently instructed therein; and

3. The Public Vaccinators whose names in the subjoined list are printed in Italic letters are also authorised to give such certificates, after satisfactory examination, to persons whom they have not themselves instructed:—

London.—Principal Station—Surrey Chapel, Blackfriars-road: *Dr. Robert Cory*, who attends on Tuesday and Thursday, at 2 p.m. North-west Stations—Marylebone General Dispensary, 77, Welbeck-street: Mr. William A. Sumner, on Tuesday, at 2 p.m.; Hall of the Working-Men's Christian Association, Omega-place, Alpha-road: Mr. William A. Sumner, on Wednesday, at 10 a.m. West Station—9, St. George's-road, Pimlico, S.W.: Mr. Edward Lowe Webb, on Thursday, at 10 a.m. East Station—Eastern Dispensary, Leman-street: Mr. Charles T. Blackman, on Wednesday, at 11 a.m. North Station—Tottenham-court Chapel, Tottenham-court-road: Mr. William Edwin Grindley Pearse, on Monday and Wednesday, at 1 p.m. South-west Station—2, Regent-place, Horsefery-road: Mr. William Edwin Grindley Pearse, on Tuesday, at 2 p.m. Strand Station—14, Russell-street, Covent-garden: Mr. Robert William Dunn, on Thursday, at 11 a.m. South-east Station—Vestry Hall, St. John's, Horsleydown: Mr. John Gittins, on Monday, at 2 p.m. St. Thomas's Hospital: Dr. Robert Cory, on Wednesday, at 11.30 a.m.

Birmingham.—At St. Jude's School-room, Hill-street, near Smallbrook-street, on Monday, at 11 a.m.; the Assembly Rooms, Red Cow Inn, Moseley-hall, opposite Hind-street, on Tuesday, at 11 a.m.; the Wesley-o Methodist Infant School-room, Monument-road, on Wednesday, at 11 a.m.; the Wesleyan School-room, Pedley-street, Wimsongreen-road, on Wednesday, at 2 p.m.; and "The British Workman" Reading Rooms, Sherborne-street, near Grosvenor-street, on Thursday, at 11 a.m.: *Dr. Edmund Robinson*.

Bristol.—The Public Vaccination Station, Peter-street: *Mr. Henry Lawrence*, on Wednesday, at 10 a.m.

Exeter.—The Dispensary, Castle-street: *Mr. William A. Budd*, on Thursday, at 3 p.m.

Leeds.—Hunslet-street: *Mr. Frederick Holmes*, on Tuesday, at 2.30 p.m.

Liverpool.—St. Mary's School-room, Edgehill, West Derby: *Mr. Roger Parker*, on Thursday, at 2.30 p.m.

Manchester.—73, Rochdale-road: *Mr. Ellis Southern Guest*, on Monday, at 2 p.m.

Newcastle-upon-Tyne.—The Central Vaccination Station, 21, Nun-street: *Mr. John Heathorn*, on Wednesday, at 3 p.m.

Sheffield.—The Public Vaccination Station, Townhead-street: *Mr. William Skinner*, on Tuesday, at 3 p.m.

Edinburgh.—The Royal Dispensary: *Dr. William Husband*, on Wednesday and Saturday, at 12. The New Town Dispensary: Dr. James Oliffeck, on Wednesday and Saturday, at 1.

Glasgow.—The Hall of the Faculty of Physicians and Surgeons: *Dr. Hugh Thomson*, on Monday, at 12. The Royal Infirmary: Dr. Robert Dunlop Lumsdaill, on Monday and Thursday, at 12. The Western Infirmary: Dr. David Caldwell M'Vail, on Monday, at 1 p.m.

Candidates for the Certificate by Examination are recommended to communicate some days beforehand with the Examiner at whose station they propose to attend.

DEGREES IN SCIENCE IN THE DEPARTMENT OF PUBLIC HEALTH.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN STATE MEDICINE.

An examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge, beginning on the first Tuesday in October, and ending on the following Friday.

Any person whose name is on the Medical Register of the United Kingdom may present himself for this examination provided he is in his twenty-fourth year. The examination will be in two parts, and will be oral and practical as well as in writing.

Part I. will comprise:—Physics and Chemistry. The principles of Chemistry, and methods of analysis with especial reference to analyses of air and water. Application of the microscope. The laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage, construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general. Statistical methods.

Part II. will comprise:—Laws of the realm relating to Public Health. Origin, propagation, pathology, and prevention of epidemic and infectious diseases. Effects of overcrowding, vitiated air, impure water, and bad or insufficient food. Unhealthy occupations, and the diseases to which they give rise. Water-supply and drainage in reference to health. Nuisances injurious to health. Distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

Candidates may present themselves for either part separately, or for both together, at their option; but the result of the examination in the case of any candidate will not be published until he has passed to the satisfaction of the examiners in both parts. Every candidate will be required to pay a fee of £4 4s. before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

All applications for admission to this examination, or for information respecting it, should be addressed to Professor Liveing, Cambridge.

Candidates who desire to present themselves for examination in October next must send in their applications and transmit the fees on or before September 28.

UNIVERSITY OF LONDON.

EXAMINATION IN SUBJECTS RELATING TO PUBLIC HEALTH.

A special examination shall be held once in every year in subjects relating to Public Health, and shall commence on the second Monday in December.

No candidate shall be admitted to this examination unless he shall have passed the second examination for the degree of Bachelor of Medicine in this University at least one year previously; nor unless he shall have given notice of his intention to the Registrar at least two calendar months before the commencement of the examination.

Candidates shall be examined in the following subjects:—

1. Chemistry and Microscopy, as regards the examination of air, water, and food.

2. Meteorology, as regards general knowledge of meteorological conditions, and the reading and correction of instruments.

3. Geology, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply.

4. Physics and Sanitary Apparatus. The laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation (for sanitary purposes) to the construction of dwellings, and to the principles of warming, ventilation, drainage and water-supply, and to forms of apparatus for these and other sanitary uses. And the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances.

5. Vital Statistics, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life. Present amount of mortality at the various ages, and its causes in different classes and communities. Practical statistics of armies, navies, civil professions, asylums, hospitals, dispensaries, lying-in establishments, prisons, indoor and outdoor paupers, friendly societies, sick clubs, medical and surgical practice, towns.

6. Hygiene, including the causation and prevention of disease, in which branch of examination reference shall be had to such matters as the following:—

Parentage, as influencing the individual expectation of health; temperaments; morbid diatheses; congenital diseases and malformations; effects of close inter-breeding. Special liabilities of the health at particular periods of life; physical regimen of different ages. Earth and climate and changes of season in their bearing on the health of populations; dampness of soil; malaria. Conditions of healthy nourishment: dietaries and dietetic habits; stimulants and narcotics in popular use; dietetic privation, excesses, and errors, as respectively causing disease; drinking-water, and the conditions which make water unfit for drinking; adulterations of food. Conditions of healthy lodgement: ventilation and warming, and the removal of refuse-matters, in their respective relations to health; filth as a cause of disease; sanitary regimen of towns and villages; "nuisances" (as defined by law) with regard to the sanitary bearing and the removal of each; trade processes causing offensive effluvia; common lodging-houses and tenement houses. Conditions of healthy activity: work, over-work, rest, and recreation; occupations of different sorts in relation to the health of persons engaged in them—*e.g.*, factory work in general, occupations which produce irritative lung-diseases, occupations which promote heart-disease, occupations which deal with poisons, etc. Hygiene of particular establishments and particular classes of population: factories and workplaces; schools; workhouses; asylums; hospitals; prisons. Disease as distributed in England: classifications of disease for various purposes of medical inquiry; excesses of particular diseases and injuries at particular places and at particular times. Particular diseases, as regards their intimate nature, causation, and preventability: *e.g.*, enteric fever, cholera, typhus, small-pox, scarlatina, diphtheria, erysipelas, pyæmia, tubercular diseases, rheumatism, ague, cretinism, ophthalmia, porrigo, venereal diseases, scurvy, ergotism, leprosy, insanity. Processes of contagion in different diseases; incubation in each case; particular dangers of infection—at schools, workplaces, etc., and from laundries, dairies, etc. Disinfectants and establishments for disinfection. Quarantine. Hospitals for infectious disease. Conveyance of the sick. Vaccination, existing knowledge as to its protectiveness; revaccination; precautions which vaccination requires; arrangements for public vaccination in town and country; natural cow-pox. Prostitution as regards the public health. Diseases of domestic animals in relation to the health of man: rabies; farcy and glanders; anthrax; parasites, especially trichina and the taeniadæ; aphtha; tubercle; meat and milk of diseased animals. Diseases of the vegetable kingdom, and failures of vegetable crops, in relation to the health of man; famine-diseases. Poisons in manufacture and commercial and domestic use—*e.g.*, arsenic, lead, phosphorus, mercury; poisonous pigments.

7. Sanitary Law, as regards the leading purposes of the following statutes, and the constitution and modes of procedure of the respective authorities, and any existing orders, regulations, or model by-laws of the Local Government Board in sanitary matters. The Public Health Act, 1875. The Vaccination Acts. The Rivers' Pollution Prevention Act, 1876. The Sale of Food and Drugs Act, 1875. The Artisans and Labourers' Dwellings Improvement Act, 1875. The Acts regulating the medical profession. The Acts regulating the practice of pharmacy. The Acts relating to factories and workplaces. The Acts relating to the detention and care of lunatics.

UNIVERSITY OF DURHAM.

STATE MEDICINE.

The Warden and Senate of the University of Durham, in recognition of the importance of the fact that Medical Officers of Health, or those seeking appointments as such, should possess a proof of their special acquirements, have instituted examinations in State Medicine, by which the successful candidates will be entitled to receive a certificate of proficiency in Sanitary Science.

For the certificate of proficiency in Sanitary Science it is required:—1. That the candidate shall be a registered medical practitioner. 2. That the candidate shall have attended one course of lectures on Public Health at the College of Medicine, Newcastle-upon-Tyne, extending over one winter session. 3. That the candidate shall pass an examination on the following subjects:—

1. Physics.—Laws of light, heat, hydro-dynamics, and pneumatics.

2. Chemistry.—As applied to the detection of noxious gases and atmospheric impurities; analysis of air and water.

3. Sanitary Legislation.—Knowledge of the Acts of Parliament in force for the preservation and protection of health.

4. Vital Statistics.—Rates of births, deaths, and marriages; methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom.

5. Meteorology, Climatology, and Geographical Distribution of Diseases in the United Kingdom.

6. Sanitary Medicine, more especially in relation to epidemic, endemic, epizootic, and communicable diseases; diseases attributable to heat, cold, or damp; insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity; preventive measures—vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances.

7. Practical Hygiene, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply and refuse-disposal of dwellings, schools, hospitals, and other buildings of public and private resort; action with respect to nuisances and outbreaks of disease. Other duties of a Medical Officer of Health.

The examination shall be by written papers, and practical and *viva voce* examination, and will commence on October 9, 1882, and on April 23, 1883.

In the practical examination the candidate will be required (1) to report on the condition of some actual locality; (2) to analyse liquids and gases; (3) to explain the construction and use of instruments used in Meteorology; (4) to make microscopic examinations. The fee for the examination will be £5 5s.

A special certificate of proficiency in Sanitary Science may be obtained by Medical Officers of Health of five years' standing who were registered before January 1, 1878, on condition that the candidate is not under thirty years of age, that he passes the examination for the certificate detailed above, and that he writes an essay on some practical sanitary subject, upon which he may also be examined. The fee will be £10 10s.

UNIVERSITY OF EDINBURGH.

In consequence of the great demand which now exists for Medical Officers of Health, and the importance to the public of some means of ascertaining that members of the medical profession have specially studied the subject of Public Health, Science Degrees in the Department of Public Health have been instituted by the University of Edinburgh under the following conditions:—

1. Candidates for graduation in Science in the Department of Public Health must be graduates in Medicine of a British University, or of such foreign or colonial Universities as may be specially recognised by the University Court.

2. He must be matriculated for the year in which he appears for examination or graduation.

3. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations.

4. There are two examinations for the degree of Bachelor of Science in the Department of Public Health. Candidates who have passed the first examination may proceed to the second, at the next period fixed for this, or at any subsequent examination.

5. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher.

6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court.

7. The subjects of the examinations for the degree of Bachelor of Science in the Department of Public Health are as follows:—

FIRST EXAMINATION.

1. *Chemistry.*—Analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents; detection, chemical and microscopical, of adulterations in articles of food and drink, and in drugs: practical examination, including at least two analytical researches.

2. *Physics.*—Hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in reference to warming and ventilation; meteorology, and methods of making meteorological observations; mensuration and mechanical drawing in reference to the plans and sections of public and private buildings, mines, waterworks, and sewers. The candidate will be expected to make figured sketches from models, and to have such a knowledge of mechanical drawing as will enable him fully to understand engineering plans, sections, and elevations.

3. *Sanitary Law.*—Knowledge of the leading sanitary Acts of Parliament.

4. *Vital Statistics.*—Knowledge of statistical methods and data in reference to population, births, marriages, and deaths.

Examination.—First day: Chemistry and Physics. Second day: Sanitary Law and Vital Statistics.

An oral examination and an examination in practical chemistry in the laboratory will take place a few days after the written examination.

SECOND EXAMINATION.

1. *Medicine.*—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including pathological changes.

2. *Practical Sanitation.*—Duties of a Health Officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries; nuisances from manufactories, etc.; bad or insufficient supplies of food; outbreaks of zymotic diseases; quarantine; disinfectants and deodorisers; construction of permanent and temporary hospitals. Every candidate is required before graduation to pay the registration fee (£1) as a member of the General Council of the University, now made compulsory by Act of Parliament.

The written examinations will take place in April, 1883. Candidates who intend to present themselves for examination are required to lodge with the Secretary of the Senatus proof of their being eligible, and to pay the fee on or before March 1.

DOCTOR OF SCIENCE.

A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on presenting a thesis on some subject embraced in the Department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the examiners.

The candidate for the degree of D.Sc. must lodge his thesis with the Dean of the Medical Faculty on or before January 31 in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the various publications quoted, so that due verification may be facilitated.

The fees for the degrees in Science in the Department of Public Health shall be—For the First B.Sc. in Public Health examination, £5 5s.; for the Second B.Sc. in Public Health examination, £5 5s.; for the degree of D.Sc. in Public Health £5 5s.; Registration fee, £1—total, £16 15s.

The following are recommended as books to be studied in preparation for the above examinations:—E. Parkes' "Practical Hygiene"; George Wilson's "Handbook of Hygiene"; Edwd. Smith's "Manual for Public Officers of Health" and "Handbook for Inspectors of Nuisances"; Michael, Corfield, and Wanklyn's "Manual of Public Health," edited by E. Hart: Eassie's "Healthy Houses"; Baldwin Latham's "Sanitary Engineering": Fleeming Jenkin's "Healthy Houses": Henry Law's "Rudiments of Civil Engineering"; George Monro's "The Public Health Scotland) Act"; Alexander Buchan's "Introductory Text-book of Meteorology."

UNIVERSITY OF GLASGOW.

THE QUALIFICATION IN PUBLIC HEALTH.

A special examination will be held once in every year in subjects relating to Public Health, and will commence on the second Tuesday in April. The examination will consist of two divisions, viz.:—First Division, embracing Physics, Chemistry, Meteorology, Geographical Distribution of Diseases. Second Division, embracing State Medicine, Sanitary Law, Vital Statistics. Fee for each division of the examination, £4 4s.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

GENERAL REGULATIONS.

Candidates shall be already on the Medical Register, and be entered there as possessing a qualification in Medicine. Candidates shall not, in the meantime, be required to attend any special courses of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. Candidates shall be subjected to two examinations. Such examinations may be taken simultaneously, or with an interval not exceeding twelve months. The examinations shall be written, oral, and practical. The examinations shall be held in the Physicians' Hall, or elsewhere if found more convenient. Rejected candidates shall not be admitted for re-examination till after the expiry of six months. Fees will not be returned, except in the case mentioned in the paragraph relating to fees given below.

EXAMINATIONS.

I. The First Examination shall embrace—1. Physics: Especially pneumatics, hydrostatics, hydraulics, and engineering in relation to sanitary operations, including a knowledge of architectural and other plans, sections, etc. 2. Chemistry: Especially analysis of air, water, food, including the biology of putrefaction and allied processes. 3. Meteorology: Including climate, topographical and seasonal influences in relation to health and disease.

II. The Second Examination shall embrace—1. Epidemiology and Endemiology: Including the corresponding departments in the diseases of animals and plants; contagious diseases; diseases of periods of life, professions, trades, seasons, and climates. 2. Practical Hygiene: Duties of a health officer; food; water-supply; sewerage and drainage; construction of hospitals, public buildings, dwellings; manufactories; cemeteries; nuisances. 3. Sanitary Law and Vital Statistics.

Meetings for both examinations shall be held annually in April and October. The first examination shall be held on the second Tuesday of the month, and shall occupy two days; the second examination on the immediately succeeding Thursday of the same week, and shall occupy two days. Candidates may enter for both examinations in the same week, or for one only. The examinations must be passed in their order, first and second. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate remitted at his second examination will be allowed to come up again after a further period of six months; but if he then fail to pass, he will be required again to undergo the first as well as the second examination before obtaining the certificate.

FEES.

No one shall be recognised as a candidate till he has paid the fee for the first examination. The fees for examinations must be paid at least a week before the day of examination. The whole charges by the College for the certificate amount to £10 10s. The fee for the first examination is £3 3s.; the fee for the second examination is £3 3s.; the fee payable before receiving the certificate is £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has offered himself for both examinations fail to pass the first, he shall not be allowed to present himself for the second, and his fee for the second shall be returned to him.

SPECIAL INSTRUCTION.

SCHOOLS AND OTHER PLACES OF GENERAL AND SPECIAL INSTRUCTION.

BESIDES the regular Schools with their various departments, there are many other institutions—devoted, some of them, to special purposes—where students and practitioners may acquire a sound knowledge of various subjects which hardly enter into the ordinary curriculum. We have already indicated that in the plan of studies the student may avail himself of a year at the beginning or at the end for such purposes. If at the beginning, we could not do better than advise him to take a session at the Royal School of Mines (now the Natural Science Department at South Kensington), studying especially Chemistry and Natural History, the value of which we have already inculcated. If he takes the year at the end, then such special studies as Eye Diseases, Skin Diseases, Lunacy, Diseases of Women and Children, may well engage his attention. These may, as a rule, be studied in connexion with his school: or, if a wider field is desired, in some one or other of the following institutions:—

Preliminary.

ROYAL SCHOOL OF MINES

Department of Science and Art.

During the thirty-second session, 1882-83, which will commence on October 2, the following courses of lectures and practical demonstrations will be given:—

Applied Mechanics—Mr. Goodeve.
Chemistry—Dr. E. Frankland.
Geology—Mr. John W. Judd.
Mining—Mr. W. W. Smyth.
Metallurgy—Mr. W. Chandler Roberts.
Biology—Professor T. H. Huxley.
Physics—Dr. Frederick Guthrie.

The lecture fees for students desirous of becoming Associates are £10 in one sum, on entrance, or two annual payments of £20, exclusive of the laboratories. Tickets to separate courses of lectures are issued at from £4 each. Officers in the Queen's service, her Majesty's Consuls, Acting Mining Agents and Managers, may obtain tickets at reduced prices. Science teachers are also admitted to the lectures at reduced fees. For a prospectus and information apply to the Secretary, Natural Science Department, South Kensington, S.W.

SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY,

325, Kennington-road, and Central Public Laboratory,
Kennington-cross, S.E.—Director—Dr. Miter.

FOURTEENTH SESSION—1882-83.

Daily lectures in Classics, Chemistry, Physics, Botany, Materia Medica and Pharmacy. Laboratory open for Practical Chemistry from ten till five. Special instruction for Medical Officers of Health in Water, Air, Gas, and Food Analysis. For fees, etc., apply to W. Baxter, Secretary, Laboratory, Kennington-cross, S.E.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

30, Henrietta-street, Brunswick-square, W.C.

LECTURERS.

Anatomy—Mr. A. Leahy, Charing-cross Hospital, and Mr. Stanley Boyd (elect), Charing-cross Hospital.
Physiology—Mr. Schäfer, F.R.S., University College.
Chemistry—Mr. Heaton, Charing-cross Hospital.
Botany—Dr. F. H. Stokoe.
Materia Medica—Dr. Samuel West.
Practice of Medicine—Dr. H. Donkin, Westminster Hospital, and Mrs. Garrett-Anderson, M.D.
Midwifery and Diseases of Women—Dr. Ford Anderson and Dr. Louisa Atkins.
Forensic Medicine—Dr. Dupré, F.R.S., Westminster Hospital, and Mr. Bond, Westminster Hospital.
Clinical Medicine—Dr. Cockle, Royal Free Hospital, and Dr. Buchanan Baxter, Royal Free Hospital.
Hygiene—Drs. Sophia Jex Blake and Edith Pechey.
Surgery—Mr. A. T. Norton, St. Mary's Hospital.
Clinical Surgery—Mr. F. J. Gant, Royal Free Hospital, and Mr. W. Rose, Royal Free Hospital.
Ophthalmic Surgery—Mr. Critchett, Middlesex Hospital, and Mr. Jas. Adams, Royal Ophthalmic Hospital.
Minor Surgery—Mr. James Souter, M.B., Royal Free Hospital.
Tutorial Class for Auscultation and Percussion—Dr. Samuel West, Royal Free Hospital.
Pathology—Dr. Allen Sturge, Royal Free Hospital.
Mental Pathology—Dr. Sankey, University College.
Comparative Anatomy—Dr. Marie, Middlesex Hospital.

Dean of the School—Mr. A. T. Norton, St. Mary's Hospital.

The Winter Session of 1882-83 will commence on October 2, and will comprise classes in Anatomy, Physiology, Chemistry, Practice of Medicine, Surgery, and Practical Anatomy with Demonstrations. Clinical instruction will be given at the Royal Free Hospital, and will include lectures on Clinical Medicine, Clinical Surgery, Hospital Attendance, and Pathological Demonstrations. Separate cliniques are held for the treatment of the Diseases of Women under Dr. W. Hayes, and for Ophthalmic Surgery under Mr. Grosvenor Mackinlay. Dressers, Clinical Clerks, and a Pathological Registrar will be selected from among the senior students. An Entrance Scholarship, value £30, is competed for annually.

Fees for ordinary curriculum of non-clinical lectures £20, or £40 the first year, £30 the second, and £15 the third. Fees for clinical instruction and lectures for four years £45, or £20 the first year, £15 the second year, and £15 the third, the fourth being free. Apply for information to the Dean, or to the Hon. Sec., Mrs. Thorne.

THE MASON SCIENCE COLLEGE, BIRMINGHAM.

This College has been appointed a local centre for the following examinations required by the *University of London*: viz., for the Matriculation, the Intermediate Examinations in Arts and Science, and the Preliminary Scientific (M.B.).

SCIENCE DEPARTMENT.

Pure and Applied Mathematics.—The subjects taught in the several classes will meet the requirements of the Matriculation, the Intermediate Pass Examination in Science, and the B.Sc. (Branch I.) Examination of the University of London.

Also in *Physics, Chemistry, Organic Chemistry, Zoology*, and *Comparative Anatomy*, candidates for the Intermediate Examination in Science, Preliminary Scientific (M.B.), B.Sc., and the Intermediate Examination in Medicine of the University of London will be able to obtain the instruction necessary. Courses of lectures are given on *Human Physiology*, including *Microscopic Anatomy*. *Practical Physiology* is taught in the summer term. Each student tests for the most important constituents of the blood, bile, urine, milk, etc.; and is taught the practical use of some of the more important physiological apparatus, such as the cardiograph, sphygmograph, ophthalmoscope, and laryngoscope.

All information as to classes, fees, etc., can be obtained by application to the Secretary at the College.

LONDON.

General Hospitals.

GREAT NORTHERN HOSPITAL,

Caledonian-road.

Consulting Surgeon—Mr. E. Le Gros Clark, F.R.S.
Physicians—Dr. Chidmeeky, Dr. R. Bridges, Dr. Cooke, Dr. Durnet, Dr. Clifford Beale.
Obstetric Physician—Dr. Gustavus C. P. Murray.
Assistant Obstetric Physician—Dr. Fancourt Barnes.
Diseases of the Eye—Mr. W. H. Lyell.
Surgeons—Mr. Gay, Mr. W. Adams, Mr. W. Spencer Watson, Mr. J. Macready, Mr. C. B. Lockwood.
Aural Surgeon—Mr. A. E. Cumberbatch.
Dental Surgeon—Mr. E. Keen.
Chief Assistant—Mr. G. Eastes. House-surgeon—Mr. J. Nicll Cooke.
Junior Resident Medical Officer—Mr. W. Brewster.
Dispenser—Mr. J. W. Burgess.

SEAMEN'S HOSPITAL late *Dreadnought*, GREENWICH, S.E.

Consulting Physician—Dr. Robert Barnes, F.R.C.P.
Visiting Physicians—Drs. J. Jan Carnow, F.R.C.P., and H. E. Carrington.
Visiting Surgeon—Mr. G. Robertson Turner, F.R.C.S.
Medical Officer, Well-street Dispensary—Mr. E. Muirhead Little.
Principal Medical Officer—Mr. W. Johnson Smith, F.R.C.S.
Secretary—Mr. W. Thomas Evans.

Special Hospitals.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,

Victoria-park.

Honorary Consulting Physician—Sir J. Risdon Bennett, M.D., F.R.S.
Consulting Physicians—Dr. E. L. Birkett, Dr. J. Andrew, and Dr. J. C. Thorowgood.
Consulting Surgeon—Mr. John Eric Erichsen.
Physicians—Dr. A. B. Shepherd, Dr. Eustace Smith, Dr. J. B. Berkart, and Dr. J. M. Fothergill.
Assistant-Physicians—Dr. Samuel West, Dr. G. A. Heron, Dr. V. D. Harris, Dr. J. A. Ormerod, Dr. E. Cresswell Baxle, Dr. Jas. Anderson, and Dr. B. Fenwick.
Resident Medical Officer—Dr. Laurence Humphry.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

(Number of beds, 192; and 137 in new Extension Building.)

Consulting Physicians—Dr. C. J. B. Williams, Dr. W. H. Walshe, Dr. Richard Quain, and Dr. James E. Pollock.
Consulting Surgeon—Prof. John Marshall.
Physicians—Dr. E. Symes Thompson, Dr. C. Theodore Williams, Dr. R. Douglas Powell, Dr. John Tatham, Dr. Reginald E. Thompson, and Dr. Frederick T. Roberts.
Assistant-Physicians—Dr. T. H. Green, Dr. J. M. Bruce, Dr. J. Kingston Fowler, Dr. Percy Kidd, Dr. Cecil Y. Biss, and Dr. Isambard Owen.
Pathologist—Vacant.
Dental Surgeon—Mr. Charles J. Noble.
Resident Medical Officer—Mr. Frederick J. Hicks, M.B., M.A., F.C.S.
Honorary Secretary—Sir Paul de Rosa, Bart.
Secretary—Mr. Henry Dobbin.

The clinical practice of this Hospital is open to students of Medicine and practitioners. Fee for three months, £2 2s.; six months, £3 3s.; perpetual, £10 10s.

A course of clinical instruction in Auscultation will be given by the medical officers.

Certificates of attendance on the medical practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and by the Army, Navy, and Indian Boards.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC,

Queen-square, Bloomsbury.

Physicians—Drs. Ramskill, Radcliffe, Hughlings-Jackson, Buzzard.
Physicians for Out-patients—Drs. Charlton Bastian, Gowers, Ferrier.
Assistant-Physicians—Drs. Ormerod and Horrocks.
Surgeon—W. Adams, F.R.C.S.
Resident Medical Officer and Registrar—C. F. Coxwell, M.B. Cantab.

THE HOSPITAL FOR SICK CHILDREN,

43 and 49, Great Ormond-street, W.C., and Cromwell House, Highgate.

Physicians—Dr. Dickinson, Dr. Gee, and Dr. W. B. Cheadle.
Assistant-Physicians — Dr. R. J. Lee, Dr. O. Sturges, Dr. Thomas Barlow, Dr. D. B. Lees, Dr. Lubbock.
Surgeons—Mr Thomas Smith and Mr. Howard Marsh.
Assistant-Surgeons — Mr. Edmund Owen and Mr. J. H. Morgan.
Ophthalmic Surgeon—Mr. Nettleship.
Surgeon-Dentist—Mr. Alex. Cartwright.
Secretary—Samuel Whitford.

120 beds. In-patients, 1881, 1050. Out-patients attending, 13,180. The practice of the Hospital, in both in- and out-patient departments, is open at nine every morning.

BELGRAVE HOSPITAL FOR CHILDREN.

79, Glouce-ter-street, Warwick-square, S.W.

HONORARY MEDICAL STAFF.

Physicians—Dr. W. Hope and Dr. W. Ewart.
Surgeons—Mr. W. Bennett and Mr. C. Dent.
House-Surgeon—Mr. A. Grayling.

EVELINA HOSPITAL FOR SICK CHILDREN,

Southwark-bridge-road.

Consulting Physician—Dr W. S. Playfair.
Consulting Surgeon—Mr. Prescott C. Hewett.

Physicians — Dr. E. Buchanan Baxter and Dr Fredk. Taylor.
Physicians to Out-Patients — Dr. N. I. C. Tirard and Dr. Jas. Goodhart.
Surgeons — Mr. W. Morrant Baker and Mr. H. G. Howse.
Dental Surgeon—Mr. Isidore Lyons.
Surgeons to Out-Patients—Mr R. Clement Lucas and Charters Jas. Symonds.
Ophthalmic Surgeon—Dr. W. A. Brailey.
House-Surgeon — Dr. W H. C. Newnham.
Secretary—Mr. T. Sands Chapman

VICTORIA HOSPITAL FOR CHILDREN,

Queen's-road, Chelsea; and Churchfields, Margate.

Physicians—Dr. Julian Evans and Dr. T. Ridge Jones.
Physicians to Out-Patients — Dr. Grigg, Dr. A. Venn, Dr. T. Colcott Fox, Dr. F. Dawney Drewett.
Surgeons to Out-Patients—Mr. F. Churchill, Mr. Walter Pye.
Surgeon—Mr. George Cowell.
Dental-Surgeon—Mr. Francis Fox.
Assistant Dental Surgeon — Mr. Francis Fox.
Registrar—Dr. George Weldon.
House-Surgeon—Dr. W. Arbuthnot Lane.

Secretary—Captain Blount, R.N.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN,

Shadwell, E.

Consulting Physicians—Dr. Barnes and Dr. Andrew Clark.
Physicians—Dr. Eustace Smith and Dr. Horatio B. Donkin.
Assistant-Physicians—Dr. Warner and Dr. Crocker.
Administrator of Anæsthetics—Mr. Thomas Bird.
Consulting Surgeon—Mr. B. Shillitoe.
Consulting Ophthalmic Surgeon—Mr George Cowell.
Surgeons—Mr. A. Cæsar and Mr. H. A. Reeves.
Assistant-Surgeon — Mr. R. W. Parker.
House-Surgeon — Mr. J. Scott Battams.

Secretary—Ashton Warner.

The Hospital contains 92 beds, besides 10 beds in an Infirmary for nurses and children who require isolation. The Hospital is open free to patients.

THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN,

Waterloo-bridge-road.

Consulting Physicians—Dr. Samuel Wilks and Dr. John Williams.
Consulting Surgeons—Mr. J. Cooper Forster and Mr. Edwin Canton.

Physicians—Dr. William Park, Dr. George Roper, and Dr. Edwin Bidwell.
Surgeon-Dentist—Mr. Walter Whitehouse.
Surgeon—Mr. W. H. A. Jacobson.
Assistant-Surgeon—Mr. E. Overman Day.
Resident Medical Officer—Mr. J. F Briscoe.

Secretary—Mr. R. G. Kestin.

THE HOSPITAL FOR WOMEN,

Soho-square, W.

Physicians—Dr. Protheroe Smith, Dr. Heywood Smith, Dr. Carter.
Surgeon—Mr. Henry A. Reeves.
Assistant-Physicians—Dr. R. T. Smith, Dr. Holland, Dr. Mansell-Moullin.
Surgeon-Dentist—Mr. Frederic Canton.
Administrator of Anæsthetics—Mr. Thomas Bird.
Pathologist and Curator of Museum—Dr. Bedford Fenwick.
Secretary—David Cannon.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL,(a)

191, Marylebone-road, London, N.W.

Physicians to the In-patients—Dr. Wm Hope and Dr. W. C. Grigg.
Physician to the Out-patients—Dr. Percy Boulton.
House-Physician—Mr. Norman Dalton.

BRITISH LYING-IN HOSPITAL,

Endell-street, St. Giles's, W.C.

Consulting Physician—Dr. Priestley.
Consulting Surgeon—T. Spencer Wells, F.R.C.S.
Physicians—Dr. Heywood Smith, Dr. Fancourt Barnes, and Dr. J. Phillips.
Matron—Miss Freeman.
Secretary—FitzRoy Gardner, Esq.

(a) No return.

LONDON FEVER HOSPITAL, ISLINGTON.

Consulting Physicians—Dr. A. Tweedie, Dr. Broadbent, and Dr. G. Buchanan.
Physicians—Dr. Cayley and Dr F. A. Mahomed.
Assistant-Physician—Dr. George C. Henderson.
Consulting Surgeon—Mr. W. S. Savory.
Surgeon—Mr. A. J. Pepper.
Resident Medical Officer—Dr. W. Tonge Smith.
Secretary—Mr. E. Burn Callander.

This Hospital is recognised by the Royal University of Ireland, and certificates of attendance given by the Resident Medical Officers are accepted. These certificates are also accepted by the King and Queen's College of Physicians, Ireland.

ROYAL LONDON OPHTHALMIC HOSPITAL,

Blomfield-street, Moorfields, E.C.

Consulting Surgeons—Mr. J. Dixon, Mr. G. Critchett, Mr. W. Bowman, and Mr. J. Hutchinson.
Surgeons—Messrs. Wordsworth, Streatfeild, J. W. Hulke, G. Lawson, J. Couper, Waren Tay, J. Adams, J. Tweedy, and R. Lysll.
House-Surgeons—Messrs. W. Jennings Milles and M. A. Symons.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL,

King William-street, Charing-cross.

The Hospital contains thirteen wards with fifty beds, and the patients (10,000 new cases annually) are seen daily at 1 p.m., and operations performed at 2 p.m. The following are the days of attendance of the Surgical Staff:—Monday and Friday, Mr. Power; Monday and Thursday, Mr. Macnamara; Tuesday and Saturday, Mr. Rouse; Wednesday and Saturday, Mr. Cowell. Assistant-Surgeons: Monday, Wednesday, and Friday, Mr. Henry Juler; Tuesday and Thursday, Mr. Albert Leahy.

The practice of the Hospital is open to students. Fees—for six months, £3 3s.; perpetual, £5 5s.

Secretary—Mr. Geo. C. Farrant.

CENTRAL LONDON THROAT AND EAR HOSPITAL,

Gray's-inn-road, W.C.

Consulting Surgeon—Mr. Sydney Jones, F.R.C.S.
Surgeons—Mr. Lennox Browne, Dr. Llewellyn Thomas, Mr. G. R. Steil.
Assistant-Surgeons—Mr. Francis G. Hamilton, Dr. Arthur Orwin.
Defects of Speech—Mr. William Van Praagh.
Dental Surgeon—Mr. George Wallis.
Chloroformist—Dr. James Murray.
Registrar and Pathologist—Dr. J. Dundas Grant.
Secretary—Mr. Richard Kershaw.

HOSPITAL FOR DISEASES OF THE THROAT AND CHEST,

Golden-square, W.

Outpost—7, Newington-butts, S.E.

Physicians—Dr. Morell-Mackenzie, Dr Semple, Dr. Prosser James, Dr. W. MacNeill Whistler, and Mr. F. Semon.
Surgeons—Mr. Edward Woakes and Mr. Mark Hovell.
Dental Surgeon—Mr. Oakley Coles.
Resident Medical Officer—Mr. Coleman Jewell.
Secretary—Lieut.-Col. J. Urquhart Mosse.

HOSPITAL FOR DISEASES OF THE SKIN,(a)

52, Stamford-street, Blackfriars, S.E.

Surgeons—Mr. Jonathan Hutchinson and Mr. Waren Tay.
Assistant Surgeons—Mr. Wyndham Cottle and Mr. E. Buchanan Baxter.
Secretary—F. G. Reynolds.

BRITISH HOSPITAL FOR DISEASES OF THE SKIN,

West Branch, Great Marlborough-street, W.; East Branch, 18A, Finsbury-square, E.C.; and South Branch, Newington-butts, S.E.

Surgeons—Mr. Balmanno Squire and Mr. George Gaskoin.

Secretary—Mr. George H. Plowright.

ST. PETER'S HOSPITAL FOR STONE AND GENITO-URINARY DISEASES,

54, Berners-street, W.

Surgeons—Mr. Walter J. Coulson and Mr. W. F. Teevan.
Assistant-Surgeons—Mr. F. R. Heycock and Mr. F. S. Edwards.
House-Surgeon—Mr. H. J. Hill.
Secretary—Mr. Walter E. Scott.

ST. LUKE'S HOSPITAL FOR LUNATICS,(a)

Old-street, E.C.

Physicians—Dr. Henry Monro and Dr. William Wood.
Surgeon—Mr. Alfred Willett.
Resident Medical Superintendent—Dr. George Mickley.

PROVINCIAL.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

Medical Officers—Dr. Millington, Dr. Totherick, Mr. Vincent Jackson, Mr. J. O'B. Keogh, Mr. F. E. Manby.
Physician to Out-Patients—Dr. H. Malet.

Fees for hospital practice—For six months, £6 6s; for one year, £10 10s.; perpetual, £22 1s. Some members of the honorary staff receive resident pupils.

(a) No return.

NORFOLK AND NORWICH HOSPITAL.
Physicians—Dr. Eade, Dr. Bateman, and Dr. Taylor.
Surgeons—Mr. Cadge, Mr. Crosse, and Mr. Williams.
Assistant-Surgeons—Dr. Beverley and Mr. Robinson.
Resident Medical Officer—Mr. D. D. Day.

GENERAL INFIRMARY, NORTHAMPTON.
Physician—Dr. Buszard.
Surgeons—Mr. Kirby Smith and Mr. G. H. Percival.
House-Surgeon—Mr. H. H. Tidswell.
Assistant House-Surgeon—Mr. J. Oswald Lane.

THE ROYAL DISPENSARY, EDINBURGH
Consulting Physician-Accoucheurs—Dr. Keiller and Dr. Bell.
Medical Officers—Dr. W. Husband, Dr. James Andrew, Dr. D. Wilson, Dr. F. W. Moinet, Dr. A. J. Sinclair, Dr. Cotterill, Dr. Waller, Dr. Jamieson, Dr. Spence, Dr. Peter Young, Dr. Dyce Fraser, and Dr. Black.
Midwifery Department—Dr. Andrew and Dr. Young
Vaccination—Dr. Husband.
Apothecary—Mr. J. Nicol.
Secretary to Medical Officers—Dr. Andrew.

ROYAL HOSPITAL FOR SICK CHILDREN, MEADOWSIDE HOUSE EDINBURGH (a)
Consulting Physicians—Professor Sir Robert Christison, Bart., Drs. Charles Wilson, Graham Weir, and George W. Balfour.
Consulting Surgeon—Professor Spence.
Pathologist—Vacant.
Ordinary Physicians—Drs. Dunsmure, Andrew, Underhill, Cunynghame.
Extra Physicians—Drs. Carmichael and Playfair.
Surgeon-Dentist—Dr. Smith.
Ophthalmic Surgeon—Dr. Argyll Robertson.
Resident Physician—Dr. J. W. B. Hodsdon.
Honorary Secretary—Mr. John Henry, 20, St. Andrew-square.
Hon. Treasurer—R. S. Wyld, LL.D., 19, Inverleith-row.

EDINBURGH DISPENSARY FOR DISEASES OF THE EAR,
6, Cambridge-street, Lothian-road.
Surgeon—Dr. J. J. Kirk Duncanson.
Annual patients, upwards of 500. Open Mondays and Thursdays, 12 noon.

GLASGOW HOSPITAL AND DISPENSARY FOR DISEASES OF THE EAR,
239 and 241, Buchanan-street.
HONORARY MEDICAL STAFF.
Senior Consulting Physician—Dr. P. Stewart.
Senior Consulting Surgeon—Dr. James Morton.
Consulting Dental Surgeon—Dr. J. Edwin Woodburn.
Dr. A. K. Irwine, Dr. A. L. Kelly, Dr. J. Gardner.
Aural Surgeon and Lecturer on Aural Surgery—Dr. James P. Cassells.
Clinical Assistant—Mr. Robert Steel.

GLASGOW EYE INFIRMARY,
170, Berkeley-street, and 76, Charlotte-street.
Consulting Surgeon—Dr. George Buchanan.
Surgeons—Drs. Thomas Reid, Thos. S. Meighan, and Henry E. Clark.
Assistant-Surgeons—Drs. J. Crawford Renton, D. N. Knox, and Johnston Macfie.
Resident Clerk—Mr. George Hunter.
Secretary—George Black, 88, West Regent-street.

ROTUNDA HOSPITALS, DUBLIN.(a)
Master—Dr. Lombe Atthill.
Assistant-Physicians—Dr. Alex. Duke and Dr. Andrew Horne.
Pathologist—Dr. G. F. Duffey.

ST. MARK'S OPHTHALMIC HOSPITAL AND DISPENSARY FOR DISEASES OF THE EYE AND EAR,
Lincoln-place, Dublin.
Surgeon—John B. Story, M.B., M.Ch., F.R.C.S.I.
Assistant-Surgeon—Arthur B. Benson, M.B.T.C.D., F.R.C.S.I.
Resident Surgeon—James J. Robinson, M.B., B.Ch., T.C.D.

GREEN AND SEASONED KNOWLEDGE.—Dr. Oliver Wendell Holmes says that he has known a practitioner, perhaps more than one, who was as much under the dominant influence of the last article he had read in his favourite medical journal, as a milliner is under the sway of the last fashion-plate. The difference between green and seasoned knowledge is very great, and such practitioners never hold long enough to any of their knowledge to get it seasoned.—*Atlanta Med. Register.*

A DOLLAR AUTOPSY.—"Carelessness at judicial autopsies is notoriously frequent in the United States (and perhaps here also). Insufficient remuneration is sometimes given as the cause. In a recent case, where the witness could not testify upon an important point, and was asked the reason, he replied that 'the authorities were only willing to pay for a dollar post-mortem, and he had given them only a dollar one.'"—*Canada Med. Journal*, August.

(a) No return.

THE PUBLIC SERVICES.

ARMY MEDICAL DEPARTMENT.

No candidate to exceed the age of twenty-eight years on appointment as a Surgeon on probation.

He must be registered under the Medical Act in force at the time of his appointment, as possessing two diplomas or licences recognised by the General Medical Council—one to practise Medicine, and the other Surgery—in Great Britain and Ireland.

Candidates will be examined by the Examining Board in Anatomy and Physiology; Surgery; Medicine, including therapeutics, and the diseases of women and children; Chemistry and Pharmacy, and a practical knowledge of drugs.

The ranks and rates of pay of Officers will be as follows:—

	£	s.	d.
Surgeon-General . . . . . daily	2	15	0
After 25 years' service . . . . . ,,		—	
,, 30 years' service . . . . . ,,		—	
,, 35 years' service . . . . . ,,		—	
At Head-quarters . . . . . yearly	1,300	0	0
Deputy Surgeon-general . . . . . daily	2	0	0
After 25 years' service . . . . . ,,		—	
,, 30 years' service . . . . . ,,		—	
,, 35 years' service . . . . . ,,		—	
At Head-quarters . . . . . yearly	900	0	0
Brigade Surgeon . . . . . daily	1	10	0
After 5 years in the rank . . . . . ,,	1	13	0
At Head-quarters . . . . . yearly	750	0	0
Surgeon-Major . . . . . daily	1	0	0
After 15 years' service . . . . . ,,	1	2	6
,, 5 years' service as such . . . . ,,		—	
,, 20 years' service . . . . . ,,	1	5	0
,, 25 years' service . . . . . ,,	1	7	6
At Head-quarters . . . . . yearly	650	0	0
Surgeon . . . . . ,,	200	0	0
After 5 years' service . . . . . ,,	250	0	0
,, 10 years' service . . . . . daily	0	15	0
Surgeon on probation . . . . . ,,	0	8	0

The rates of gratuity, retired pay, or half-pay, for Medical Officers of the Army will be as follows:—

	£	s.	d.
Surgeon and Surgeon-Major:			
After 10 years' service . . gratuity	1,250	0	0
,, 15 years' service . . . ,,	1,800	0	0
,, 18 years' service . . . ,,	2,500	0	0
Surgeon-Major:			
After 12 years' service . . . daily		—	
,, 15 years' service . . . ,,		—	
,, 20 years' service . . . ,,	1	0	0
,, 25 years' service . . . ,,	1	2	6
,, 30 years' service . . . ,,	1	5	0
Brigade-Surgeon:			
After 20 years' service . . . ,,	1	7	6
,, 30 years' service . . . ,,	1	10	0
Deputy Surgeon-General . . . ,,	1	15	0
After 20 years' service . . . ,,		—	
,, 25 years' service . . . ,,		—	
,, 30 years' service . . . ,,		—	
Surgeon-General . . . . ,,	2	0	0
After 20 years' service . . . ,,		—	
,, 25 years' service . . . ,,		—	
,, 30 years' service . . . ,,		—	

Temporary Half-pay.

	£	s.	d.
A Medical Officer, under 5 years' service ,,	0	6	0
,, ,, after 5 years' service ,,	0	8	0
,, ,, ,, 10 years' service ,,	0	10	0
,, ,, ,, 15 years' service ,,	0	13	6

Candidates for commissions in the Army proceed to the Army Medical School at Netley to go through a course of study after passing the examination in London.

INDIAN MEDICAL DEPARTMENT.

The rules for admission to the above department are identical with those for the Army Medical Department. The rates of pay are as follows:—

	Years' service.	Per mensem. £. s. d.
Brigade-Surgeon.	(Not yet fixed.)	
Surgeon-Major	25	888 12 0
,, ,,	20	852 3 7
,, ,,	15	677 6 11
,, ,,	12	640 14 6
Surgeon	10	410 9 5
,,	6	392 5 2
,,	5	304 14 2
,,	under 5	286 10 0

The salaries of the principal administrative and military appointments are:—

		Rs. per mensem.
Surgeon-General, Bengal		2700
,, ,, Madras		2500
,, ,, Bombay		2500
Deputy Surgeon-General	two at	2250
	others at	1800
Brigade-Surgeon.	(Not yet fixed.)	
Surgeon-Major of 20 years' service and upwards in charge of Native Regiments		1000
Surgeon-Major in charge of ditto		800
Surgeon above 5 years' full-pay service in charge of ditto		600
Surgeon under 5 years' ditto		450

Candidates for commissions in the Indian Medical Service proceed to the Medical School at Netley to go through a course of study after passing the examination in London.

The following are the regulations for the examination of candidates for the appointment of Surgeon in Her Majesty's Service, in the Indian Medical Service (with the exception of Hindustani), and in the Navy:—

All natural-born subjects of Her Majesty, between twenty-two and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a diploma in Surgery, or a licence to practise it, as well as a degree in Medicine, or a licence to practise it, in Great Britain or Ireland, as well as a certificate of registration.

Candidates are examined in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a*. Anatomy and Physiology, 1000 marks; *b*. Surgery, 1000; *c*. Medicine, including Therapeutics, the Diseases of Women and Children, 1000; *d*. Chemistry and Pharmacy, and a practical knowledge of drugs, 100 marks.

(The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.)

The eligibility of each candidate for the Indian Medical Service will be determined by the result of the examinations in these subjects only.

Candidates, who desire it, will be examined in French, German, and Hindustani, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica.

The number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences.

The maximum number of marks allotted to the voluntary subjects will be as follows:—French, German, and Hindustani (150 each), 450; Natural Science, 300.

After passing the preliminary examination, candidates will be required to attend one entire course of practical instruction at the Army Medical School, before being admitted to examination for a commission, on—(1) Hygiene, (2) Clinical and Military Medicine, (3) Clinical and Military Surgery, (4) Pathology of Diseases and Injuries incident to Military Service.

(These courses are to be of not less than four months' duration; but candidates who have already gone through a course at Netley as candidates for the Army or Navy Medical Service may, if thought desirable, be exempted from attending the school a second time.)

During the period of his residence at the Army Medical School, each candidate will receive an allowance of 8*s*. per diem, with quarters, or, when quarters are not provided, with the usual lodging and fuel and light allowances of subalterns, to cover all costs of maintenance; and he will be required to provide himself with uniform—viz., the regulation undress uniform of a Surgeon of the British Service, but without the sword.

At the conclusion of the course, candidates will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School.

(The Director-General, or any medical officer deputed by him, may be present and take part in the examination. If the candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as Surgeon.)

The examinations for admission to the Indian Medical Service usually take place twice a year, viz., in February and in August.

ARMY MEDICAL SCHOOL.

President of the Senate.—T. Crawford, M.D., Director-General of the Army Medical Department.

Members of the Senate.—Surgeon-General Sir Joseph Fayrer, M.D., K.C.S.I., F.R.S., Physician to the Council of India; the Principal Medical Officer, Royal Victoria Hospital (*ex officio*); and the Professors of the Army Medical School.

Professors.—Surgeon-General T. Longmore, C.B. (half-pay), Professor of Military Surgery; Inspector-General W. C. Maclean, M.D., C.B., Professor of Military Medicine; William Aitken, M.D., F.R.S., Professor of Pathology; Surgeon-Major F. S. B. F. De Chaumont, M.D., F.R.S. (half-pay), Professor of Military Hygiene.

Assistant-Professors.—Surgeons-Major R. Tobin (Military Surgery), H. R. L. Veale, M.D. (Military Medicine); Surgeon-Major J. L. Notter, M.D. (Military Hygiene); and Surgeon-Major J. P. H. Boileau, M.D. (Pathology).

Surgeons on probation for the British Army and for the Queen's Indian Service proceed to Netley after passing the examination in London. At Netley they attend the medical and surgical practice of the Royal Victoria Hospital, and learn the system and arrangements of military hospitals. During four months they attend the lectures given by the Professors and Assistant-Professors, and go through a course of practical instruction in the hygienic laboratory and microscopical room.

NAVAL MEDICAL DEPARTMENT.

Candidates will be examined by the Examining Board in the same subjects as candidates for the Army Medical Service. The rates of full pay and half-pay are about 7 per cent. higher than in the Army Service, retired pay being calculated on the Army scale.

Every candidate for admission into the Medical Department of the Royal Navy must be not under twenty-one nor over twenty-eight years of age on the day on which he presents himself for examination. He must produce a certificate, from the district registrar, of the date of his birth; or, in default, a declaration made before a magistrate from one of his parents or other near relative stating the date of birth. He must also produce a certificate of moral character, and a recommendation signed by a clergyman or magistrate to whom he has been for some years personally known, or by the President or Senior Professor of the College at which he was educated. He must be registered under the Medical Act in force at the time of his appointment as possessing two diplomas or licences recognised by the General Council, one to practise Medicine, and the other Surgery, in Great Britain and Ireland. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, or any other imperfection or disability which may interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a board of medical officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's test-types. He must also declare his readiness to engage for general service at home or abroad as required.

Every candidate, immediately after passing the entrance examination, will receive a commission as a Surgeon in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital.

The foregoing is a brief summary of the main points to be

considered by students in choosing a career in the public services. All details and information are procurable on application (by letter) to the Secretaries of the different departments.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, SEPTEMBER 9, 1882.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools, for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

As this number is almost entirely devoted to matter mainly concerning Students, many important communications and contributions unavoidably stand over.

We have here given everything of importance for the entering Student to know; for any further details he should apply for a prospectus to the authorities of the School he may select.

THE WEEK.

TOPICS OF THE DAY.

The Hospital Saturday collection of the present year was made last week, and is confidently expected by its promoters to exceed in amount any previous collection since the establishment of the Fund in 1873. Any efforts, having for their object the support of the metropolitan hospitals, deserve to be encouraged by everybody; but we must again protest against this particular Saturday collection being published to the world as the contribution of the working classes. The collecting stations in the London streets this year numbered over one thousand, and it appears that ladies of title consented to preside at Hyde-park Corner, Marlborough and Clarence Houses, and at the Mansion House: it would be superfluous to ask how much of the amounts collected at these places was the contribution of genuine working-men. Undoubtedly since Mr. Samuel Morley, M.P., accepted the presidency of the Fund, matters have been much more orderly and economically administered; nevertheless, as all the money realised by the Saturday collection is distributed to the charities by a committee of delegates from working-men's societies, it would be more satisfactory if the present system could be modified in such a manner that this committee should be called upon to deal only with the *bonâ fide* contributions of the working classes.

Recently, at the Leicester Borough Police-court, a large number of persons were summoned for refusing to comply with the Compulsory Vaccination Acts, by not having their children vaccinated. In the great majority of cases conscientious objections to the operation being performed were urged; and in several instances the reasons assigned were that others of defendants' children had already suffered death and injury through being vaccinated. There are several thousand unvaccinated children in the town of Leicester, and their number is increasing at a very rapid rate, although there are more prosecutions under these Acts in this place than in all the other large towns of the kingdom put together. It is urged by the anti-vaccination party that, notwithstanding this state of things, the town is perfectly free from small-pox. This immunity is, however, mainly due to the energetic action taken by the Medical Officer of Health for stamping out the disease upon its first appearance; and it is almost certain that, in spite of such care, Leicester will, sooner or later, have to pay a heavy life-penalty for its obstinate opposition to the carrying out of the Acts. In the present instances most of the defendants were fined 10s. each, or seven days' imprisonment. In noticing these prosecutions one of our contemporaries significantly adds, "On payment of the fines the parents hear nothing further of the matter." Just so: nothing is done to encourage obedience to the law, or to educate the parents; only the "persecution," as it is popularly called, happens.

A person named Viner, of St. George's-street, Old Gravel-lane, was summoned last week, at the Thames Police-court, for falsifying a certificate for the purposes of the Births and Deaths Registration Act, 1874, concerning the death of a child aged ten months. It appeared that twelve months ago Mr. Edward Berdoe, a duly qualified practitioner, held the premises at St. George's-street, and that he subsequently disposed of the bottles and fixtures in the surgery to the defendant. His connexion with the place then ceased, but his name was retained over the surgery. About the 20th of last month Viner attended the child in question, and it eventually died; he gave the mother a certificate of death, and signed the name of Dr. Berdoe without that gentleman's authority. The mother had, she deposed, believed all along that he really was Dr. Berdoe, or she would not have taken the child to him. Mr. Lushington said it was evident that the defendant had taken on himself the duties of a registered medical practitioner in his dealings with the mother of the child; he should therefore inflict the heaviest penalty the law admitted, and fine the defendant £10 or two months' imprisonment, and five guineas costs.

Serious outbreaks of disease are reported from abroad. St. Petersburg advices announce that the Siberian plague—outbreaks of which are not infrequent, owing presumably to the utter disregard of sanitary precautions—is at present manifesting itself in an unusually widespread and alarming manner. Reports of its appearance have been received from the most widely separated quarters of European Russia, and one case of death from the pestilence is announced from Odessa. The Spanish Government are also seriously alarmed by the virulent outbreak of cholera which is reported from

Manila; a recent official despatch states that the number of deaths at that place from this disease averages about three hundred daily. At Ilo-Ilo, in the Philippine Islands, there have been 4550 deaths from cholera during the past fortnight, and a despatch from Tangiers announces that this disease has also appeared there. Precautionary measures have been ordered by the authorities, both in Algeria and Tunis, against vessels arriving from the Far East having cholera on board. There happily appears to have been really no outbreak of cholera at Aden. One sporadic case, which was fatal, occurred on board a pilgrim ship; but no other case has occurred either on board that vessel or at Aden.

Before the close of the recent Congress of the British Association at Southampton, a large party of the members, headed by the President, Dr. Siemens, and accompanied by Professor Prestwich and Dr. Gladstone, visited Salisbury, and thence proceeded to Stonehenge. At the request of Dr. Siemens, a brief address was delivered at the Stones by Professor Prestwich, who expressed the opinion that, while the greater stones had been found in the district of Stonehenge, the smaller ones had been brought from Carnac, in Brittany, where he had seen some exactly like them.

The managers of the Metropolitan Asylums Board held an interim meeting at their offices, Norfolk-street, Strand, on Saturday last, for the purpose, amongst other things, of receiving the fever and small-pox returns from their different hospitals. These returns showed that a considerable outbreak of scarlet fever has occurred in the metropolis, and the committee of chairmen of hospitals committees reported "that, owing to the prevalence of scarlet fever in the metropolis, they have directed the re-opening of a portion of the Deptford Hospital for the reception and treatment of fever cases."

The inquiry by Dr. Airy and Mr. Henley into the deaths and serious illnesses of children at Norwich, alleged to have been caused by vaccination, was brought to a conclusion on Monday, the 4th inst. The inspectors will report the result of their inquiry in due course to the Local Government Board.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-fourth week of 1882, terminating August 24, was 1034 (566 males and 468 females), and among these there were from typhoid fever 74, small-pox 8, measles 9, scarlatina 2, pertussis 3, diphtheria and croup 28, erysipelas 7, and puerperal infections 1. There were also 42 from acute and tubercular meningitis, 163 from phthisis, 14 from acute bronchitis, 56 from pneumonia, 189 from infantile athrepsia (58 of the infants having been wholly or partially suckled), and 33 violent deaths (27 males and 6 females). Although the number of deaths registered for this week is comparatively less than that of the preceding week, the mean is higher than that of the mean of the four preceding weeks. However, the sanitary condition of the metropolis is considerably ameliorated, the epidemic of typhoid fever having decreased both in its mortality and morbidity, for while there are only 74 deaths as compared with the 106 of last week, the number of admissions to the hospitals has diminished from 338 to 251. The deaths from diphtheria have also diminished from 36 to 28. The number of deaths from infantile athrepsia still continues very large. The births for the week amounted to 1181, viz., 605 males (461 legitimate and 144 illegitimate) and 576 females (420 legitimate and 156 illegitimate): 98 infants were either born dead or died within twenty-four hours, viz., 56 males (13 legitimate and 13 illegitimate) and 42 females (29 legitimate and 13 illegitimate).

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 2, 1882.

BIRTHS.

Births of Boys, 1284; Girls, 1212; Total, 2496.
Corrected weekly average in the 10 years 1872-81, 2539·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	736	737	1473
Weekly average of the ten years 1872-81, corrected to increased population ...	746·4	701·5	1447·9
Deaths of people aged 80 and upwards			44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (uncorrected).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	3	9	...	3	...	...	1	25
North ...	965847	6	3	8	5	10	...	...	...	33
Central ...	282238	...	4	1	4	2	...	...	...	7
East	692738	1	11	14	4	6	...	2	...	25
South	1265927	...	11	10	5	9	1	4	1	53
Total	3816483	7	32	42	18	30	1	6	2	153

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·576 in.
Mean temperature	58·1°
Highest point of thermometer	70·1°
Lowest point of thermometer	44·0°
Mean dew-point temperature	52·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·42 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 2, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Sept. 2.	Deaths Registered during the week ending Sept. 2.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2496	1473	18·7	70·1	44·0	58·1	14·50	0·42	1·07
Brighton	109505	55	51	24·3	70·0	50·3	58·7	14·83	0·83	2·11
Portsmouth ...	129916	80	52	20·9	...	...	...	...	...	...
Norwich	88621	56	33	19·4	...	...	...	...	...	...
Plymouth	74448	27	27	18·9	67·0	47·0	57·0	13·89	1·98	5·03
Bristol	210134	136	63	15·6	66·4	43·5	56·3	13·50	1·97	5·00
Wolverhampton ...	76756	48	42	28·6	63·5	44·7	53·8	12·12	0·64	1·63
Birmingham ...	408532	272	219	28·0	...	...	...	...	...	...
Leicester	126275	81	58	24·4	...	...	...	...	...	...
Nottingham ...	193573	116	81	21·8	65·7	42·6	55·4	13·00	0·54	1·37
Derby	83577	56	29	18·1	...	...	...	...	...	...
Birkenhead ...	86542	64	36	21·7	...	...	...	...	...	...
Liverpool	560377	394	273	25·4	65·9	48·7	55·2	12·89	1·02	2·59
Bolton	100767	59	50	24·4	64·0	42·0	53·1	11·73	1·39	3·53
Manchester ...	340211	248	201	30·8	...	...	...	...	...	...
Salford	181004	134	94	26·7	...	...	...	...	...	...
Oldham	115572	63	52	23·5	...	...	...	...	...	...
Blackburn	108460	82	52	27·5	...	...	...	...	...	...
Preston	97856	67	64	34·2	...	...	...	...	...	...
Huddersfield ...	83418	36	40	25·0	...	...	...	...	...	...
Halifax	74713	53	30	20·9	...	...	...	...	0·80	2·03
Bradford	200158	124	85	22·2	66·5	48·4	55·6	13·12	0·85	2·16
Leeds	315898	184	144	23·8	68·0	47·0	56·5	13·61	0·85	2·16
Sheffield	290516	242	164	29·5	...	...	...	...	...	...
Hull	158844	146	106	34·8	...	...	...	...	...	...
Sunderland ...	119065	97	70	30·7	70·0	46·0	57·0	13·89	0·45	1·14
Newcastle	147626	108	67	23·7	...	...	...	...	...	...
Cardiff	88724	49	27	16·2	...	...	...	...	...	...
For 28 towns ...	8169571	5531	3688	22·7	70·1	42·0	56·1	13·39	0·99	2·51
Edinburgh	232410	130	85	19·1	65·8	43·3	54·6	12·56	1·26	3·20
Glasgow	511048	370	226	22·9	64·0	41·0	55·8	13·23	1·44	3·66
Dublin	348293	164	182	27·3	70·2	45·3	56·5	13·61	1·04	2·64

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·58 in. The lowest reading was 29·24 in. at noon on Tuesday, and the highest 29·91 in. on Wednesday evening.

ORIGINAL LECTURES.

LECTURE ON HYPERTROPHY OF THE HEART.

By BRYAN CHARLES WALLER, M.D.,
Lecturer on Pathology in the School of Medicine, Edinburgh.

(*Concluded from page* 149.)

We shall now briefly advert to those obstructive causes of hypertrophy whose situation is extra-cardiac. These affect the right or left heart, according as they are situated in the course of the pulmonary or systemic circulations, the mechanical effects being much the same as in intra-cardiac lesions, though the obstruction is of course further removed from the central organ of circulation. Obstructions of the pulmonary vessels with secondary hypertrophy of the right side of the heart are due to a variety of causes. Among these we may enumerate interstitial pneumonia or pulmonary cirrhosis; chronic emphysema, with destruction of the vesicular capillaries; embolism of large branches of the pulmonary artery; large pleuritic effusions causing lobar collapse; compression of the lung from curvature of the spine; chronic bronchitic and pneumonic affections; atheroma, dilatation, and aneurism of the pulmonary arteries; and lastly, obstructive or regurgitant valvular disease of the left side of the heart, leading to engorgement of the lungs, and thus acting backwards upon the right ventricle.

Quite as numerous are the obstructive conditions of the systemic circulation capable of producing hypertrophy of the left side of the heart. Large aneurisms of the aorta and great vessels, especially if of saccular form, act as causes of hypertrophy by increasing the resistance to the blood-flow, in accordance with the well-known physical fact that sudden dilatations and contractions in a system of pipes tend to impede the onward passage of fluid through them. Another frequent cause is atheroma of the systemic vessels, which acts by impairing the elasticity of the arterial coats, and causing thickening and narrowing of the months of their smaller branches. Congenital contraction of the *isthmus aortæ*, or that portion of the arch between the left subclavian and the ductus arteriosus is usually accompanied by hypertrophy of the left ventricle. The pressure of tumours or aneurisms on the thoracic aorta is another occasional cause. So also is the rare condition of general congenital diminution in calibre throughout all the vessels of the arterial system, which is mentioned by Rokitansky as being most frequent in females, and usually associated with imperfect sexual development. Under this head falls the peculiar hypertrophy of the heart so frequently associated with chronic Bright's disease. The etiology of this much debated condition is sufficiently interesting to demand consideration in some little detail.

The hypertrophy of Chronic Bright's Disease has been explained by different authorities in many different ways. For instance, Sir William Gull and Dr. Sutton attribute it to "arterio-capillary fibrosis," a supposed morbid state of the system, involving changes in the heart, the kidneys, and the outer coat of the arteries. The hypertrophy of the heart is supposed to be part and parcel of the general process. The objection to this explanation lies in the absence of sufficient proof of the existence of the condition in question. The subject is discussed at length in a monograph by the present lecturer ("An Investigation into the Microscopic Anatomy of Interstitial Nephritis," Edinburgh, 1880), to which I may refer those of you who are desirous of more information on this topic than is compatible with the scope of the present lecture. The next explanation is that of Dr. George Johnson. It depends upon the fact that there is almost invariably a co-existing hypertrophy of the muscular coat of the small arteries throughout the body. Now, the blood in chronic Bright's disease is undoubtedly charged with deleterious matters; and Dr. Johnson believes that the entrance of this poisoned blood into the various tissues is opposed by the arterioles, which diminish their lumen by contraction in order to exclude it. Their middle coat presently hypertrophies so as to maintain the contraction permanently; and lastly, the heart hypertrophies in order to carry on the circulation in the face of the obstacle presented by the general arterial contraction. The muscular substance of the heart and that of the arteries thus act in mutual antagonism, the one persisting in supplying and the other in rejecting the contaminated blood. During this protracted struggle, both, like contending athletes, become strengthened by hypertrophy. In a word, according to Dr. Johnson, the hypertrophy of the heart is caused by the necessity for maintaining the circulation, in spite of the opposition of the tunica media of the arteries provoked by the poisoned blood. But there are reasons which appear to me weighty, why this explanation should not be regarded as final. It presupposes a prolonged and uncompromising antagonism between heart and arteries, which seems at variance with the well-known tendency to mutual adaptation and accommodation which subsists between the various organs and functions of the living organism. Further, there is another explanation which, to my mind, appears more probable. But I commend Dr. Johnson's explanation to your special notice, not only for its ingenuity, but because it is absolutely the only one which propounds any feasible guess at the significance of the hypertrophy of the tunica media of the arterioles, and its interdependence and relation to the co-existent hypertrophy of the heart. Traube attributes the cardiac hypertrophy to increased aortic tension and engorgement, due to atrophy of the renal vessels, and interference with the excretory functions of the kidney. At the outset, we are met by the objection that the hypertrophy is not always confined to the left heart, but sometimes affects the right also. Further, it bears no constant or definite proportion to the destruction of the renal secretory apparatus or the obliteration of the vessels of the kidney stroma. The calibre of the aorta, also, is not always or even generally enlarged, as we should expect under prolonged conditions of engorgement. On the contrary, it is just as often normal, or even somewhat contracted. Moreover, there remains a last, and well-nigh fatal, objection. Even supposing the renal vessels to be entirely shut out from the circulation, the resulting rise of blood-pressure would not be sufficient to produce hypertrophy of the heart. The systemic circulation is so extensive, and its various divisions communicate with each other by anastomoses so free and numerous, that mere local vascular obstruction has very little, if any, permanent effect upon the heart. Collateral vessels dilate, and the arterial tension speedily returns to its former standard, as is amply proved when a limb is amputated or a large artery ligatured by the surgeon.

The case, however, would be quite otherwise could we prove a general diminution in the calibre of all the arteries in the system. Compensatory collateral enlargement would be out of the question, and hypertrophy of the heart would almost certainly result. Upon this consideration rests Dr. Johnson's explanation, as well as yet another, which I believe to be the true one. In chronic Bright's disease the tunica intima as well as the tunica media of the arteries is sensibly thickened. This thickening materially reduces their lumen, and appears sufficient to heighten the arterial tension, and produce secondary hypertrophy of the heart. I have myself investigated this subject with some care ("On the Nature and Sequence of the Cardiac and Vascular Changes in Interstitial Nephritis," *Lancet*, 1881, vol. i.), and have satisfied myself that in many instances, if not in all, there exists a pretty constant relation between the amount of obliterative thickening of the inner coat of the arteries, and the degree of cardiac hypertrophy. The thickening of the inner coat corresponds closely in histological characters to that termed by Heubner, Arteriitis Obliterans, and by Thoma (*Virch. Arch.*, 1877) Fibrous Endarteritis. It is now becoming recognised in this country under the name of Endo-arteritis Obliterans. This explanation accounts for the occasional hypertrophy of the right heart, for obliterative changes occur in the arteries of the lesser, as well as in those of the greater, circulation, though certainly to a less extent, and by no means so frequently.

Hypertrophies from malposition or pericardial adhesions originate in interference with the motions of the organ, entailing circulatory embarrassment and the necessity for compensation. The heart is cramped or fettered, and, while

thus working in chains, exerts extra power, the permanency of which is secured by hypertrophy.

Repeated observations have proved that the heart increases in weight up to a period considerably in advance of middle life. This increase is in a great measure due to hypertrophy, traceable to a gradual rise in blood-pressure as the coats of the arteries become rigid from senile changes. Possibly, also, the fact that the greater the age of the person the greater the total amount of work performed by his heart, may serve as an additional explanation of this increase in weight. In the absence of degenerative changes, it cannot be looked upon as an abnormality.

Hypertrophies from permanent plethora are supposed to develope occasionally in sedentary persons who live freely, and are of what is termed "full habit." Considering the facilities for adjustment provided by the vaso-motor system, and the transient nature of any plethora from excess of food or drink, I should be inclined to accept this etiology with some reservation. At all events, the connexion between the effect and the supposed cause should be exhaustively traced in each individual case. The plethora of course acts, if it acts at all, by increasing the quantity of blood, and thus raising the vascular tension.

The following are the general anatomical characteristics of hypertrophied hearts. The weight and size are increased, sometimes very markedly; in extreme instances the weight may reach two, three, or even five pounds. In general hypertrophy the contour remains nearly normal, save that the angles tend to become more obtuse. If the left side only be affected the organ assumes a more conical shape; while in hypertrophy of the right side the outline becomes more spherical. The colour is usually of a dark brownish-red tinge, several shades deeper than the normal hue. The consistence is increased, and the walls are somewhat rigid, remaining apart when the cavities are laid open. The anterior surface often exhibits milk-spots, from friction against the chest-wall. On laying open the cavities, the musculi papillares and trabeculæ are usually found to be hypertrophied; and in some cases, especially on the right side, the hypertrophy here is often greater than in the walls. In excentric hypertrophy the valvular orifices are increased in size, but are otherwise normal, save when the hypertrophy is preceded or accompanied by valvular disease.

Hypertrophy is commoner in the ventricles than in the auricles, and commonest of all in the left ventricle. In the right ventricle it is almost always of the excentric variety.

If the heart is much enlarged, the neighbouring organs will naturally be displaced to a greater or less degree. The lungs will be compressed, especially the lower lobe of the left one, and the diaphragm will be depressed, and sometimes the liver also. The heart will assume a more transverse position in the thoracic cavity, the base being to the right, and the apex to the left.

The effects on the circulation vary according as the whole heart or one side only is affected. In the following *resumé* of the circulatory conditions in general and partial hypertrophies, the excellent descriptions of Frey have been principally followed.

When the hypertrophy is general, the systolic force of both ventricles is increased. This implies increase in the arterial tension, especially if the hypertrophy is excentric. But the *vis a tergo* being also augmented, the venous return to the heart is facilitated, particularly if the cavities are enlarged. Thus the arteries become dilated, while the veins are rapidly emptied. At the same time the rate of the circulation is increased.

In hypertrophy of the left side only, the tension of the systemic circulation is increased, and still more so if the hypertrophy be excentric. The total amount of blood in the systemic vessels is increased, and that in the pulmonary vessels correspondingly diminished. The venous return to the right side of the heart is accelerated by the increased *vis a tergo* of the hypertrophied left side; and since the blood has free exit from the right ventricle into the comparatively empty pulmonary vessels, the degree of venous engorgement is inconsiderable. Further, in course of time, the first exaggerated conditions of systemic engorgement and pulmonary emptiness will tend to equalise themselves. For the blood from the comparatively empty pulmonary vessels will reach the left side of the heart at diminished tension, while the over-distended state of the aorta will presently lessen the amount of fluid discharge from the hypertrophied left ventricle. At the same time the right ventricle, though not hypertrophied, will be well supplied with blood, and possess an unembarrassed outflow into the anæmic vessels of the lungs. Thus the blood-supply to the left ventricle will be somewhat meagre, and its fluid discharge will be impeded; while the blood-supply to the right ventricle will be abundant, and its discharge free. Since the portals of the pulmonary circulation are open, and engorgement of the systemic veins is thus prevented, there is little or no tendency to cyanosis and dropsy. The rate of the blood-current is increased in both circulations: in the systemic because the left ventricle is hypertrophied, and in the pulmonary because the increased *vis a tergo* of the left ventricle produces acceleration of the flow in the venæ cavæ, and thus necessitates more rapid action on the part of the right ventricle, which possesses the additional advantage of an exceptionally unembarrassed discharge.

When the right ventricle only is hypertrophied, the total amount of blood in the pulmonary circulation is increased, while that in the systemic circulation is diminished. But as soon as the pulmonary circulation becomes engorged, the blood-flow from the hypertrophied right ventricle is impeded, while that from the left remains free, because of the empty state of the aorta. Further, the blood-supply to the left side of the heart is increased, while that to the right side is diminished; so that in this case also the circulatory conditions presently tend to become partially equalised. The principal results are therefore pulmonary engorgement and systemic anæmia, with mechanical distension of the venæ cavæ due to the pulmonary hyperæmia acting backwards upon the right side of the heart, and the great veins opening into it. The engorgement of the great veins is not, however, excessive, for the hypertrophy of the right ventricle does much to counterbalance it, and the systemic anæmia tends to minimise it still further.

The foregoing remarks are, of course, only strictly applicable when the hypertrophy is uncomplicated by primary obstructive conditions. In the latter case the mechanical effects of the hypertrophy itself are so modified by those of the original lesion, that many or all of them may be absent, the state of the circulation being then determined by the relative predominance of the one or the other of these two opposing forces.

From the previous statements it will be evident that the effects of uncomplicated hypertrophy fall principally on the arterial portions of the circulatory apparatus. The increased tension causes a liability to rupture of the coats of the smaller arteries, leading to apoplectic extravasations into the substance of tissues and organs. The arteries of the brain are especially liable to this accident, owing to the thinness of their walls, and the untoward effects are proportional in gravity to the importance of the organ affected.

Rupture of the arterial coats, either in the brain or elsewhere, may occur either as the direct consequence of the heightened tension, or indirectly as a result of atheromatous changes. Atheroma is a frequent concomitant of cardiac hypertrophy, though we cannot always decide what relation the two conditions bear to each other. Thus it is often difficult to determine whether the atheroma is secondary to the hypertrophy, or the hypertrophy to the atheroma. Indeed, the uncertainty does not end here; for both may be due to a common cause, or each may originate independently of the other. In some cases, however, the hypertrophy seems to stand in a causal relation to the atheroma. Dittrich has observed the frequency of atheroma of the pulmonary artery when the right side of the heart is hypertrophied, and contrasted it with the rarity of this affection under other circumstances. Nor is there anything improbable in the supposition that a state of abnormal tension of the arterial coats may occasion a predisposition to the occurrence of degenerative change.

It now remains for us to take a rapid survey of the symptoms by which hypertrophy of the heart is recognised during life. Hypertrophy of the left ventricle is distinguished by the following signs and symptoms, which are always more marked in the excentric variety. The apex-beat is intensified and possesses a heaving character; it is perceptible over a wider area of the chest-wall, and is generally displaced downwards, and to the left. The area of cardiac dulness is extended in the same direction, unless a portion of emphysematous lung happens to intervene between the heart and the chest-wall. The heart-sounds are distinctly louder, unless

muffled by emphysematous lung, and often assume a clicking character. This click, when heard at the apex, and synchronously with the first sound, corresponds with the *cliquetis métallique* of Laennec, or *tintement métallique* of Bouillaud. It is by no means invariable, and is heard best in persons with thin chest-walls. It is often more audible without the stethoscope. Bouillaud is probably right in ascribing its cause to a peculiar jarring of the chest-wall when set in motion by the strong impulse of the hypertrophied heart. Thus it often appears only when the heart's action is increased, becoming inaudible again as the excitement subsides. Its frequency in patients with thin chest-walls is explained on the supposition that thin ribs vibrate more easily than thick ones. The pulse is strong and full, and the distension of the arteries is sudden and excessive. There is visible carotid pulsation, and a loud humming sound, synchronous with the cardiac systole, is audible over the larger arteries. The respiratory functions are generally pretty normal, unless the heart is so much enlarged as to compress the lungs to an appreciable extent. The half-filled state of the pulmonary vessels is counterbalanced by the increased speed of the circulation, so that there is no dyspnœa from defective arterialisation. Cyanosis and dropsy are absent, because there is no engorgement of the venous system. In some cases palpitation is complained of, but this symptom is not constant.

The recognition of hypertrophy of the right side is more difficult, but the following indications should be noted. The apex-beat is intensified, and its area is widened; it is often perceptible over the sternal region. Pulsation may be communicated to the left lobe of the liver, with which the heart is in contact. Percussion dulness is increased, especially in a transverse direction; it is often traceable some distance beyond the right border of the sternum. Careful auscultation may reveal intensification of the tricuspid and pulmonary sounds. A louder sound may be heard over the pulmonary area than over the aortic. But it must be remembered that auscultation of the right side of the heart does not yield such positive and reliable information as when the left side is the object of investigation. The indications afforded by auscultation and percussion may be more or less masked by pulmonary emphysema, or some other concomitant or causal condition; for hypertrophy of the right side of the heart is almost unknown as an independent process, and is well-nigh invariably accompanied by valvular or pulmonary lesions of an obstructive character. Other subjective and objective symptoms sometimes present in these cases (such, for instance, as intense dyspnœa, cyanosis, and dropsy) are due not to the hypertrophy, but to the primary lesion influencing its development. Not only are they not caused by the hypertrophy, but, on the contrary, they are so modified and controlled by it that its absence or failure would entail their marked aggravation.

The signs and symptoms of general hypertrophy are those of the two former conditions combined. The apex-beat is usually very strong and heaving, and its area is even more extended than in the partial forms. Not only may it be perceptible in a situation downwards and to the left of the normal position, as in hypertrophy of the left side, but also in the sternal region, as in hypertrophy of the right side. Pulsation is often communicated to the left lobe of the liver. The cardiac dulness is increased in all directions, both downwards and to the left, and also transversely. The heart-sounds are intensified, and the pulse is sudden, full, and strong. Visible carotid pulsation and systolic arterial sounds are frequent. In all varieties of hypertrophy, but more especially in this one, the præcordial region often appears abnormally prominent. These conditions all assume their most pronounced aspects when the hypertrophy is excentric.

The prognosis of uncomplicated cardiac hypertrophy is favourable, though patients so affected are always liable to attacks of apoplexy, especially after unusual bodily or mental exertion. Anything which tends to excite the circulation, and thus increase the already excessive arterial tension, should therefore be avoided. But it often happens that the symptoms of hypertrophy are so insignificant as to be disregarded until an apoplexy has occurred; nay, they may even remain unsuspected until finally revealed at the post-mortem examination.

Patients suffering from hypertrophy often never apply to the physician at all, and frequently survive to a good old age, dying at last from some other cause. The more evenly they hold "the noiseless tenor of their way," the better is their chance of prolonged existence.

But while the general prognosis of uncomplicated hypertrophy is good, it is otherwise with those forms which are secondary to grave organic lesions either of the heart, the lungs, or the vessels; for here the element of danger is in the original condition. In each individual instance the physician's opinion must be based upon a comprehensive consideration of all the features of the case. For instance, if the hypertrophy is secondary to valvular disease, he should take into account, firstly and principally, the effects of the primary lesion, regarding the hypertrophy merely as a subordinate and by no means unfavourable factor.

Such, gentlemen, are the principal varieties of Hypertrophy, their causes, and results. In the next lecture we shall treat of the converse condition of Dilatation, with special reference to the contrast between its effects and those of the hypertrophy we have just been discussing.

MORPHIOMANIA.—In a paper read at the Rochelle meeting (*Gaz. Hebd.*, September 2), Dr. Landowsky drew attention to the fact that besides the cerebral disturbances caused by the excessive use of morphia, venous congestions were also induced by it, which in the long run led to permanent lesions, especially of the kidneys, inducing albuminuria or glycosuria. He also called attention to the too great frequency with which injections of this powerful agent are entrusted to inexperienced nurses and the patients themselves.—Prof. Verneuil remarked upon the frequency with which patients who come to consult surgeons have before that time been trying and abusing the hypodermic method. In their case a condition is generated, which at the time they may have to undergo an operation may compromise their existence by their intolerance of chloroform, or later on expose them to the occurrence of fatal erysipelas or diffuse phlegmon—not that they are still under the influence of morphia, but have become through it the subjects of glycosuria, albuminuria, etc.—M. Rochard, in relation to the colossal doses that are sometimes employed, cited the case of a lady who injected as much as three grammes (forty-five grains) of the hydrochlorate of morphia daily. He further remarked that even when large doses are injected, neither constipation, loss of appetite, nor any other affection of the digestive organs is produced, while even small doses taken into the stomach produce these effects.—Dr. Landowsky has observed in several women, who accustomed themselves to excessive injections, that small mucous bursæ formed on the sides of the first phalanx of the index and median finger, which are due to the manner in which these morphiomaniacs practise the injection rapidly with one hand when they are alone. In doubtful cases, the existence of these bursæ may throw light on the diagnosis.

STATISTICS OF INSANITY IN THE UNITED STATES.—Dr. C. L. Dana gives (*Journal of Nervous and Mental Diseases*, April) the following statistics regarding the insane in the United States:—"We had, in 1880, in round numbers, 80,000 (to 96,0000, which gives a ratio of 1—570 (1—520) of the population. The census ratio in 1860 was 1—310; in 1870, 1—1105; in 1875, 1—953. Our population has increased in the decade 1870-80 about 26 per cent., while our insane have apparently increased over 100 per cent. As regards the *distribution* of insanity and of its *increase*, the proportion of insane is greatest in New England, where the ratio is 1 to 357. Here, however, the rate of increase is becoming slower. In proportionate numbers of the insane, after the New England and Pacific States, come the Middle States (1 to 446), then the Western (1 to 570), and then the Southern (1 to 780). As regards asylum accommodation, in 1881 we had 74 State and 14 large private asylums, with a capacity approximately for 31,900, but holding 39,145. At a very low estimate, therefore, our asylums are overcrowded to the extent of 10,000 patients, while there are about 50,000 who are not in asylums at all. Regarding the cost of the asylums, we have about $40,000,000 invested in them at an average cost of over half a million apiece. It takes about $8,050,000 a year to run them, or $82,000 for each institution. If interest be added, the total annual expenditure for the cure of the insane amounts to $12,000,000. The annual cost per patient has been variously estimated at from $166 to $316."—*New York Med. Record*, August 5.

LECTURE ON

MEDICAL HIGHWAYS AND BYWAYS.

Delivered before the Students of the Medical Department of Harvard University on May 10, 1882.

By OLIVER WENDELL HOLMES, M.D., LL.D.,
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I PROPOSE to point out some of the stepping-stones and some of the stumbling-blocks which have helped or hindered the progress of the Art of Healing. When I look at the long array of the volumes of Sprengel; when I remember the stores of learning contained in the eight quartos of Haller's Bibliotheca; when I notice the space occupied by the condensed accounts of Bostock and Alison,—all now antiquated and constituting a mere prelude to the medical history of the last generation,—I smile to think of the task before me, and the scanty hour allotted for its performance. Evidently I have little time to waste in the way of introduction.

But in looking back over the past history of medical science and art we find the prospect like that of the forest settler with a burnt district behind him. Here and there a tree may be standing, but the eye ranges over charred and lifeless trunks with their feet in the ashes of their leafy raiment. Why should we linger among the blackened stumps and the desolate scenery?

Everywhere the stumps of old theories, the ashes of futile experience, fill the landscape, and we feel tempted to turn away from a view so barren and hopeless. Yet we must remember that these wrecks of old beliefs have in their time furnished shelter and shade to the generations that knew them living. We must not forget that they ripened the seeds of growths yet vigorous with deeper roots and stronger branches. But still we shall find a few rapid glances over the burnt district of the past enough for our purpose.

There must have been a time when human beings had nothing but their instincts to guide them to the means of relief when suffering from accident or disease. Animals know enough to rest an injured part and to lick their wounds. An idiot girl, mentioned by Dr. Carpenter, gnawed the umbilical cord to separate herself from her new-born child. There is a popular notion that instinct directs some animals to the natural antidotes of poisons. But instinct in the human race is so soon replaced by experience that a very brief chapter disposes of it. It is enough to say that it is a guide always to be listened to and sometimes to be trusted. Cold drinks and cold affusion have often been asked for, and proved useful to the patient who longed for them. But a draught of cold water has frequently caused sudden death. A promising youth, son of a former President of Harvard College, put his head under the stream from the nose of a pump one hot day, and died of sudden peritonitis in consequence.

The first lessons of experience must have been often painful and sometimes fatal. Poisonous berries would look tempting; various kinds of dangerous food, or what was taken for food, would play false with those who ventured upon it. When our Pilgrim Fathers first landed on Cape Cod they found certain mollusks on the sandy shore which looked desirable, and were naturally inviting to the half-starved wanderers, long caged in the little *Mayflower*. They indulged freely in the unknown mollusks, which, in the expressive words of the old chronicler, did cause them "to cast and to scour," and thus gave them one of those medical lessons which must have been common in the early history of mankind. In this way food, poison, helpful drugs, were first discovered. One notable drug, *nepenthes*, a narcotic, perhaps opium, or hyoscyamus, or hashish, it may be, was known before the days of Homer, for our old friend, handsome Helen of the Iliad, an erring sister, but now reclaimed as we find her in the Odyssey, and living with her much enduring husband, mingles it in the draught she gives her guests as a night-cap to insure their peaceful slumbers.

The next stage of medical history finds the treatment of disease in the hands of priests and sorcerers. How the idea of good and evil supernatural agents springs up in every human tribe, I need not attempt to show. But if malignant beings are believed to exist, nothing can be more natural than to attribute disease to them. Then the evil spirit must be driven off—by smoking him out, as in the Apocryphal story of Tobit, or by howling and "making a hellish noise" about the sufferer, as our Indians were wont to do.

Next to the supernatural or magical period would follow in due order that of physical theories. As the phenomena of the microcosm or outer world were first philosophically studied, the generalisations arrived at would not unnaturally be applied to the microcosm or lesser world of the living human system. So it came about that as four elements—air, earth, fire, water—were recognised in one, four corresponding elements were recognised in the other. These were blood, phlegm, bile, and a fourth less definite fluid known as black bile. Changes in the quality and in the quantity, absolute or relative, of these four fluids were assumed to be the cause of the different diseases to which man is subject. This was the doctrine known as the humoral pathology, that of Hippocrates and Galen, the most prominent one in medical history, and kept in constant preservation to this day by its unconscious embalmers, who insist that they are *bilious* whenever their digestion is out of order.

By-and-by it would be felt that the solid parts of the body, as well as its fluids, must be concerned in disease. Then would come into existence a school of *solidists*, such as the sect known as the *Methodics*, who found the cause of disease to consist chiefly or largely in spasm or relaxation; the *strictum* and *laxum* of Themison,—the physician satirised by Juvenal in the familiar line

Quot Themison ægros autumno occiderit uno.

Behind all these phenomena it would necessarily befelt that there was some *power* at work of which these were the effects; what we should call the vital force; a form of agency which, whether seen in the acts of the individual cell, or the co-ordinated working of the entire organism, is phenomenally distinguishable from the movements of brute matter. This force, which Hippocrates recognised as *φύσις* or *φύσεις*, nature or natures, would assume more and more importance as the living actions in health and disease were studied. In this way we arrive at last at the metaphysical stage of the *animists*, which culminated in the *Archeus* of Van Helmont, a conscious agent governing the bodily actions, natural and morbid, and requiring to be managed, to be conciliated, to be governed, without knowing it, as a sharp-witted woman manages, wheedles, and eventually subjugates a refractory husband, and in her turn is bridled, harnessed, and driven by her petted offspring. Whatever other theories we may hold, we must recognise a *vis medicatrix* in some shape or other. "*Ie le pensay et Dieu le guarit*" (I dressed his wound and God healed it), was the saying of Ambroise Paré, which you may read today on the walls of the lecture-room of the École de Médecine in Paris. The operator amputates a limb and leaves a bleeding wreck after him. What surgeon who looks on the rounded and cushioned stump a few weeks later can help owning—

> "There's a Divinity that *shapes our ends*,
> Rough hew them how we will"!

No matter what theory prevails, or has prevailed—physical, metaphysical, humorist or solidist or animist—there always are, and always have been, those who are content to study disease as they see it, without regard to any *à priori* opinions or deductive generalisation. So there is one broad division running through medical history—sometimes, as in the school of Alexandria, separating medical practitioners into hostile camps; that of the Dogmatics and that of the Empirics—the believers in "*It ought to be*, because my theory says so," and the believers in "*It is*, because *I see it*."

If you wish to know something of these, and of the various theories which have prevailed to ancient times, I will refer you to the Preface of Celsus to his work "De Medicina." Let every student learn enough of Latin to read this, for its clear narrative, its philosophic breadth and dignity, its lesson of simple style and elegant Latinity. Then let him read the treatise of Cabanis on the Revolutions of Medicine,—in French if he can, in the translation if not in the original,—and he will have an outline of the earlier history

(a) From our contemporary, the *Boston Medical and Surgical Journal*.

of his calling, which he can fill up at his leisure from the larger histories of medicine. There is a small volume, published within the last year, which contains much that may be found in the two authors I have mentioned, and a good deal more which will prove interesting. Its title is "Medical Heresies," its author Professor Smythe of the College at Indianapolis, its publisher Presley Blakiston of Philadelphia.

I must leave all these, and come to the two modern periods.

The new birth of anatomy dates from the great work of Vesalius, first published in different editions about the middle of the sixteenth century. From the study of normal anatomy arose in natural order of succession the knowledge of the organic changes effected by disease or constituting it. In 1679 Bonetus published his "Sepulchretum, sive Anatomia Practica," a great collection of more or less imperfect accounts of fatal cases, with autopsies and comments, the cases having been gathered from a vast number of authorities. With all its imperfections, this massive work was the foundation for after-builders. From this time speculation about the causes of disease was more and more regulated by the observed changes in the parts affected. The science of medicine had started on a new career. The publication of Morgagni's work, three quarto volumes, entitled "De Sedibus et Causis Morborum," established the reign of pathological anatomy, founded by Bonetus. One of the most intelligent of my fellow-students, as I remember, read through these three volumes of Morgagni, doubtless under the advice of an instructor. He might have done worse then; to-day he can do better.

Another century passed before the art of healing found a new teacher in the person of a physician who was born with that power of observation, that tact and sagacity, which are the supreme gifts of the practitioner. In the words of the illustrious Dr. Thomas Young, "Physic is one of those departments in which there is frequent necessity for the exercise of an incommunicable faculty of judgment, and a sagacity which may be called transcendental, as extending beyond the simple combination of all that can be taught by precept." This "incommunicable faculty" is the same quality which Cabanis speaks of as that tact which alone can render available at the bedside all the stores of knowledge and all the common powers of reason.

The Father of common-sense practice in England was *Thomas Sydenham*, "the restorer of true physic," as Hume calls him, a man whose name is coupled with exalted praise in the pages of Johnson and Macaulay, and gives its title to one of the most useful and distinguished British medical societies. He had his hypotheses like others of his time,—he talked about the humours as preceding generations had done, but he kept his eyes open, he watched the progress of disease, he noted the influence of times and seasons, he recognised the meaning of the efforts of nature in the cure of disease. He ordered free ventilation for diseases in which the patient had been "stifled in bed": he directed horseback riding for consumptives; he prescribed a roast chicken and a pint of canary for a nervous young man whom the pedants and the pathologists of his day would have probably bled and drenched,—in short, he was a man of excellent judgment and much more than common sagacity, and did not allow his theoretical speculations to blind him to the facts of disease before his eyes. It is almost two hundred years since Sydenham died, but there is wisdom in his writings which never grows old. Many among you know of the late Dr. John Brown, of Edinburgh, by his charming story, "Rab and his Friends." I fear that fewer of you have read his "Locke and Sydenham," and I commend to your special attention this most interesting account of the great English philosopher who was also a physician, and the great English physician who belonged to that best class of philosophers who, in the words of an old hymn I half remember,

> Not only know,
> But always practise what they know.

You may be surprised that I have not devoted some considerable space to the wonderful discovery of Harvey. But it has been said, and I think with some truth, that no great change in medical practice was effected by this physiological discovery. I will not attempt to investigate the indirect influence it may have had on medicine, and especially on surgery. It is a part of that connected series of ascertained data of the laws of life which, when it does not lead directly to practical consequences, often points the way which experiment is to follow, and on which it remains for experience to pass its judgment.

The last half of the last century was rendered illustrious in medical history by the names of John Baptist Morgagni, Albert von Haller, and John Hunter. Of the first I have already spoken. Haller was the most learned of medical scholars, the stateliest figure in our historical portrait-gallery, a man of civic dignities and of literary celebrity, a botanist, a physiologist whose theories have had wide influence, whose work on that branch of science is monumental; a scholar whose three Bibliothecæ—Anatomica, Chirurgica, Medicinæ Practicæ—are precious storehouses of medical bibliography, enriched with brief, enlightened criticisms, conveyed in a style at once clear and elegant. Not to know and value his works implies a somewhat narrow horizon of instruction.

John Hunter, unscholarly, obscure in expression, uncouth in diction, bears for all that the greatest name since Harvey's in the annals of English anatomical and physiological science. Two generations ago English and American practitioners held the name of Hunter in such reverence that they almost paused in their speech before mentioning it, as Robert Boyle is said always to have done before uttering the name of the Deity. A great comparative anatomist, a great physiologist, the creator of a vast museum, the author of innumerable original observations of interest to medical science, a surgeon of distinction, a man of powerful native genius, insatiable in thirst for knowledge, indefatigable in accumulating it, his works have been treated as quarries by those who came after him, as the Coliseum was used to build up palaces for the Roman nobles of later ages.

When we come to the broad field of medical practice we shall find that nothing was felt so widely all over it as the jar of that fierce battle between the adherents of Cullen and Brown in the last quarter of the last century. William Cullen had his theories, like other teachers, but he was not the less a sound and sensible practitioner. John Brown, the father of the so-called Brunonian system, was essentially a theorist, and deduced his practice from his theory. His doctrines of sthenic and asthenic diseases and the treatment based on his doctrines had a very wide, if a temporary, influence. He had got hold of a truth, but there is nothing more dangerous than a truth allied with a falsehood, a fiction, an illusion, and applied without regard to the language of experience, which the false prophet always interprets to suit himself.

We find ourselves brought down to the close of the eighteenth century, and the beginning of that which is now in its last quarter. We have reached a period with the history of which you are supposed to be better acquainted than with that of the long succession of preceding ages over which we have been casting our hasty glances. I need only indicate the leading lines along which the steps of medical progress have passed within the range of our more immediate vision.

The great discovery of the protective power of vaccination against small-pox, made at the close of the last century, came into general recognition in the first years of the present one. *Inoculation*, introduced into England from the East, first into America by Zabdiel Boylston, of Boston—encouraged, let it be remembered, by Cotton Mather—had been practised since 1721. In Dr. Waterhouse's collection of papers on vaccination may be found the following table:—

Natural Small-pox. A Contagious Disease.	Inoculated Small-pox. Contagious.	Kine-pock. Non-contagious. Never fatal.
One in six who take it dies. It is like an attempt to cross a dangerous stream by swimming, where one in six perishes!	One in 300 dies. It is like crossing the stream in an old, leaky boat, where one in 300 perishes.	It is like crossing the stream on a new and safe bridge.

Next to this, among the grand discoveries which irradiate not merely the footpath of medical science and art, but the great highway of humanity, is that of induced anæsthesia. Its cradle was the Massachusetts General Hospital, as surely as Faneuil Hall was the cradle of Liberty. Not that the earliest hint of either of them was first breathed under those roofs. The Messiah was long promised and expected, but he was born and cradled at Bethlehem. In spite of the not infrequent attempts to appropriate elsewhere the credit of this heaven-sent gift to mankind, of which the most extra-

ordinary is that of the late Sir James Simpson in the eighth edition of the "Encyclopædia Britannica," quietly superseded, I am pleased to say, in the ninth edition of the same work, Boston is the Bethlehem of this divine birth, and will, in the light of that fact, remain one of the sacred shrines of humanity as long as the waters wash her feet and the winds blow over her dwellings.

Next in importance to the practical application of anæsthesia we may mention the introduction of physical methods of exploration—auscultation, formally brought before the world by Laennec in 1819; and percussion, revived by him after more than half a century of comparative neglect. Of this I can speak with some confidence, for I was once well acquainted with it practically, and I have made many an ante-mortem autopsy with my stethoscope and plexiometer. There is no need of insisting on the value of a method of ascertaining the existence of disease so obviously of great assistance. But it may be carried too far, and I am afraid sometimes is so. I have often felt, when seeing hospital patients worried by hammering and long listening to their breathing, in order that the physician might map out nicely the diseased territory, the boundaries of which he could not alter, as if it was too much like the indulgence of an idle, and worse than idle, curiosity. A confessor may ask too many questions,—it may be feared that he has sometimes suggested to innocent young creatures what they never would have thought of otherwise. I even doubt whether it is always worth while to auscult and percuss a suspected patient. Nature is not unkind in concealing the fact of organic disease for a certain time. What is the great secret of the success of every form of quackery? *Hope kept alive.* What is the too-frequent fatal gift of science? *A prognosis of despair.* "Do not probe the wound too curiously," said Samuel Sharp, the famous surgeon of the last century. I believe a wise man sometimes carefully worries out the precise organic condition of a patient's chest when a *very* wise man would let it alone, and treat the constitutional symptoms. The well-being of a patient may be endangered by the pedantic fooleries of a specialist.

Perhaps the medical use of the thermometer is the next in importance of the medical improvements of our century. But of this I have nothing to tell you which you do not know or will not soon learn. Of the ophthalmoscope and laryngoscope I can say nothing of my own knowledge.

With the beginning of the present century we have entered upon a new era—that of General Anatomy or Histology. For an exalted, perhaps extravagant, estimate of Bichat, its illustrious originator, I must refer you to the well-known work of Mr. Buckle. The "Anatomie Générale," given to the public in the year 1801, changed the whole character of anatomical and pathological investigations. Tissues were studied where organs only or chiefly had been considered, and a new light was thrown on the laws of health and disease.

But General Anatomy was working mostly with unaided senses, as the astronomers before Galileo explored the heavens. The improvement of the compound microscope—say rather its new creation,—by rendering its object-glass achromatic, was destined to make a far wider and deeper transformation in anatomy, physiology, and pathology than even the splendid and fertile generalisations of Bichat. Between 1830 and 1840 the results obtained through the use of the perfected instrument began to appear in the great work of Ehrenberg on Infusoria, the treatises of Schleiden, Schwann, Henle, Gerber, and many others. From that day to this the microscope has been the Urim and Thummim of the priesthood of biological science.

Its largest revelation has been that of showing the history of the cell and its relation to the organism in health and in disease. We have learned that the law of life in a complex animal organism is local autonomy, with universal suffrage; the individual cell being the citizen of a federal republic; the various departments being distributed among the different viscera, its senate and legislature in the nervous centres, the chief of which is under the dome that crowns the living structure. Here was prefigured what we Americans consider the adult and completed development of civic order.

I cannot resist the temptation of a moment's digression.

Already in the first man who trod the soil of our planet the great mechanical and chemical discoveries of uncounted coming ages were anticipated. His tissues were woven in a loom no Eastern fingers, no Western machinery, could rival. Where strength was needed, a power of resistance like that of iron was given to strands of fibres finer than the spider's thread, seen only as it glistens in the sunbeam. Where elasticity was wanted, a substance like caoutchouc exuded and solidified. The pillars which support his frame would crumble under it were they not many times stronger in substance than the columns which support his temples. The leverage of his limbs is adjusted to his needs with an audacity which no engineer would venture. The hydraulics of the circulation are but clumsily imitated in our aqueducts and their distribution. And what are all the flood-gates of human contrivance compared to those delicate translucent valves which we were so recently studying, which stand guard at the mouth of the great artery, and arrest the solid column of blood coming back upon them like the blow of a hammer day and night, seventy times a minute, for seventy years, and so many more as life may spare us? Man is more than a machine, but as a machine he is an ever-present miracle. His heart is a time-keeper which counts the seconds for a century with one winding-up. The heating apparatus of our dwellings, in the surfaces of its radiators and the pots of its furnaces, only repeats the valvulæ conniventes and the villi of our own mucous membranes. No telephone conveys a message so faithfully as the membrane of the tympanum transmits it to the listeners in the recesses of the labyrinth. No steam-engine can work with so little fuel as the human organism; no dye-house can reproduce the glow of a youthful cheek; no laboratory can manufacture a grain of albumen; no musical instrument can reach the human heart like a woman's voice; no lens can adapt itself to light like the human eye. And so we come back to the microscope, the perfection of which was developed by imitating as it best might those achromatic arrangements, the darkening pigment, the diaphragm, the adjustments for distance, which were all complete in the first man who opened his eyelids on creation.

The latest great accession to the list of the gains we owe to the microscope is the discovery of the part played by different microscopic organisms in the production of disease, and the preventive and curative methods growing out of that discovery.

You must permit me to enumerate in the briefest possible manner some others of the changes that mark the progress of the time over which my own knowledge extends, and which belong to the history of medical science.

The treatment by hypodermic injections has enabled the physician to stay the anguish of dyspnœa and arrest the thrills of neuralgia, as the harper stills the quivering cords of his instrument by laying his hand against them. Old measures of treatment have fallen into disuse. Bleeding is almost a lost art, so rarely is it employed. Medicines once in daily request, such as antimonials and mercurials, have taken the back shelves, and left others, the iodides and bromides especially, in the foreground. Sulphur, "once so prominent," says Mr. Metcalf, "in medicine and theology, is now almost eliminated from both." "Fifty years ago," he says, "it came at this season into almost every family, like any other form of spring cleaning, and with the same disagreeable results." I need not say how much has been effected in the way of rendering drugs less odious to the smell and taste. Happy the child born since the days of "brimstone and molasses"; who has not sickened in anticipation at the very name of ipecac, and felt his whole life embittered by the flavour of rhubarb!

If I should do more than allude to the subdivision of medical practice into specialties; if I should do more than hint at what the Gynæcologists, the Dermatologists, the Laryngologists, and the other long-established specialists have accomplished in their several departments, I should be at the beginning of a volume instead of beyond the middle of a lecture. In surgery the *felix audacia* of ovariotomy has achieved the greatest triumph of operative art. I know by report something of what has been accomplished by antiseptic treatment. American ingenuity has been conspicuous in the departments of plastic surgery and mechanical dentistry. You know what the distinguished Professor of Surgery in this School has done for his art; the world knows it too. How many living surgeons, how many living or dead American surgeons, can claim to have done so much for their branch of the profession as the man who rekindled the torch of Sir Astley Cooper, and flashed his electric light on

the path of Sir Henry Thompson? I may remind you also of the employment of paracentesis, with aspiration, of the thorax in acute disease, the introduction of which has added the names of Bowditch and Wyman to those of the benefactors of the race.

There are many memorable events in recent medical history. Yet there is one gain so vast that we can hardly compare any curative measure with it for importance; I mean the knowledge which has been gained in the art of *preventing* disease; the hygiene of cities, the construction of hospitals, the better study of all those conditions, including climatic influences, which favour health in the two sexes at different ages.

Leaving the practical side of medical science for a moment, I will barely allude to the results obtained in physiology by the invention of instruments of precision, like those of Marey, for instance, and the skilful use of vivisection—a mode of acquiring knowledge justifiable in its proper use, odious beyond measure in its abuse, but not a proper subject of censure to the sportsman who mangles the bird he does not bag, to the fisherman who takes a hundred trout when he does not want more than a dozen, to the huntsman who runs down a fox or a hare until, when he can drag himself no further, he is torn to pieces by the hounds, nay, to the man who asks the blessing of God on what is before him, and swallows a dozen living oysters, unless he prefer them as they come from the gridiron, where they have died by the martyrdom of the broiled Saint Lawrence.

It only remains to speak of new methods and theories which have been the product of our century. I will briefly allude to two: the doctrines of Broussais, and the numerical system of Louis. "Broussaisism" is obsolete, almost forgotten at the present day. Louis, Andral, Chomel, Trousseau, and others, better observers, and less run away with by theory, killed it. I have heard Broussais lecture often: savage, virulent, a powerful old man, who did more perhaps than we give him credit for to localise diseases which had been considered general; to get rid of what he hated in medicine, *ontology*, and substitute local *irritation* for its ideal diseases, especially to recognise inflammation of a mucous membrane in the place of essential fever.

Of Louis and the numerical system I could say much. He was my loved and honoured instructor, and has had a great effect on the medical science of this country through his numerous American students. But I prefer to leave too tempting a subject, only saying this, that the numerical system can teach a wise and honest and diligent man a great deal, and that it can make a foolish, dishonest, careless man a greater fool, impostor, blunderer, than nature ever intended him to be.

In touching upon the subject of homœopathy I shall find it hard to be very ill-natured. For it so happened that once, on the occasion of delivering a literary lecture, I found myself unexpectedly assigned to the hospitality of a homœopathic practitioner. If my host had consigned me to a chamber in one corner of a compartment of a hollowed out mustard-seed; if he had offered me the ten-millionth dilution of a drop of coffee on a globule of sugar of milk, and a microscopic fragment of a muscular fibril, with a fraction of a starch cell, and a smell at a pat of oleo-margarine, I might have felt as a patient ought to feel who has been insulted with pharmaceutical infinitesimals equally preposterous and absurd. But I was courteously treated and handsomely entertained, and in remembrance of that open door and soft bed and well-spread table I will try to speak of homœopathy, not exactly as Izaak Walton says the angler should treat his frog, "as if he loved him," but at least as kindly as frogs are treated in our physiological laboratory.

The only excuse I can offer for devoting any time to the subject is the fact that it has a certain hold on the community, that it has organisations and institutions which present themselves to the medical student as having a better doctrine and a more effective treatment than what it is pleased to call "the old school," for which "old school" Hahnemann invented the nickname, sometimes used by those who ought to know better, of "allopathy." I require this excuse for introducing the subject, for homœopathy has no *status* among the biological sciences, and has nothing of any practical value, so far as I know, to offer the medical profession. It began by promising to prevent scarlet fever, which it miserably fails to do, and from that day to this it has been a romance of idle promises slipping through the fingers like quicksilver, evaporating without residue like ether from the palm of the hand. If any one of these promises had been fulfilled, if any single remedy brought forward by homœopathy had proved trustworthy and efficacious, it would have been thankfully accepted by the medical profession, which welcomes every method of help unless it shows itself with false pretences, and even then will appropriate any fraction of truth which underlies the deception or delusion. *Sanabilia sanantibus curantur.* If a drug is proved to be a remedy for any disease or symptom, it is no objection to it that it is capable of producing similar symptoms in a healthy person. It seems to be forgotten that the Materica Medica has long recognised a class of remedies under the name of *alterants* or *alteratives*. Under this general head every so-called homœopathic remedy would find its place if any proved really valuable. We might expect that half a century of experience would have something tangible to show for itself.

Forty years ago I delivered and published a lecture entitled "Homœopathy and its Kindred Delusions." The three dogmas with which I had chiefly to deal were these: I quote from the lecture as published during the year of its delivery:—

1. "The one great doctrine which constitutes the basis of homœopathy as a system is expressed by the Latin aphorism, 'Similia similibus curantur,' or *like* cures *like*; that is, diseases are cured by agents capable of producing symptoms resembling those found in the disease under treatment."

2. "The second great fact which Hahnemann professes to have established is the *efficacy of medicinal substances reduced to a wonderful degree of minuteness or dilution.* The dilution of the original millionth of a grain of medicine contained in the grain of powder operated on is carried successively to the billionth, trillionth, quadrillionth, quintillionth, and very often much higher fractional divisions. A dose of any of these medicines is a minute fraction of a drop, obtained by moistening with them one or more little globules of sugar, of which Hahnemann says it takes about two hundred to weigh a grain."

3. "The third great doctrine of Hahnemann is the following: *Seven-eighths at least of all chronic diseases* are produced by the existence in the system of that infectious disorder known in the language of science by the appellation of PSORA, but to the less refined portion of the community by the name of ITCH." "PSORA is the sole true and fundamental cause that produces all the other countless forms of disease, which, under the names of nervous debility, hysteria, hypochondriasis, insanity, melancholy, idiocy, madness, epilepsy, and spasms of all kinds, softening of the bones, or rickets, scoliosis and cyphosis, caries, cancer, fungus hæmatodes, gout, yellow jaundice, and cyanosis, dropsy, gastralgia, epistaxis, hæmoptysis, asthma, and suppuration of the lungs, megrim, deafness, cataract, and amaurosis, paralysis, loss of sense, pains of every kind, etc., appear in our pathology as so many peculiar, distinct, and independent diseases." Can you believe that I am not imposing on your credulity when I say that I translate these words literally from Jourdain's French version of Hahnemann's "Organon"?

What has become of the first of these three dogmas? The "Encyclopædia Britannica," in its twelfth volume, published in 1881, quotes the following confession from a homœopathic journal called the *Medical Investigator*, of the date of 1876:—"How many claiming to be homœopaths are daily disregarding the law of *similia!* It is getting to be quite a rare thing to hear of a homœopathic practitioner conducting a serious case from beginning to end without using as such cathartics, sudorifics, diuretics, etc., in direct opposition to our law; not only are these drugs used in this way, but there are some also go so far as to say that they cannot be dispensed with"

As to the second grand principle announced by Hahnemann, there is abundant evidence that many, if not most, homœopathic practitioners make use of various remedies in their ordinary doses. I have had interesting revelations of this kind from my friend the late Dr. Edward Hammond Clarke. But I was hardly prepared for the statement of Dr. Wilde, Vice-President of the British Homœopathic Medical Society, that "although many believe that the action of the infinitesimal in nature can be demonstrated, its use in medicine is practically by a large number in this country all but abandoned."

The discovery of the *Acarus scabiei*, the little insect which proves to be the true cause of itch, has sufficiently disposed of the third of the homœopathic dogmas which I passed under consideration in 1842.

What there is left of a three-legged stool after one of its legs is pulled out, and the other two are sawed half or three-quarters through, seems hardly worth sitting down upon.

So far as I can take account of the stock, the present assets of homœopathy consist of a pleasing and sonorous designation, a nomenclature of symptoms, with sets of little phials containing globules, which are the prettiest and most fascinating of amulets, arranged to correspond with the nomenclature, a collection of "provings" which prove more about the prover than about the questions to be proved, and a doctrine which slips on or off like a kid glove, according to the company in which the practitioner finds himself. Why homœopathy should have so much popular currency in this country as compared with the land of its birth, or with Great Britain, is a curious question. It has been attributed to the state of medical education, but it might be found, I suspect, to be in intimate relations with another very interesting matter, too delicate for me to meddle with here, namely, the potential influence in our community of the imaginative sex, and its psycho-biological leaders and followers.

A few words with reference to Hahnemann, whose vagaries still lie in the way, to be stumbled over by here and there one whose mental twist or imperfect scientific training has betrayed him into the misfortune of taking the wrong direction.

Hahnemann was not an ignoramus, by any means, but something a great deal worse. He was a hopeless subject of cerebral strabismus, beyond all medical, all surgical, treatment. A squinting eye can be set right, but a squinting brain is too much for the art of gods or men. Whether the strabismus involved the moral as well as the mental faculties of Hahnemann, I will not stop to discuss. But when a man misinterprets all that he reads; when he borrows the most foolish things from the most foolish or erratic writers that he can possibly get hold of, then the less he knows about books the better. In mentioning the authorities from whom Hahnemann probably borrowed his two best known dogmas, I do not mean to say that doctrines originating from unworthy sources *may* not be worthy of confidence. A rogue may have good money in his pocket; but his bills are more likely to be counterfeit than those carried by an honest man.

We know well enough what a braggart and pretender was Bombastus von Hohenheim, who called himself Paracelsus. Even his defenders would recognise him as the very type of the swaggering boasters who profess to work miracles by their wonderful skill and knowledge. Those who are curious will find the distinct statement of the *similia similibus* doctrine in his words quoted in an article in a recent volume of the "Encyclopædia Britannica." Whether Hahnemann borrowed it from Paracelsus or not is of no very great consequence, but it is just the kind of hint a shrewd system-maker would be like to find in just the kind of author he would be like to be searching; and its source lays it open to suspicion.

The history of the probable origin of the infinitesimal medication is more interesting, and, so far as my limited reading has extended, has not been unearthed until I happened to strike the burrow the doctrine is likely to have come from.

I chanced to be looking through the "Ortus Medicinæ" of Van Helmont about a year ago, reading here and there as the titles of the chapters attracted me more or less. It was the Elzevir edition of 1652, and had stood on my shelves for many years. Among such titles of chapters as *Vita Humanum* and *Vis Magnetica*, I noticed one with this odd-looking prefix: BUTLER.

I found this was the name of an individual, an Hibernian, a great personage formerly, as he represented, at the Court of King James the First of England. At present, however, this distinguished stranger was provided with lodgings at the public expense in the gaol of Vilvoorden, a town of Belgium. Here it was that Van Helmont, a very credulous, very whimsical man of genius, a believer in the sympathetic ointment and other nonsense of the kind, became acquainted with the distinguished stranger, who bore the family name of the Duke of Ormond. This captive wrought some wonderful cures, which Van Helmont reports. The first case was that of a monk suffering from erysipelas. The Irishman dipped a certain pebble quickly into a teaspoonful of oil of almonds and instantly withdrew it. The patient took the oil, or some of it, and was cured at once. Second Case: A washerwoman: complaint, hemicrania. He dipped the same pebble quickly into a teaspoonful of olive oil, gave it a lick with his tongue, and put it back in his waistcoat pocket. He poured that teaspoonful of oil into a small vessel of oil. One drop of this to be rubbed on the old woman's head. Immediate and permanent cure. Stupefied astonishment of Van Helmont: to whom the son of Erin—"My darling, if you don't get on so far that you can cure any disease with a single remedy you will remain a greenhorn (*in tyrocinio*) till you are a greybeard." The next patient was a nobleman; a bad case of gout, as it would seem. He was to touch the pebble every morning with the tip of his tongue, wash the lame parts with a cheap lotion prepared in the laboratory of nature, and be well in three weeks. "If he will make me well," says the Count, "I will pay him his own price, and deposit it so that he shall be sure of it." Our friend with the pebble takes this in high dudgeon: will never help the miserable creature; does not want his money; is as good as he is. Van Helmont could not prevail on him to treat the case, and became sceptical. But not long afterwards a fat friend of his wanted to be rid of his obesity. Butler gives him a small fragment of the pebble, which he is to lick once, or touch swiftly with the tip of his tongue every morning. In three weeks he was a span narrower around his thorax. Van Helmont begins to have faith again, and being himself ill, as he thinks from poison, sends a flask of oil to Butler, who is still in gaol, and who dips his pebble in it. One drop to be applied externally in one or more places. Entire failure of relief. Sceptical once more, —our inquiring philosopher. But, next, his wife is relieved of a dropsical swelling, and a servant-maid of an ill-cured erysipelas, and a widow of a stiff arm, all by one or more drops of the oil, and an abbess of loss of power in her right arm by only touching her tongue to the pebble. "Then I asked Butler," says Van Helmont, "why so many women were cured at once, while I, at sword's point with death, and full of pains in all my joints and organs, got not the slightest relief." The Irishman gave a plausible answer, which silenced if it did not satisfy the learned simpleton.

The essence of the infinitesimal doctrine is in this most curious chapter of the "Ortus Medicinæ," which is well worth reading. Hahnemann mentions the name of Van Helmont in his "Organon," and I have little doubt that he borrowed his infinitesimal doses, smelling of remedies, and other inventions, from this chapter. And though such an origin does not prove their falsity or worthlessness, yet we are less disposed to yield our confidence to the pretensions which can be traced to the paternity of so questionable a personage as this exile of Erin.

Van Helmont, I may add, entirely anticipated Hahnemann in insisting upon the use of simple uncompounded remedies. "I believe," he says, "that simple remedies, in their simplicity, are equal to the cure of all diseases." "And consequently," he adds, "the dispensaries, wishing to compound and correct many ingredients, lose everything, and by a hidden blasphemy, as it were, undertake to supply the divine insufficiency."

Where Hahnemann got his third great dogma, that itch is the cause of seven-eighths of chronic diseases, I do not know, but I notice that Van Helmont has a good deal to say about that disease, from which he himself suffered for some months, and what he says may very probably have set Hahnemann thinking about it.

If homœopathy has made any valuable contribution to therapeutics, of which I do not see the evidence; if it has been of indirect service, like the Unguentum Armarium and the Sympathetic Powder, in showing the public what professional men of common sense have always known, that most diseases can get well without active interference, it has done a vast amount of harm in another direction. I have in my possession one of those foolish little cases of little phials of minute pellets—homœopathic amulets—formerly belonging to a friend, now deceased. One at least of its amulet-holders has been largely drawn upon. Its owner watched himself for symptoms, and attacked each as it appeared with what his book told him was its specific. What is the consequence of this daily and hourly self-inspection by all the nervous and crotchetty owners of these

little seed-capsules of hypochondriasis? They think themselves in every morbid condition they can find a name and a pellet for. These petty engines of great mischief stimulate into consciousness the very symptoms they pretend to subdue, like the rider displaying his horsemanship—

> While his left heel insidiously aside
> Provokes the caper that he seems to chide.

It is a serious charge to bring, but I appeal to those who know the history of these cartridge-boxes charged with imaginary maladies, to say if they have not called into and kept in existence an army of professional invalids.

There are *malades imaginatives* as well as *malades imaginaires*. Such are many of those who have recourse to the globule-box as their fetish. The same class of persons—usually, however, in a somewhat different social sphere—have confidence in, and are fond of consulting, the *quasi*-supernatural practitioners. A patient of my acquaintance, who died not very long ago while under the care of a homœopathic practitioner, was urged by some who were about her to call in a clairvoyant female. Why not? Would the disciple of Hahnemann have refused to consult with the seeress?

There is little to be done with the *malades imaginaires*; there is nothing to be done with the *malades imaginatives*. All plausible, large-promising false doctrines seize, like epidemics, on their pedestined, because predisposed, victims. You will lose a patient now and then to a homœopathist or a clairvoyant; they go where they belong. "Ephraim is joined to idols; let him alone." But do not allow yourself to believe because this new country is the favourite breeding-place of Mormonism, of Homœopathy, of Clairvoyance, that polygamy is going to break up the sanctities of the American household, or the fancy practitioner displace the educated, scientific, rational physician in the abiding confidence of the great American public.

The other pseudo-scientific excrescences growing from the body medical are the systems belonging to the so-called *Eclectics* and to the *Clairvoyants*. After these come the advertising philanthropists who conduct "medical institutes," and who leave their doors ajar like the covers of so many box-traps.

The Eclectics are the lineal descendants and heirs of the Thomsonians of a past generation, whose botany, as Professor Asa Gray informs me, included not only *lobelia*, but also "*high*belia." The eclectic writers and teachers seem to be a sort of half-armed medical militia, of the class that spells inflammation with one *m*, and whiskey without the *e* in the last syllable. I do not suppose their practice differs very much from that of those whom we call regular physicians. One of their "professors," who recently left the eclectic for the regular ranks of the profession, gives as his reasons that the original and cardinal doctrines of the eclectic school—opposition to bloodletting and certain mineral remedies on the one hand, and the use of various new remedies on the other,—have been largely adopted by the regular school of medicine. Whatever credit belongs to Samuel Thomson and his successors, the eclectics, let us not deny them. But the real change of medical practice, so far as it can be traced to any individual sources, may with a good show of reason be laid at the door of such teaching as that of Louis on blood-letting, of Dr. Jacob Bigelow "On Self-Limited Diseases," and of Sir John Forbes's "Nature and Art in Disease."

As to the Clairvoyants, it seems probable that more patients consult them than we are aware of. Persons who carry horse-chestnuts about with them to keep off rheumatism do not care to have their pockets turned inside out before their neighbours and friends. So the patients of the wise women who see into simpletons, and are seen into by persons of ordinary sagacity, are shy, it may be suspected, of openly entering the sibyl's cave, and follow the example of Nicodemus, the same who came by night to visit his Master.

Do not let the existence of these outgrowths of science disturb your equanimity. The largest and most sensible part of all educated communities will always choose its physicians among those who have the highest mental and personal character, with the most complete training, and who are sure to find each other out, and stand united as what we know as the regular medical profession.

The public can form a tolerable opinion of its physicians—of such men as the late Dr. James Jackson, Dr. Jacob Bigelow, Dr. John Ware, Dr. Edward Hammond Clarke. This is the kind of men in whom the best part of the community always did and always will put its trust.

Of medical theories and practice the community is not a competent judge. Listen to the immortal sentence which stands first among the Aphorisms of the Father of Medicine:

"Life is short, art is long, opportunity is fleeting, experience is deceptive, judgment is difficult."

If experience is deceptive for the trained practitioner, if a decisive opinion in cases of disease is difficult for him, of what value are the experiences and conclusions of wholly untrained individuals?

Any remedy, any plan of treatment, no matter what it may be—by rain-water, by Butler's pebble, by homœopathic globules,—which can get itself tried by a thousand persons, will be sure of formidable evidence, or what seems like it, in its favour. Of the thousand patients, nine hundred, we may say, will certainly get well, however they are treated. One hundred will begin taking the remedy somewhere near the time when they were to become convalescent. Fifty, or twenty, if you will, will happen to find themselves almost immediately relieved after taking the remedy or beginning the plan of treatment, and this on the supposition that the remedy is absolutely without virtue, and has nothing to do with the cure. How can you argue with these fifty or twenty people? They answer exactly in the same way with the blind man restored to sight, told of in the Gospel of St. John. Whether this be a quack remedy or no, I know not; one thing I know, that whereas I was sick, now I am well. And this argument, utterly fallacious as proof, will prove a sure defence to every form of quackery until the end of time. The underlying fact is that the great proportion of diseases tend to get well spontaneously, and a considerable crop of striking coincidences, looking like cause and effect, will spring up in any large field where any alleged remedy has been sowed broadcast.

Homœopathy, like every other system, true and false alike, has the advantage of this kind of deceptive evidence. The best thing it has effected has been to diminish the quantity of odiously smelling and tasting drugs with which patients, especially children, who could not help themselves, were by too many old-fashioned practitioners often unnecessarily dosed. This one good influence we may in some measure, at least, attribute to the inoffensive, inert, utterly useless "globules," having all the virtues a man can give them, and no others. Not the less is homœopathy a system of false pretences. Who had not rather see "Little Jack Horner" and similar myths in the nursery than books like the *Newgate Calendar*, full of true stories which would frighten the poor children out of their senses? But if a man comes along professing to teach history on the basis of Mother Goose; if he alleges as a scientific fact that a man did really scratch out his eyes by jumping into one bush, and did really scratch them in again by jumping into another similar bush, and takes this fact for the corner-stone of ophthalmic surgery, I do not think the professors of Harvard University would feel themselves called upon to recognise him as a scientific and professional fellow-worker.

Again, we must not deny that there is such a thing as the *faith-cure* quite independent of any special Divine intervention. Every form of medical imposture can show such cures, for the imagination is a very powerful physiological agent. They are numerous just according to the impressibility and the credulity of the class to which the impostor appeals. Women are oftener cured than men; nervous diseases oftener than others; peasants oftener than princes; poets oftener than men of science; clergymen more frequently than lawyers; Catholics are more favoured than Protestants (see the "collection of crutches" at Mount Ste. Anne figured in the *Century* for May). Such are the incidental good effects which the worst cheat who ever sold rain-water as a precious remedy for all evils may challenge as the result of his mendacity and impudence.

Let me illuminate the closing passages of my lecture with some words from three great authorities, whose names will add weight to its utterances:—

"Whatever efforts," says Cuvier, "have been made in the course of long ages by the men of genius who have practised medicine, none of the doctrines which they have proposed under this name [medical theory] has obtained lasting assent. Young persons adopt them, each time as they come up, with

enthusiasm, because they seem to abridge study, and furnish the clue to an almost inextricable labyrinth; but the briefest experience disabuses them."(b)

And Helmholtz says, speaking of old theories, "If I were called upon to designate in one word the fundamental error of that former time, I should be inclined to say that it pursued a false ideal of science in a one-sided and erroneous reverence for the deductive method."

No, gentlemen, there is no exclusive *à priori* method which leads to the successful treatment of disease. You begin in the primrose paths of knowledge, which are only preliminary to your real work. Anatomy is no more medicine than a child's dissected alphabet is literature. Physiology and chemistry throw gleams of light here and there on curative methods, but are apt to lead their votaries far away from practice. Pathological anatomy teaches a great deal, but it is, after all, like inspecting what is left of the fireworks on the morning of July 5. It is very pleasant to dissect a muscle, to make a precipitate, to watch a contracting heart, to study a translucent slice of a healthy or diseased organ. These pursuits, sisters of her who presides over health and disease, are the sirens that won over Agassiz and Huxley and Helmholtz to their flowery realms. But just as zoology, chemistry, physiology, histology, are not the science of medicine, so neither is the science of medicine the same thing as the art of healing. To go hastily from the library of old books and the laboratory of new experiments to the bedside of disease is imitating the presumption of those rash profligates who, as Thomas Boston says, think they can take a "leap out of Delilah's lap into Abraham's bosom."

The medical student is in little danger now from the old theories which blinded the eyes of observers in former ages. He is more likely to forget his practical work,—which means giving his whole thought to the lesser as well as the greater needs of his patient, to all the little details of the sick-room, —in the fascinating pursuit of his scientific investigations. I would not undervalue the branch I teach. I recognise the incidental importance of all the subsidiary branches which form a part of the curriculum of this and other schools. Do full justice to them, or you will not probably do justice to your more immediately practical studies. But your hardest study must be at the bedside. Your real business will be to save life, to avert disease, to manage it so far as manageable, to save your patients all unnecessary suffering. And so doing may each of you be able to repeat the noble words of Thomas Sydenham, with which I will close this lecture. Two hundred years have passed since they were written, and they still speak in accents that can never grow old:—

"And, in truth, when I come to die, I trust I shall have the satisfaction of being inwardly assured that I have not only endeavoured with the utmost diligence and integrity to recover the health of all those who have been my patients, of whatever rank or condition they were, none of whom have been otherwise treated by me than I desire to be, if I should be seized by the same distempers; but also that I have contributed, to the utmost of my abilities, that the cure of diseases might, if possible, be prosecuted with greater certainty after my decease; being of opinion that any accession to this kind of knowledge, though it should teach nothing more pompous than the cure of the toothache, or corns, is of much greater value than all the vain parade of refinements in theory, and a knowledge of trifles, which are perhaps of as little service to a physician in removing diseases, as skill in music is to an architect in building."

Carbolic Acid in Piles.—Dr. Gill, in a monthly report of the Southern Illinois Penitentiary, says:—"There have been more than a dozen cases of piles treated by carbolic acid injections. Many of them were of years' standing, and they now, even the worst, declare themselves entirely cured. The amount of acid injected was from five to ten minims, dependent upon the size of the tumour. The acid used was the crystallised, with just enough glycerine to hold it in solution. The operation was performed slowly, and the needle slowly withdrawn. The course has been mild in most cases, and the results have been entirely satisfactory."—*New York Med. Record*, July 29.

(b) "Hist. des Prog. des Sc. Nat.," i. 150.

ORIGINAL COMMUNICATIONS.

THE CAUSES OF TINNITUS AURIUM.

By P. McBRIDE, M.D., F.R.C.P.E.

(*Concluded from page* 244.)

Increased intra-labyrinthine tension can hardly in itself be a cause of continued tinnitus, for, as Dr. Woakes(a) points out, pressure sufficient to cause mechanical stimulation would soon lead to atrophy and disintegration. Besides, we have now reason to believe, from the experiments of Bezold,(b) that in obstruction of the Eustachian tube—the condition which was, *par excellence*, supposed to cause increased tension of the perilymph—the tension is really diminished. On the other hand, we know that anchylosis of the stapes and shortening of the tensor tympani are also possible causes of tinnitus, and there is every probability that in such cases the intra-labyrinthine tension is increased. I believe, then, that any change of tension in the fluid of the internal ear will favour the production of tinnitus—probably by making the pulsations of the labyrinthine vessels perceived. The latter are not noticed during health, but let any change occur—be it in the balance of peri- and endo-lymph, in the calibre of the vessels, or the rapidity of the circulation,—and the case is different. For instance, alcohol may produce tinnitus by increasing the force of the circulation. Noises in the head frequently precede a fainting fit; while, as we shall see further on, the same symptom is produced alike by drugs which dilate, and by those which probably contract, the vessels of the encephalon. A parallel case is the heart-beat, which is not felt under ordinary circumstances, but becomes excessively disagreeable when either abnormally weak or strong.

Dr. Weil,(c) of Stuttgart, has noticed that certain forms of tinnitus can be temporarily cured by blowing upon the walls of the meatus; while Turck effected the same object by pressure on the superior cervical vertebra and mastoid process. This result the former ascribes to stimulation of the sympathetic, for during the process (blowing) the pupils dilate, and he very naturally draws the conclusion that those forms of tinnitus which can be thus relieved are due to vascular conditions. In some cases the nature of the subjective phenomena gives a clue to their etiology. Thus, if a beating or hammering sound synchronous with the pulse be heard, its cause may be sought in arterial pulsation. Again, many rushing sounds are due to the venous circulation. In Meniere's disease and in primary affection of the cochlea we may, I think, assume that the subjective auditory sensations are in a great measure due to vascular changes in the labyrinth.

Where fluid is present in the tympanum the patient may experience splashing or bubbling sounds, and even have the sensation of liquid moving in the ear.(d) Some persons have the power of producing a clicking sound, which is also audible to others. Sometimes it is so loud that it can be heard by the observer at some distance. It somewhat resembles the sound made by clicking the nails together, and occasionally occurs involuntarily, thus causing much annoyance. Spasmodic action of the palate muscles, and sometimes of the tensor tympani, are the causes to which this symptom is ascribed.

Occasionally, although seldom, noises in the head are complained of by patients who are the subjects of chronic middle-ear suppuration. In these cases the symptom is due to physical conditions similar to those which have been already described, the most common being pressure against the fenestræ produced by the exudation.

So much for those forms of tinnitus which are due to conditions of a part that is studied more by the specialist than by the general practitioner.

We now come to a consideration of those causes of noises in the head which are interesting alike to the aural surgeon and to the physician.

It seems to be the generally accepted opinion of authors that tinnitus may be due to peripheral stimulation of sensory

(a) "Deafness, Giddiness, and Noises in the Head."
(b) *Archiv für Ohrenheilkunde*, xvi.
(c) *Monatsschr. f. Ohr.-Heilk. Kunde*, November, 1881.
(d) Burnett on the Ear, page 430.

nerves other than the auditory—in fact, the result of a radiated impression. There are other clinical facts which tend to confirm this view, such as the pain experienced in some cases of asthenopia in which a transference of impression probably occurs from the optic to the fifth nerve. In megrim we frequently meet with disturbance of vision, probably due to central causes, and less frequently deafness and tinnitus aurium,(e) showing that there is a tendency for an impression to be propagated from the auditory centre to that corresponding to the origin of the fifth nerve. Indeed, Poincaré(f) assumes the existence of such a relation to account for the symptoms of pain manifested by animals when the auditory nerve is directly stimulated. Subjective auditory phenomena are found in some cases to be due to the presence of diseased teeth. Wolf observed tinnitus aurium as a result of acute glaucoma, and Weber Liel(g) has traced this symptom to a neurosis of the cervical plexus. Intracranial tumours may cause deafness and tinnitus either by direct pressure upon the auditory nerve or by obstructing the labyrinthine circulation. As observers in medicine have not paid much attention to subjective auditory phenomena, we generally find the symptom either classed with deafness and included under the head of disturbance of hearing, or else, if tinnitus be mentioned, it is only casually alluded to. From what we know of the auditory nerve and labyrinth, however, I think we may conclude that in most cases of deafness due to the presence of a cerebral tumour, tinnitus is likely to occur in the course of the disease.

According to Calmeil,(h) one-ninth of all cases of brain-tumour are accompanied by disordered hearing. Ladame(h) analysed a number of cases, paying attention to the presence of auditory disturbance, and his results were as follows :—

Number of cases.	Situation of tumour.	No. of cases of auditory disturbance.
77	Cerebellar	7
26	Pons	7
27	Middle lobes	3
27	Anterior lobes	0
14	Posterior lobes	0
4	Fourth ventricle	0

According to Bernhardt,(i) one of the most recent writers on cerebral tumours, the cases collected by him gave the following results. In tumours affecting the corpora striata, optic thalami, and crura cerebri, the hearing power did not suffer; while in those situated in the cortex, aural symptoms occurred twice in fifty-seven cases. In neoplasms of the cerebral lobes, diminished hearing power or subjective aural phenomena (either on the side of the tumour or on the opposite side) seem to have occurred in about one-eleventh of all cases. Where the growth involved the corpora quadrigemina and pineal gland, out of ten cases there was once partial and once complete deafness, while in one case tinnitus was the most prominent symptom.

In tumours of the pons, nearly one-half produced ear-symptoms. To translate the author's words, "Generally hearing was diminished on the side corresponding to the tumour, or it was disturbed by tinnitus. Rarely was there absolute deafness. At the same time the fact must not be lost sight of, that in several cases pathological changes were noticed in the immediate neighbourhood of the pons, and that the auditory nerve was in one case directly pressed upon."

In tumour of the cerebellum, Bernhardt states that auditory disturbance is very frequently present when one of the hemispheres is the seat of disease. Tinnitus and a degree of deafness are commonly met with. Where the morbid growth was situated in the medulla deafness and tinnitus were present four times in eighteen cases.

We shall next consider pathological conditions of the vessels in the neighbourhood of the ear as a cause of noises in the head, which in these cases are sometimes audible to the observer as well as to the patient. Chemani(k) has recorded a case in which constant and annoying tinnitus was due to a cirsoid aneurism of the auricle, and relieved by its cure. Hutchinson has described a case of aneurism of the common carotid, which had become cured by coagulation. Tinnitus, audible alike to the patient and physician, lasted for a long time afterwards. Aneurismal dilatation of the occipital, temporal, and posterior auricular arteries may also occur. A very interesting case, in which the last-named artery was affected, and severe pulsating tinnitus was one of the most annoying symptoms, was observed by Herzog.(l) The pulsating tumour in this case lay over the mastoid process, and, when auscultated, yielded a bruit similar to that heard by the patient.

Lebert,(m) in his classical papers on intracranial aneurism, writes :—"Of the greatest interest are disorders of hearing, but we cannot always ascertain in what proportion they are due to changes in the auditory nerve itself or its nucleus, and to what extent the small internal auditory artery, which is for the most part hidden from ordinary observation, by becoming obliterated contributes to the result. Tinnitus, impairment of hearing, partial deafness on one side, becoming complete, and at a later stage bilateral, or even bilateral from the beginning, are the symptoms which have been observed. The observations are unfortunately not always complete, *i.e.*, deafness and unilateral deafness are not sufficiently differentiated—which is surely an important point.

"These phenomena are rare where the carotid system is involved. Only once did deafness occur in an aneurism of the posterior communicating artery; once there was deafness and tinnitus in aneurism of the anterior cerebral. Where the middle cerebral was involved, tinnitus was frequently observed, but without deafness.

"On the other hand, there was present in no less than six cases of aneurism of the basilar artery deafness, which came on rapidly and was accompanied by tinnitus. As a large number of these cases only came under observation after an apoplectic seizure had occurred, it is fair to assume that auditory phenomena occur even oftener. Disturbance of hearing may, then, under some circumstances become an important element in the diagnosis of basilar aneurism."

In an elaborate article on pulsating exophthalmos, Sattler(n) mentions beating and rushing sounds in the head as a frequent and very troublesome symptom. So loud is the sound at times, that, without being deaf in the true sense of the word, patients have difficulty in distinguishing other sounds. Compression of the common carotid generally stops the distressing noise temporarily. Usually the murmur can be heard by placing the stethoscope over any part of the side of the head, although it is loudest over the orbit. In these cases of exophthalmos the condition is often due to injury, and after death, aneurism of the ophthalmic artery, aneurism by anastomosis between the carotid artery and cavernous sinus, and thrombosis of the latter, have been found. In one case, after an injury the pulsating exophthalmos only appeared occasionally, the eyeball being perfectly normal in the intervals. Vaso-motor paralysis of the orbital vessels was the diagnosis arrived at by a process of exclusion.

A very interesting case of tinnitus, audible by means of the stethoscope, and eventually accompanied by exophthalmos, was recorded by Dr. Poorten,(o) of Riga, in 1878. In every case of tinnitus, however, where the symptom is due to an arterial bruit, and where the latter can be heard on auscultation, we are not entitled to make the diagnosis of aneurism. In 1854, Rayer(p) called attention to a case of unilateral pulsating tinnitus, audible to the auscultator, which temporarily ceased on compression of the post-auricular artery. No aneurism or heart-disease was present. In an interesting paper on arterial murmur, Dr. Richardson(q) described several cases of bruit in the neighbourhood of the ear, in which tinnitus was a prominent symptom, and yet no aneurism existed. In one patient general treatment effected a complete cure. A similar case was described by Mr. Fitzgerald(r) at the Otological Section of the International Congress of last year. He also mentioned a case of audible tinnitus occurring on one side only in a chlorotic girl. A

(e) Bristowe, "Practice of Medicine," Megrim.
(f) "Phys. de Syst. Nerv."
(g) "Lehrbuch der Ohrenheilkunde" (Urbantschitsch), page 486.
(h) "Pathologische Anatomie des Ohres," Schwartze; and Ladame, "Symptomatologie und Diagnostik der Hirngeschwülste."
(i) "Beiträge zür Sympt. und Diagnost. der Hirngeschwülste," Berlin, 1881.
(k) Von Troeltsch, "Lehrbuch der Ohrenkeilkunde," page 561.
(l) *Monatsschrift für Ohrenheilkunde*, August and September, 1881.
(m) *Berlin. klin. Wochenschrift*, 1866, page 347.
(n) "Handbuch der Gesammten Augenheilkunde," Graefe und Saemisch.
(o) *Monatsschrift für Ohrenheilkunde*, 1878, Nr. 4.
(p) Von Troeltsch, "Lehrbuch der Ohrenheilkunde."
(q) *Medical Times and Gaz.*, 1867, page 442. (r) *Transactions.*

relaxed condition of the arterial walls, or a watery condition of the blood—perhaps both together—might in such cases account for the bruit. It is somewhat more difficult, however, to explain the phenomenon being unilateral. As possible causes one would naturally think of abnormally distributed vessels or disproportion between the carotid canal in the temporal bone and the calibre of the artery. A limited vaso-motor change, too, must be considered within the bounds of possibility. Whatever be the explanation, the clinical fact remains, that such unilateral murmurs in the neighbourhood of the ear, giving rise to the most distressing tinnitus, may exist without any organic vascular disease, and disappear under suitable treatment.

Dr. Charles Burnett(s) has described several cases of tinnitus aurium accompanied by other evidence of vaso-motor weakness, such as flushing of the face and upper part of the body. In one patient there was flushing of the side of the face corresponding to the ear in which the subjective phenomenon was most marked.

In some rare cases of heart-disease the cardiac murmur is audible to the patient, as observed by Dr. Walshe.(t) It has already been suggested that, although in health the labyrinthine circulation is not perceived, yet when the normal physical conditions are in any way changed or modified, subjective sensations of sound are the result. In discussing this aspect of our subject it seems necessary to take into consideration—

1. The condition of the bloodvessels.
2. The rapidity of the circulation.
3. The quality of the blood.

According to Dr. Costa,(u) cerebral anæmia and hyperæmia are alike liable to cause tinnitus aurium. The same author,(v) in a paper on the nervous symptoms of lithæmia, alludes to noises in the ears and deafness as occurring occasionally. He has also observed defects of vision in which the ophthalmoscope revealed congestion of the retina. It seems therefore fair to assume that where auditory phenomena exist they are also due to a hyperæmic condition of the internal ear. Murchison(x) has also described pulsating and humming tinnitus as of common occurrence in both true gout and lithæmia. Quinine and salicylate of soda have until recently been supposed to produce their physiological effects by causing dilatation of the cephalic vessels, and this hypothesis has derived more or less confirmation from the observations of Graefe, Roosa, and Kirchner.

Roosa(y) noticed, after a moderately large dose of quinine, pinkness of the papillæ and increased calibre of the vessels of the drum membrane. While not pretending to any familiarity with the use of the ophthalmoscope, I may be allowed to suggest that the presence of a pinkish tinge in the disc is hardly sufficient evidence. Had it been stated that vessels became apparent, which before administration of the drug were invisible, the case would be different. It is also well known that several examinations of a healthy meatus by means of a speculum are apt to produce temporary hyperæmia of the tympanic membrane.

Kirchner(z) fed animals on quinine and salicylate of soda, and found on post-mortem examination congestion of the middle ear and labyrinth. We do not yet know how quinine and salicylate produce death, so that in those animals which died from the effects of the drugs the pathological conditions described may have been due to some change occurring during the agony; whereas the same argument applies with perhaps greater force to those whose existence was terminated by violence. On the other hand, Grunning, Michel,(a) and Knapp have described cases of quinine amblyopia in which the disc was in a state of almost perfect anæmia, the vessels being hardly perceptible.

Unless we are prepared to attribute to quinine the power of acting upon two separate vaso-motor areas in a diametrically opposite manner, we must, I think, assume that both quinine and salicylate of soda(b) produce tinnitus aurium by diminishing the calibre of the labyrinthine vessels.

Nitrite of amyl, however, which, at least in some persons, produces ringing in the ears, apart from the audible pulsation of the carotids, causes hyperæmia of the retina, so much so that vessels invisible before the inhalation become afterwards well marked, as Deutschmann has observed.

Again, it is fair to assume that the vessels of the labyrinth share the dilating influence, and that in the action of nitrite of amyl, as well as in the tinnitus of lithæmia, increased calibre of the vessels of the internal ear is the cause of the symptom in question.

Mr. Field(c) mentions the increased arterial tension of Bright's disease as a common cause of tinnitus. Any obstruction in the venous circulation may produce it, as, for instance, the pressure of an enlarged gland or a tight collar(d) upon the veins of the neck. Woakes(e) mentions congestion of the portal system as a possible, if not frequent, cause.

Whether subjective auditory phenomena may not often arise from atheroma of the labyrinthine vessels is a question which requires for its elucidation further clinical research. We have already seen that alike increased and diminished action of the heart may produce the symptom in question, as exemplified by the occurrence of singing in the head after a moderate dose of alcohol, and as a premonitory symptom of syncope.

While believing that tinnitus aurium may be, and very often is, caused by murmurs originating in large vessels in the neighbourhood of the ear, it is yet difficult to avoid the conclusion that the labyrinthine circulation is more frequently the principal cause. This opinion is confirmed by recent observations on the cephalic bruit of anæmia by M. Tripier,(f) whose researches have been discussed and criticised by Dr. Gibson.(g)

From a perusal of Tripier's cases it will be seen that tinnitus was usually experienced by those patients in whom the stethoscope detected the cephalic murmur; but that the former generally disappeared before the bruit ceased to be audible to the auscultator. Through the kindness of Drs. Gibson, Brackenridge, and Dowie, I have been enabled to examine a number of patients in whom the cephalic bruit was present, and have found that the sound perceived by the patient is either rushing or hammering (venous or arterial). In some cases the tinnitus is only present after the patient has retired to rest, while the murmur can be detected in the upright postnre.

It seems, therefore, a justifiable conclusion from these facts that the tinnitus of anæmia is not altogether or even chiefly due to murmurs produced in the large vessels, but probably owes its origin to conditions affecting the circulation of the internal ear. Chlorosis is in all probability a much more common cause of this distressing symptom than is generally supposed. Indeed, in the comparatively few cases I have had an opportunity of examining, it was rarely absent.

In 1874, Dr. Moos, of Heidelberg,(h) relying on data derived chiefly from the post-mortem examination of a patient who was said during life to suffer from auditory hallucinations, and whose external auditory passages were filled with wax—a condition usually considered capable of producing tinnitus,—suggested that many cases of subjective auditory phenomena may be due to an abnormal condition of the jugular bulb, such as existed in this case. Rüdinger disputed these conclusions, and pointed out that the condition of the latter described by Moos was not uncommon.

In the light of our present knowledge of the cephalic murmur of anæmia, we should expect that where a sound loud enough to be heard by the patient is produced in the large vessels near the ear, it would also be audible by means of the stethoscope to the physicians.

As deductions from what has been said, I would suggest the following points:—

1. Hyperæsthesia of the auditory nerve, while it may be a predisposing cause of tinnitus, is never the direct exciting cause.

2. The ear should be examined in every case in which the cause of the symptom is doubtful.

3. While tinnitus may be caused by numerous and vary-

(s) *Archive of Ophthalmology and Otology and Diseases of the Ear*, page 291.
(t) "Diseases of the Heart," page 148.
(u) "Medical Diagnosis," page 70.
(v) *American Journal of Medical Sciences*, vol. lxxxii.
(x) *Lancet*, 1874, page 688. (y) "Diseases of the Ear," page 512.
(z) *Berlin. klin. Wochenschrift*, 1881, page 19.
(a) *Archiv für Augenheilkunde*, xi.
(b) Knapp found the same condition, anæmia of the retina, after a large administration of this drug.—*Graefe's Archiv*, xxvii.

(c) "Diseases of the Ear," chapter x v.
(d) Von Troltsch, "Lehrbuch der Ohrenheilkunde," page 531.
(e) *Op. cit.*, page 181. (f) *Revue de Médecine*, 1881.
(g) *Brit. Med. Journal*, January 21, 1882.
(h) *Archiv für Ophthalmologie und Otologie*, 1874.

ing conditions, yet the auto-perception through the auditory nerve of the labyrinthine circulation is a very common factor.

4. In certain cases an ophthalmoscopic examination may by analogy assist in determining whether the condition of the labyrinth be one of hyperæmia or anæmia.

5. The indications for treatment vary altogether according to the cause of the subjective phenomena.

AUTOMATIC TREATMENT OF CEREBRAL ANÆMIA.

By C. P. COOMBS, M.D. Lond.

About seven o'clock in the evening my assistant and I were called to a man, G. N., aged thirty-five, who had just sustained a severe loss of blood from a varicose vein in his calf. It was impossible to learn the amount which had been lost, but the symptoms showed that it had been as much as he could bear. His pulse was imperceptible, his breathing stertorous, and his pupils, usually small, were fully dilated. He was found sitting up in a chair; and as soon as possible was laid on a bed, and the vessel secured. Brandy and warm milk were administered, and other remedies used, with the result that the breathing improved, and the pulse became perceptible and stronger. The patient, at first perfectly unconscious and motionless, began to toss about, being with difficulty kept in bed. At last he curled himself up in such a position that his head hung over the edge of the bed, the lowest part of his body, and in that position he slept quietly. In an hour he recovered consciousness, and took food. His pupils grew smaller, and contracted with a bright light, very soon after he assumed his physiological position, and thus filled his cerebral vessels; and it is on this account that I have made these short notes of his case.

Castle Cary.

Excessive Mobility of the Uterus.—Grassi (*Lo Sperimentale*, January, 1882) thinks that this condition is much more frequent than is generally supposed, and is often mistaken for version. By itself, apart from other possibly coexisting alterations, it may give rise to manifold sufferings, which increase with the rapidity and extent of the motions to which the uterus is subjected. This mobility may be congenital, and may occur in nulliparæ, although it is usually due to laxity of the supports of the uterus attributable to one or more childbirths. In consequence of this condition, coition may become painful, conception be rendered more difficult, and pregnancy suffer interruption during the first three months. The treatment consists in toning up the system, hydrotherapeutics, etc., and the application of a well-fitting ring-pessary. The diagnosis is confirmed by the immediate benefit derived from the pessary.—*American Journal of Obstetrics*, July.

Silvester's Method in Drowning at Paris.—Dr. A. Voisin communicated to the Rochelle Congress (*Gaz. des Hop.*, September 5) the satisfactory results which have attended the great efforts made for some years past by the Paris Municipality to improve the treatment of drowned persons in that capital—efforts which Dr. Voisin has been the chief instrument in carrying out. He now reports the results which have been obtained:—1. The almost absolute certainty of restoring life to persons who have remained under water, or "between two waters," for a period varying from a few seconds to five minutes—no one formerly having been saved after three minutes' submersion. 2. He has succeeded in restoring to life persons who have remained under water from five to twenty minutes. 3. These results have been obtained in individuals not merely in a state of syncope, but in an asphyxiated state, as shown by their violaceous face and lips, their open mouth, and flaccid masseters. 4. These results have been gained in consequence of the excellent arrangements made for the rigorous carrying out of Silvester's method; the effectual application of warmth to the whole surface of the body by calorific generators; the ready access to warm baths and cold douches; the keeping the patient quietly in bed for some hours after his restoration; the whole system being administered by a well-trained and disciplined staff, which is kept in constant readiness.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

RANULA OCCUPYING THE WHOLE OF FLOOR OF THE MOUTH—RESECTION OF PART OF WALL—PLUGGING WITH LINT—CURE.

(Under the care of Mr. MORRIS.)

On October 15, 1874, Matilda L., aged forty, a married woman, residing at Herne Hill, applied at the Cancer Out-Patient Department for an affection of the mouth, which she had been given to understand was a cancer. On opening her mouth the first appearance gave the impression of a large tongue tied down to the floor of the buccal cavity in front, but which, owing to œdema, was bulging above the level of the lower teeth. On looking further into the mouth, however, the tongue itself was seen pushed upwards and backwards by a large mass, to which the tongue looked but as a small flap-like appendage. The tongue could be protruded out of the mouth at will. The mass, which proved to be an ordinary ranula of extraordinary size, had first shown itself ten months ago as a small bladder-like enlargement on one side of the frænum. This had continued to grow up to the time of her application to the hospital. At this time it occupied the whole floor of the mouth, pressed backwards the tongue, and reached higher than the teeth level; it was soft, but not fluctuating, and at one spot on the left side the surface of the mucous membrane was broken. This destruction of mucous membrane was such as might have been caused by the puncture of a nævus-needle, the edges of which puncture had subsequently ulcerated. There was no induration or tendency to fungate about them. There was no enlargement or hardening of the submaxillary or lingual glands, nor of any of the cervical lymphatic glands. The swelling gave no pain, but caused much discomfort by its size. A cut was made into it with blunt-pointed scissors, and after the contents were evacuated a small square-shaped piece of the wall of the cavity was cut away. The cavity was then stuffed with several long narrow slips of lint, some three or four of which were soaked in the tincture of the muriate of iron. The contents were of the usual glairy character, but somewhat pale; they looked exactly like the white of egg, and measured one fluid ounce. On heating a little, the whole of the heated portion was converted into a solid mass. After cutting away the fragment of the cyst-wall, some slight hæmorrhage followed, which soon subsided before the plugging was commenced.

October 23.—Teeth quite black from use of tincture of iron. A large granulating cavity in floor of mouth, with spacious quadrilateral aperture, through which patient can stuff large flakes of cotton-wool into the cavity.

The cure was uninterrupted. The cavity closed by granulating and subsequently contracting.

NEWCASTLE-ON-TYNE INFIRMARY.

CEREBRAL TUMOUR—AUTOPSY—ENDOTHELIOMA

(Under the care of Dr. PHILIPSON.)

[Reported by Mr. James Limont, M.B., Senior House-Surgeon.]

J. M., aged thirty-six, machinist, admitted May 11, 1882, in a state of stupor, and complaining of pain at front and back of head. Patient could give very little account of himself. His friends stated that he had first complained of pain in the head four months previously, and that for the last three months he had been unable to work; also, that he had had attacks of vomiting and giddiness from time to time. No history nor any signs of syphilis; nor, at this time, could any history of cranial injury be got, but after his death his friends admitted that he had had some injury to the head.

When admitted, patient was in a state of stupor. Memory appeared much affected. There was double internal strabismus, with unequal pupils; double optic neuritis. Hearing unaffected; sense of smell lost. Lies on back; stumbles on

trying to walk. Is with difficulty got to answer questions; speech slow and hesitating. Pain in head apparently increased by percussion in right frontal region.

From the sickness, headache, double optic neuritis, etc., Dr. Philipson diagnosed the presence of a cerebral tumour, probably situated in the frontal region.

May 20.—Patient still more torpid. Bowels obstinately confined. Can scarcely be got to take any food. Pupils insensible to light.

27th.—Death.

Post-mortem Examination.—When the calvarium was removed the membranes appeared normal. The right frontal bone had on its internal surface a much greater concavity than the left, and at its upper and outer part was rough, deeper in colour, and thinned. The dura mater was very adherent towards the front of the longitudinal fissure, and over the right frontal lobe. The right frontal lobe was very hard to the touch, and was grey and mottled, and in all its diameters it was larger than was the left lobe. On section a new growth was discovered, which presented an almost fibrous resistance to the knife, and was found to occupy the whole of the right frontal lobe. It was greyish, with a ragged outline, and measured three inches in each diameter. It was surrounded by soft diffluent cerebral tissue; but all the rest of the brain was healthy. On microscopical examination the tumour was found to present all the characters of an endothelioma.

PUNCTURED WOUND OF KNEE-JOINT—SUPPURATION—FREE DRAINAGE ANTISEPTICALLY.

(Under the care of Dr. ARNISON.)

Reported by Mr. JAMES LIMONT, M.B., Senior House Surgeon.

D. L., aged twenty-nine, glassmaker, admitted March 23, 1882, complaining of pain and swelling of the right knee. Nine days previously he struck the knee with a sharp piece of glass, which pierced the tissues on the outer side of the joint.

When patient was admitted the knee was much swollen, the skin over it reddened and hot to the touch; there was marked fluctuation in the joint, and on the outer side was a small puncture through which pus could be pressed. Patient had had night-sweats, but no rigors, and was suffering from great constitutional depression. Temperature 99·5 Fahr.; pulse 112. The wound was made as aseptic as possible, and the limb put on a splint.

March 24.—Under the spray the wound was enlarged, and a quantity of pus evacuated from the joint, which was then carefully washed out with carbolic lotion. A drainage-tube was then inserted, and gauze dressing applied. Temperature 101·5° Fahr.

25th.—Swelling much reduced. Pain less. A little pus draining through the tube. Temperature 100·5 Fahr.

28th.—Little discomfort. Only a serous discharge from the wound. Tube shortened. Temperature normal.

April 6.—Tube withdrawn, all discharge having ceased. Temperature, since March 28, has never risen above 99·5°, being normal most of the time.

May 17.—Wound healed; all dressings removed. Adhesions have formed in the joint, and have been since broken down under chloroform. Temperature is always normal.

22nd.—Limb placed on a McIntyre's splint. Patient instructed to flex and extend the splint frequently during the day.

June 12.—Limb can be flexed and extended fairly well by means of the screw on the splint. Patient has slight movement in joint when splint is removed.

16th.—Left hospital with slight movement of joint, but not able to bear much weight on the limb.

COW-KOUMISS IN THE DIARRHŒA OF INFANTS.—Dr. Senitschenko, of Kasan, reports that he has derived great benefit from the use of koumiss prepared daily from the milk of the cow. The infants were from three weeks to one year and nine months old, and suffered from dyspepsia, diarrhœa, or cholera infantum. He began with a teaspoonful every quarter of an hour, and after six hours increased this to a tablespoonful. The children soon became accustomed to it, and under its use the stools soon improved, and the frequent vomiting ceased. The children who were the subjects of rickets ceased to suffer from such constant thirst, while sleep became better.—*Petersb. Med. Woch.*, September 2.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, SEPTEMBER 16, 1882.

DR. OLIVER WENDELL HOLMES ON MEDICINE.

ENGLISHMEN, especially English doctors, in the present day are like the Athenians of old, ever looking for some new thing; and this eagerness to learn, with the least possible delay, everything that may have in it the germ of advance, is a trait of the national character which we would not for one moment wish altered, for it is essential to progress. We, like most journalists, make it our business to meet this want so far as lies in our power, by putting before our readers without loss of time that which we think will interest them. This week we depart from usage by printing an address which is now several months old. Its very excellence is the excuse for our delay. Other matters have pressed upon us, for which we have been obliged to immediately find space, lest, when the occasion had passed away, the fugitive words might have lost much of their interest. But when Dr. Wendell Holmes adorns a medical festival with wise, humorous, and graceful speech, it is not necessary to be minutely acquainted with the circumstances which lead him to open his lips. He makes the occasion great; the occasion does not add importance to his remarks. He is always entertaining and always instructive.

Dr. Oliver Wendell Holmes is a poet, a humourist, a philosopher, *sui generis*. Most, indeed nearly all, of those writers of his country and language who have earned, by writings akin to his, a place in the temple of fame, have looked for most of their poetic inspiration either to nature or to the past. Some have left the noisy, smoky town, with its ugliness and its vulgarity, and dreamed sweet thoughts amidst the song of birds, the rustle of trees, the purling of brooks, or the roar of the sea. Others have familiarised themselves with the silent splendour of the past—times which have left us only the grand remains of what was best in them; all the littleness, ugliness, and baseness that existed then

having long since perished, and what was great and beautiful alone survived. But Dr. Holmes has struck out a path of his own. He has gilded with his fancy the prosaic existence of an American boarding-house. Although a lover of nature, and able to appreciate antiquity, yet he has never turned himself away from the actual present, from the homely ways of the poor, the vulgarity of the rich, the hard dry materialism of science, the hopes and fears, the faults and the virtues of every-day men and women in their every-day surroundings; and everything he has touched he has lit up with poetry, wit, and wisdom.

The present address is an illustration of this. The history of medical science we all know to be a thing to be proud of: it is a history illustrating the power of the human mind in wresting her secrets from Nature, and showing individual examples of unselfish devotion to the cause of humanity such as cannot be surpassed and can seldom be paralleled. But few beside Dr. Holmes either could or would have clothed this dry though noble skeleton with such a luxuriant growth of fanciful allusion, thoughtful suggestion, and wise precept. In the history of medical science, however, we have a theme which no one will hold to be unworthy of the highest genius. But what shall we say of the natural history of quackery?—of credulous folly on the one hand, and self-delusion or wilful imposture on the other? The broad highway along which Medicine has marched to greater and greater conquests over disease, may indeed suggest high thoughts; but what of the byways along which charlatans have crept to plunder? Nevertheless, this subject is not unworthy of consideration. The public do resort to quacks, and they do so prompted by natural, and in themselves praiseworthy, instincts. And all quacks are not deliberate impostors. Even from them the wise may learn. They, like ourselves, have to do with a capricious, ignorant, timid, suspicious, and yet confiding public. If a quack is successful, there must be a reason for his success, and though we may not choose to follow his methods, yet it cannot be useless to try and find out the secret of that success. Dr. Holmes contemplates the different forms of popular medical delusion, not merely as a philosopher, but as a medical man; he can thus not only look at them, but see through them. We will not, as we might well be tempted to do, quote from his eloquent address, but will refer our readers to it, confident that they will follow him with pleasure and profit, alike through the byways as through the highways of medicine.

THE ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1880.

The annual Report of the Army Medical Department on the Health of the Army during the year 1880 has only recently been published. As we have before remarked, the length of time which ensues before these Reports are made public deprives them of much of the interest which they would otherwise possess, and for practical purposes makes them of little value to the profession outside the Department itself.

The Report commences by explaining that the average annual strength of the troops serving at home and abroad in 1880, as computed from the returns received by the Army Medical Department, was 159,622 non-commissioned officers and men; the admissions into hospital in this force during the year were 184,635, and the deaths 2182. The rates represented by these numbers are—for admissions into hospital 1156·7, and for deaths 13·34 per 1000 of the average annual strength, the latter being calculated on a strength of 168,570, which includes detached men. The number of recruits inspected during the year was 46,108; of these 39,942 were examined by Army medical officers, and 6166 by civil medical practitioners. The number of recruits rejected by Army medical officers was 15,927, or 398·75 per 1000, and on primary inspection by civil medical practitioners 1320, or 214·08 per 1000. On secondary inspection by Army medical officers of recruits primarily inspected by civil practitioners 1547 were rejected, making the total number of rejections 18,794, or 407·61 per 1000 of the number examined. The total proportion of rejections is higher than that for the previous year by 44·88 per 1000. As compared with the results for 1879, an increase of 10·4 per 1000 was observed among recruits bearing marks of vaccination, and a decrease of 9·2 and 1·2 per 1000 respectively among those who had marks of small-pox, and those who had neither marks of vaccination nor of small-pox. The statistical information given in the reports of previous years as to the admissions for primary venereal sores and gonorrhœa is continued in the present volume, and the results, as heretofore, indicate the increased usefulness of the Contagious Diseases Acts. The sanitary report from Aldershot observes that the difficulties attending the working of the Acts there are very great; there is, however, a distinct absence of the virulent form of syphilis formerly seen; and the Principal Medical Officer of the South-Eastern District reports that Brighton, which is the only military station in the district unprotected by the Acts, shows, as usual, the largest number of admissions, the cases being always of a severe type, and generally followed by secondary symptoms. Similar evidence is given in nearly all the sanitary reports received from the different districts throughout the country.

With the view of ascertaining the number of surgical operations performed in military hospitals during the year, we have compiled the following list from the Report for 1880, which includes all stations except India. In the United Kingdom, five are recorded, viz.: amputation of the thigh, in consequence of inflammation and disorganisation of knee-joint, the result of kneeling on a sharp stone while at drill; amputation of arm in consequence of gunshot wound at drill; amputation of arm after fracture; and extirpation of eye in two cases after injury. At Gibraltar, amputation of the index finger in consequence of contusion. At Malta, two minor operations for the removal of injured toes. In Canada, amputation of the index finger. In Ceylon, an operation for the radical cure of hydrocele. At the Cape of Good Hope there were eight, all of which occurred during the last fortnight of December in consequence of gunshot wounds received in action at Broukhorst Spruit; they were four amputations of the thigh, one of the leg, one of the arm, and excision of the shoulder-joint in two cases. At Cyprus, Bermuda, the West Indies, West Africa, Mauritius, Straits Settlements, and China, the Report states that no surgical operations of any kind were performed.

We will not further extend for the present our notice of the Army Medical Report for 1880; though in it will be found, as usual, much that is interesting to the medical statist. But before closing these remarks we may add that the Appendix to the present volume contains some papers of more than ordinary interest. Amongst them is a Report on Hygiene, by Professor de Chaumont; a paper on Enteric Fever, by Brigade-Surgeon J. A. Marston, now serving as Sanitary Officer with the Army in Egypt; a Medical History of Wars in Afghanistan, 1878-79-80, by Dr. Crawford, now Director-General of the Army Medical Department; and papers on Wars in Natal and the Transvaal, and the actions at Amajuba Hill, Laing's Nek, etc., by medical officers who were present at the several engagements. All these—some of which we may notice on another occasion—and others that we have not space to mention will be found to be more congenial and instructive reading than the necessarily cramped records of the Report proper.

A DOUBTFUL WARRANT.

Our lay contemporaries published on the 8th inst. a paragraph which has given rise to some uneasiness and suspicion. It merely announced that the War Office had issued four new Warrants; and probably the majority of readers would see nothing objectionable in any of the four; but while we have nothing to say to three out of the number, the first of the four does appear to call for a little careful consideration. It runs thus:—"Our Secretary of State may, when he shall deem it fit, employ, under such conditions as he shall from time to time determine, officers on the retired lists of the departments of our Army; but such officers shall in no case be so employed after attaining the age of sixty-five years, and, on ceasing to hold such appointment, shall revert to the retired list, with the rate of retired pay of which they were in receipt when so appointed. Retired officers, while holding such appointments, shall cease to draw their retired pay, and shall receive a consolidated salary to be determined by our Secretary of State, but which shall not in any case exceed the amount of retired pay by more than £150 a year, and shall include all allowances except forage when specially authorised." It would appear from this Warrant that a totally new state of things is contemplated; that the new rule is to be retrospective; and that, up to the age of sixty-five, retired pay is to be considered in the same light as half-pay,—that is to say, as a retaining fee, instead of as a reward for service done. A suspicion has arisen that the Warrant is intended to affect retired medical officers especially, and that it cannot be used with fairness to them, even if the Secretary for War wishes to use his new power with mercy and discretion. The reason for thinking that a new state of things is contemplated, lies in the fact that, a few sessions ago, the Government, in answer to a question whether retired medical officers could not be employed in case of emergency, replied that under existing regulations they could not, but that steps were contemplated to enable the Secretary for War to do what he has now done. Only he has done more: he has assumed a power to work the new Warrant retrospectively, and in this there is a special element of injustice as regards medical officers of the Army. It is perfectly clear that every doctor on entering the Service should then be informed, if such be the case, that should he retire before the age of sixty-five he will be liable to be called on to serve again. It is equally clear that hitherto retired officers have had no notion of any such liability. It is pretty evident also that the Government had no such idea until lately, or how could they have allowed healthy medical officers to commute their pensions, and thus free themselves of all Government control, leaving only the damaged lives, who could not commute, at the mercy of the Secretary for War? The whole system of gratuities instead of pension, was proof also that the Government never dreamt of exercising the power which they now assume. We do not know how officers of other departments may like the new Warrant, but it cannot fall as hardly upon them as it must upon the doctors. Combatant officers, as a rule, have done with *professional* work when they leave the service. The governorship of a gaol is about the nearest approach to the conditions of past life; and the ex-combatants who cannot well live upon their pensions occasionally recruit also the ranks of wine merchants, or become secretaries to clubs and similar institutions. It may be that many of the idle men might rejoice in the prospects of further employment, but we are sure that a grievous injustice *might* be done to very many medical officers, for it does not follow, because an Army doctor retires from the Army, that he also retires from doctoring. On the contrary, many Army doctors have retired with the intention of following their profession at home or in the colonies. In former days the reduction of establishment sometimes placed large numbers of officers on "half-pay" at the close of a long war, and it was only fair that, as vacancies arose, these men should be called upon to return to their regiments, and, in fact, complete their term of service. But the medical officers on the retired list *have completed* their term of service; and yet the new Warrant renders them liable to further calls than would or could be demanded of short-service men who had finished their time in the Reserve. It is possible that the Warrant is only intended to give power to the Secretary for War to call upon medical officers to volunteer for further service, to ask them if they would like temporary employment: but it is capable of being interpreted very differently It gives power to the Government to *demand* the services of retired medical officers, and if so, the forfeiture of pension would be the result of refusal. Surely, before the Warrant could be so acted upon, the commutation of pensions and the right to emigrate should be abolished, and the Government should explain exactly what they mean to do. Do they intend to invite or to compel retired officers to serve again? We hope, when Parliament is assembled, that some friend of the Army Medical Service and of the medical profession will put the question—Which meaning is the Warrant intended to bear?

THE WEEK.

TOPICS OF THE DAY.

Mr. Shirley F. Murphy, the Medical Officer of Health for St. Pancras, also calls attention to the highly unsatisfactory condition of the bakehouses in that parish, and, by inference, in the metropolis generally. He tells the same disquieting story as to the results of Government inspection and supervision as has been told (see *Medical Times and Gazette*, page 250 of the current volume) already by Dr. Meymott Tidy and Mr. Liddle. In a report to the Sanitary Committee of the Vestry of St. Pancras, Mr. Murphy points out that when the duty of enforcing certain special requirements of bakehouses was taken from the Vestry's officers, and placed upon the inspectors of factories and workshops, it was naturally expected that the Vestry's interference would be rarely called for, and it was thought that the proper condition of such places would be insured by the visits of the factory inspector. An inquiry, however, which Mr. Murphy instituted at the beginning of the present year showed that only about one-third of the bakehouses in St. Pancras had, since the passing of the Act in 1878, been visited by the factory inspector; and a recent inspection made by him (Mr. Murphy) of 205 bakehouses in his parish, convinced him that the present machinery is not sufficient to insure their being kept in a proper condition. There are bakehouses structurally unfitted for the purpose for which they are used. Even if the clauses relating to periodical cleansing, to light, and to ventilation were rigorously enforced, bakehouses would still be found in a condition totally unfitted for the preparation of a large food-supply. Mr. Murphy concludes that there is urgent necessity for the registration and the control under regulations of bakehouses, as well as of slaughter-houses and of cowsheds. He considers the taking away of the control of the Vestry over bakehouses as a retrograde step; and he recommends that a communication should be addressed to the other metropolitan sanitary authorities, with a view to ascertaining how far the present position of legislation concerning bakehouses is considered satisfactory by them, and afterwards for the purpose of adopting the course which may then seem best.

Increased publicity may eventually, it is to be hoped, do

something towards putting down the disgraceful and fatal practice of working dispensaries—so-called—by unqualified assistants. Dr. Danford Thomas recently concluded an adjourned inquiry held in Islington on the body of Richard Carroll, aged thirty-two, a coal porter, who was alleged to have died from want of proper medical attendance. Mr. Pridham watched the case for the Medical Defence Association. At the opening of the inquest, evidence was given that when the deceased fell ill his wife was advised to pay threepence at a public-house, and obtain a letter for a dispensary kept by a Mr. Dudley Power. No letter was obtained, but Mr. Power saw and prescribed for the deceased, who eventually died. Mr. Power said he was assistant to Dr. Kane, and had been so for four years; he was not registered, but had walked some of the hospitals in America. Mr. Kane had two dispensaries which were attended alternately by that gentleman and himself, and lately he had been in charge of both, as Mr. Kane was ill. He treated the deceased for alcoholism. The widow deposed that her husband was not addicted to habits of intoxication; she paid the man Power, fully believing him to be a qualified person. The medical evidence showed that the deceased had died from pneumonia. Dr. Rowntree, of Barnsbury, observed that, in his opinion, 90 per cent. of such cases as that of the deceased would not prove fatal if properly treated; no qualified man could or would mistake pneumonia for drunkenness. After some remarks from the coroner on the injustice to the poor which resulted from incompetent persons professing to treat them in illness, the jury returned a verdict of manslaughter against Dudley Power for feloniously killing the deceased, and the coroner issued his warrant for the accused to take his trial on that charge, bail being fixed at two sureties in £100 each.

A new hospital for the isolation and treatment of infectious diseases was recently opened near Sittingbourne. It has been built, on a site given by the late Mr. G. Smeed, by the united sanitary authorities of the Milton Union, comprising six parishes, Sittingbourne, and the town of Milton, at a cost of £5000. It is noticeable from being the first building of the kind erected in Kent, though others are in course of construction, or are contemplated, at Chatham, Maidstone, and Faversham. The hospital consists of two wards, each containing beds for twelve patients, with kitchen and bath-room attached, and the usual offices, and an administrative block in the centre, connected by covered ways.

The insanitary condition of certain towns in the United States has drawn attention to the fact that wooden houses, and especially wooden foundations, are liable after a certain time to cause malarious symptoms. So many malarious attacks have been experienced of late years in San Francisco, that the medical men began to suspect the buildings, especially as the structures themselves, which are nearly all built on wooden foundations, began to show signs of instability, the floors settling, and cracks appearing in the walls. Scientific investigation into the causes of these troubles points to the fact that the wood used in the foundation becomes decayed by contact with the earth, which destroys its fibre, and leaves it porous and brittle. The next stage in the progress is the formation of a fungus-growth from the edge of the wood, composed of infinitesimal insect life, which burrows the remaining wood until its vitality is gone, and the insect itself dies. Physicians attribute many of the unpleasant smells and much of the bad health that the inhabitants of these dwellings experience to this malarial condition, which to a great extent disappears as soon as proper foundations are substituted for the wooden ones. It is easy to imagine that in the United Kingdom there are also many old houses which, without being exactly dangerous to health, have constantly hanging about them a damp odour of decay, giving rise to *malaise*, and it is highly probable that the woodwork will in many, if not in most cases, be found to have afforded a home for insect life.

During the month of July last, says the monthly report of the Registrar-General for Scotland, there were registered in the eight principal towns north of the Tweed the births of 3663 children, and the deaths of 2192 persons. This latter number is 166 under the average for the month during the last ten years, allowing for increase of population. A comparison of the deaths registered in the eight towns shows that during the month under notice the mortality was at the annual rate of 18 deaths per 1000 persons in Edinburgh and in Perth, 19 in Aberdeen and in Leith, 20 in Dundee, 23 in Glasgow and in Greenock, and 29 in Paisley. The miasmatic order of the zymotic class of diseases proved fatal to 411 persons, and constituted 18·7 per cent. of the mortality. This rate was, however, considerably exceeded in Dundee, Leith, and Perth. In Dundee, 13 per cent. of the deaths resulted from measles, and 11 per cent. from diarrhœa; in Paisley, diarrhœa caused 11 per cent.; and in Leith, measles caused 12 per cent. of the whole mortality. Fever was credited with 36 deaths; of these 5 were tabulated as typhus, 29 as enteric, and 2 as simple continued fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 366, or 16·7 per cent. Those from consumption alone numbered 271, or 12·4 per cent. Three males and five females were aged ninety years and upwards, the eldest of whom was formerly a tailor and was 102 years of age.

At a recent meeting of the St. Saviour's Board of Guardians, the Clerk reported that there were a number of lunatics awaiting removal; but that all the asylums in the vicinity, including the private institutions, were full. The total number of lunatics now chargeable to this Union was between 850 and 900. A Guardian inquired if it had been ascertained whether the proceedings of the Salvation Army had anything to do with the increase of lunacy. Mr. Stafford was unable to give the information required, but he mentioned that one of the patients awaiting removal was a case of religious mania. The Clerk was ultimately instructed to write to the justices for the county of Surrey, who have a third asylum in construction, drawing attention to the present difficulty.

Certain difficulties attending School Board legislation, which never occurred to its promoters, continue to press for consideration and prompt action. The Maidstone Local Board had recently to appoint a committee to confer with the School Board authorities, in order to arrange a mode of preventing the attendance of children at the schools when they belong to a family, members of which are afflicted with infectious diseases. The Medical Officer of Health had reported that in two instances he found that numerous children attending the schools were attacked either by measles or scarlet fever, and he had reason to suspect that the schools were centres of infection. The mother of some children attacked admitted to him that she sent her children to school to avoid the persecution of the School Board inspector. The School Board authorities, on the other hand, protest that their officials do their best to keep the medical officer well informed of all cases of illness.

At a recent meeting of the St. George's, Hanover-square, Board of Guardians, the question of the excessive cost of the conveyance of pauper lunatics to county and private asylums was the subject of considerable discussion. One of the members of the Board complained that the charge for each lunatic removed at the expense

of the ratepayers was simply enormous. It now cost three guineas for carriage-hire to take one pauper to Darenth Asylum, and the charges to other asylums were at the same ratio. If a lunatic was conveyed by railway, second-class fare had to be paid, both for the patient and the relieving officer who accompanied him. He thought the Asylums Board and the justices should make some better and cheaper arrangements for the conveyance of pauper lunatics to asylums. The Chairman remarked that he did not think the magistrates would relieve the boards of guardians of any of their responsibility. It was, however, resolved that the charges for the removal of each lunatic should be fixed at a lower rate than the scale which has hitherto been allowed.

THE ARMY MEDICAL DEPARTMENT.

The following is a list, in order of merit, of the fifteen candidates who were successful for appointments as Surgeons in Her Majesty's British Medical Service at the competitive examination held in London on August 21, with the number of marks obtained by each:—

	Marks.		Marks.
W. G. Macpherson .	2365	D. Semple	2030
R. J. S. Simpson . .	2305	J. R. Stuart	2015
F. W. Reid	2233	T. R. Morse	1975
E. V. A. Phipps . .	2180	W. B. C. Deeble . .	1960
V. E. Hunter . . .	2160	J. M. Prendergast . .	1935
A. Baird	2155	R. P. Bond	1905
T. W. O'H. Hamilton .	2055	J. McD. Stewart . .	1890
G. T. H. Thomas . . .	1870 marks.		

THE CHAIR OF SURGERY IN ABERDEEN.

Considerable interest is naturally felt as to who will be fortunate enough to obtain the appointment to the Chair of Surgery in the University of Aberdeen, in succession to Professor Pirrie, who has retired. Among the candidates already mentioned are Dr. Alexander Ogston, Dr. Ogilvie Will, and Mr. Cantlie. The two former are already well known in Aberdeen; and it may be said, we think, that Dr. Ogston is the better known of the two as a surgeon, both in and beyond Aberdeen. Both are able men. Mr. Cantlie distinguished himself as a student in the University; and has gained marked repute as a surgeon and a teacher at Charing-cross Hospital. He is an able and enthusiastic surgeon and anatomist, and succeeds in a remarkable degree in inspiring students with his own enthusiasm for practical and scientific work.

THE METROPOLITAN WATER-SUPPLY FOR JULY LAST.

The report of the Metropolitan Water Examiners for the month of July may be considered favourable. In commenting on the condition of the water previous to filtration, Colonel Bolton remarks—"The state of the water in the Thames at Hampton, Molesey, and Sunbury was good in quality during the whole of the month, and the lowest level was one inch above the summer level mark. The water in the river Lea was also in a good condition during the whole of the month." In their monthly report for July, Messrs. Crookes, Odling, and Tidy remark—"It will be observed that, despite the storms so frequent during the month, the general degree of freedom from turbidity of the water, though less complete than that which was noticeable throughout the two preceding months, was, on the whole, very satisfactory; while in respect of colour, aeration, and freedom from excess of organic matter, the previous excellent condition of the water was fully maintained." Dr. Frankland's report says—"The Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was, as regards dissolved impurities, of better average quality than last month's supply, or indeed of that of any month during the present year. Nevertheless, all the water, excepting that of the Lambeth Company, was slightly turbid, owing to imperfect infiltration. The Lea water distributed by the New River and East London Companies was also of much better quality than it has heretofore been during the present year, and both Companies delivered the water in an efficiently filtered condition."

THE PARIS WEEKLY RETURN.

The number of deaths for the thirty-fifth week of 1882, terminating August 31, was 1006 (562 males and 444 females), and among these there were from typhoid fever 82, small-pox 7, measles 19, scarlatina 2, pertussis 1, diphtheria and croup 26, and erysipelas 5. There were also 45 from acute and tubercular meningitis, 167 from phthisis, 10 from acute bronchitis, 47 from pneumonia, 155 from infantile athrepsia, and 42 violent deaths (33 males and 9 females). Although there is a slight increase of deaths from typhoid fever, the other epidemic affections continue at the low rate of last week. The births for the week amounted to 1152, viz., 571 males (426 legitimate and 145 illegitimate) and 581 females (418 legitimate and 163 illegitimate): 80 infants were either born dead or died within twenty-four hours, viz., 51 males (34 legitimate and 17 illegitimate) and 29 females (18 legitimate and 11 illegitimate).

SUCCESSFUL RESECTION OF A MALIGNANT TUMOUR OF THE COLON.

Professor Nicolaysen, of Christiania, reports in the *Nordiskt Medicinskt Arkiv*, 1882, a successful case of resection of a carcinomatous tumour of the lower part of the colon. The patient was a female, aged forty-nine, who had suffered for a year from constipation, and from painful stools mixed with blood and mucus. A tumour was felt twice in the rectum by another surgeon, but could not be felt on the first examinations of M. Nicolaysen. The patient became worse and worse, and at last the tumour was made to descend into the rectum by the powerful efforts of the patient, and was drawn partly out at the anus, when a cancerous mass of the iliac colon was recognised, invaginated in the rectum. The operation was performed in the following manner:—The patient having been placed under the influence of chloroform, the rectum cleansed with carbolised water, and the bladder emptied, the tumour was drawn coupletely out per anum, and at a part above the limits of the disease the healthy walls of the intestine were pierced by a row of sutures all round. The diseased portion was cut below the sutures. Lastly, the lips of the wound were re-united by suture, and the bowel was released. The patient recovered in fifteen days without any unfavourable symptom, and no trace of the place where the operation had been performed could be discovered in the rectum. The excised part had upon it some remnants of the mesentery and of the omental appendices. There was internally a deep ulceration, with a thick and indurated base, and on microscopical examination it exhibited the characters of cancroid, with cylindrical epithelium. After two months and a half there was no relapse.

THE VITAL STATISTICS OF HASTINGS FOR 1881.

A glance at the vital statistics of Hastings may not be uninteresting to those who are often consulted about that locality as a health-resort. The following particulars are gathered from the annual report of Mr. C. Knox Shaw (the Medical Officer of Health) on the sanitary condition of the borough during the year 1881. The birth-rate for the year was 29·29 per 1000. This, though the highest birth-rate recorded in the locality during the last seven years, was

considerably below that of the metropolis and nineteen large towns in this country, in which it was equal to 35·6. The total number of deaths registered during 1881 was 603, of which 110 were those of visitors or non-parishioners, and 28 occurred in public institutions. In calculating the annual death-rate some account has to be taken of these facts, as it is rendered abnormally high by the addition of so many extraneous deaths: thus, the death-rate calculated upon the total number of deaths is 15·64 per 1000, but, making due allowance for the above figures, Mr. Shaw thinks it would be quite justifiable to place the death-rate for the town itself, for the past year, as low as 14·0 per 1000. The average annual rate of mortality for Hastings for the last seven years has been 16·89 per 1000; therefore, even taking the death-rate of 1881 at 15·64, it is 1·25 below the average. Though scarlet fever was rather prevalent in the borough towards the close of the year, it was of a very mild and non-fatal character, so that the number of deaths from the seven principal zymotic diseases was 11·55 below the average of the last seven years. The local sanatorium has done good service during the past year, and many families have been thankful to avail themselves of it. Seventy-seven cases of scarlet fever were received into it, and, singular to remark, without a single fatal case occurring; four patients suffering from small-pox, of whom one died, were also admitted, as were three cases upon suspicion of infectious disease, but these latter were discharged when it was found that there was no reason for their being detained.

CHARING-CROSS HOSPITAL AND MEDICAL SCHOOL.

THE Medical School of the Charing-cross Hospital is to be congratulated on the position which two of its men occupy on the list of successful candidates for the Indian Medical Service which we publish to-day. Out of thirty-nine competitors for eight vacancies, the first and second men are both from Charing-cross—Mr. Leahy, F.R.C.S. Eng, and Mr. W. W. Webb, M.B., C.M.

THE NORWICH VACCINATION INQUIRY.

THE inquiry held at Norwich into certain cases in which fatal illness followed vaccination terminated last week. The cases inquired into include some at least in which erysipelatous inflammation followed vaccination, and started from the point of inoculation. The inquiry was asked for by persons opposed to vaccination, and we suppose that their expectation and object was rather to gain publicity for the facts than to elicit anything new or expose any abuse. No one that we know of has ever denied that the scratches made in vaccination may, like any other breach of surface, become the starting-point of erysipelas. No specific charge of want of cleanliness or any other kind of carelessness was made against the medical man who performed the vaccinations in question; although he was severely cross-examined with a view to ascertain the possibility of the origin of the erysipelas in some fault of this kind. As the case is still in a sense *sub judice*, the inspectors not having yet made their report, we must refrain for the present from more detailed comment.

A NEW MATERNITY HOSPITAL FOR LIVERPOOL.

A PUBLIC meeting was held in the Liverpool Town Hall on the 11th inst., under the presidency of the Mayor, for the purpose of considering the question of providing special wards for the treatment of diseases of women. Some time ago the subscribers to the Ladies' Charity and Lying-in Hospital found that it was not advisable to continue the indoor treatment of maternity cases and of uterine diseases in the same building, for reasons partly financial and partly medical. The majority of the subscribers determined to abandon the Samaritan department, and to concentrate their attention and funds upon the Lying-in Hospital. The minority, as well as many other persons, believe that a Samaritan hospital is the most important, and that seventeen beds in the Royal Infirmary is a ridiculously small provision for the treatment of uterine diseases in Liverpool; hence the public meeting. About 250 subscribers have promised £1100, and it is thought another £1500 could be easily raised in the same way. The promoters think the Committee of the Lying-in Hospital should hand out to them £2500 to get rid of their claims, but that Committee will only give £1000. The public meeting was decidedly in favour of the proposed hospital, and it is to be hoped that the rivalry between the two institutions will ultimately benefit the science of obstetrics and of gynæcology.

LEUKÆMIA AND PSEUDO-LEUKÆMIA IN INFANCY.

DR. SENATOR has put on record (*Berl. klin. Wochenschrift*) the following case of leukæmia in infancy, which is interesting in and of itself. Female twins, born in September, 1880, were brought to the Polyclinic of the Augusta Hospital, Berlin, on February 16, 1882, and so were about *eighteen months old*. The mother brought the one for bronchitis; the other for general illness. Physical examination revealed in each an enlarged spleen and a moderate degree of rickets. The proportion of white cells to red discs was 1 to 75·4 in the one (C.), and 1 to 10·8 in the other (M.). The red discs were not particularly pale, and had little tendency to form *rouleaux*; and the blood discs in one of the infants (C.) showed changes in shape (oval, pyriform) without the addition of any reagent. The leucocytes were of the larger kind. In addition, a very few of the smallest "granules" were found in the blood. Two months later the proportion of white to red in C. was 1 to 50; in M., 1 to 45. M. died soon after. An autopsy was not allowed. Later still the proportion in C. was 1 to about 10 (imperfect examination). Senator remarked on the infrequency, in his experience, of cases associating rickets with leukæmia, and expressed some surprise at this, seeing that probably in both diseases the marrow of the bones (as Neumann had shown for leucocythæmia) and the spleen were so frequently involved. Whilst admitting the justice of Senator's remarks in the present state of our knowledge, we submit that more investigations on the state of the blood in rickets are wanted.

THE REPORT ON ASYLUMS FOR THE INEBRIATE.

THE second Report of the Inspector of Retreats for the Reformation of Habitual Drunkards has recently been published, and the results recorded must be pronounced very unsatisfactory. The measures sanctioned by the Act of 1879, on the lines of the inebriate legislation in the United States, have not, at least up to the present time, proved a success. Only one establishment—at Westgate-on-Sea, for the reception of five male and five female patients—has been added to the list of asylums during the past year. The original retreat at Cannock, in Staffordshire, was designed to receive ten male patients, but is stated to be now quite empty. When there were any patients at Cannock, there was, according to the report, a want of harmony between the proprietor and some of his patients. The number of inmates dwindled down to three; these were eventually discharged by the magistrates, and the establishment was broken up. Recently, however, it has been reopened for the same purpose by a new proprietor. Public-houses in the vicinity of "retreats" will, the inspector considers, be productive of some trouble unless the licensees of the

retreats have large grounds in which their patients can take recreation, or a sufficient staff of attendants to prevent the patients from making use of the liquor-selling establishments. Some patients, the Report observes, have behaved very well down to the day of their discharge, and immediately after recovering their liberty have taken again to their old habits; while others have procured drink in secret whilst in residence. The inspector expresses his regret that the proposed Dalrymple Home in the neighbourhood of London, for the working and lower middle classes, has been so long delayed. So far, the Act has certainly not realised the hopes of its promoters; but this has arisen from the permissive character of the Act, and from its having been enacted for a short period only. With the jealousy which surrounds the liberty of the subject in this country, it must be very difficult to obtain positive and sufficient legislation on this subject; but undoubtedly, could such be obtained, and carried out thoroughly and well, it would be an immense boon to the class for whom it is desired.

INDIAN MEDICAL SERVICE.

Appended is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 21, 1882, and following days. Thirty-nine candidates competed for eight appointments. All were reported qualified.

	Marks		Marks
A. W. D. Leahy . . .	2,960	R. E. S. Davis . . .	2,340
W. W. Webb . . .	2,530	H. K. Fuller . . .	2,320
R. R. Weir . . .	2,510	W. H. Neilson . . .	2,220
W. H. Burke . . .	2,377	John Crimmin . . .	2,185

THE EDINBURGH MEDICAL SCHOOL.

The vacancies in the Edinburgh Medical School caused by the appointment of Mr. Chiene to the Chair of Surgery, and by the retirement of Dr. Watson from the Lectureship on Surgery at Surgeons' Hall, were filled up last week. Dr. A. G. Miller will succeed Dr. Watson at Surgeons' Hall, and Dr. C. W. Macgillivray has been unanimously appointed to the Minto House Lectureship on Surgery. Dr. Macgillivray is thus a new lecturer in the School, but he is already a tried and proved man, as he has conducted for several years past the operative part of Dr. Watson's surgical lectures. He is, of course, a candidate for the vacant post of Assistant-Surgeon to the Royal Infirmary, and is unquestionably a very fitting man for the appointment.

THE SOCIAL SCIENCE CONGRESS.

A very complete and neatly got-up little manual for the Congress of the National Association for the Promotion of Social Science, with a narrative of past labours and their results, has been published by Mr. J. L. Clifford-Smith, the Secretary of the Association, to commemorate the approaching meeting at Nottingham (September 20 to 27). This little book, which may be obtained for half-a-crown at the office of the Association (1, Adam-street, Adelphi, W.C.), notes the influence exerted and the prominent part borne by the Association and the Law Amendment Society in the legislative enactment of many useful measures; and contains a tabular statement giving the years and places of past congresses, a list of former presidents, etc., and photographs of the founders of the Association. This year, Mr. George Woodyatt Hastings, M.P., will be, as we have before stated, the President of the Congress, and will deliver the inaugural address on the evening of Wednesday, September 20. Mr. H. E. Bristowe, Q.C., Vice-Chancellor of the Duchy of Lancaster, will preside in the Sections of Jurisprudence and Amendment of the Law, and of International and Municipal Law; Sir John Pope Hennessey, K.C.M.G., in the Repression of Crime Section; Mr. W. Woodall, M.P., in the Education Department; Sir Rutherford Alcock, K.C.B., in the Health Department; Professor Bonamy Price, M.A., in the Department of Economics; and Mr. George Aitchison, A.R.A., in the Art Department. Special questions are selected for discussion in each of the departments.

THE HEALTH OF BUXTON DURING THE YEAR 1881.

The vital statistics of the town of Buxton for the year 1881 may be said to justify the selection of the locality as a health-resort. On turning to the report of Mr. Frederick Turner, the Medical Officer of Health to the Buxton Urban District, it appears that the death-rate for the past year (10·29 per 1000) was less than that of any previous year on record, and compares most favourably with the mean of the last seven years (14·39), and with the average mortality of twenty large English towns, which was 21·6. In giving a history of the generation, introduction, and dissemination of disease within the district, Mr. Turner remarks that every effort has been made by him to obtain the earliest and most reliable information possible; but, until the notification of infectious diseases is rendered compulsory, he is of opinion that this part of a medical officer's work must remain imperfect and a source of continual anxiety and difficulty. It is gratifying, the Report says, to record that there are now few houses in Buxton unconnected with the extended system of sewers. These practically reach the extremities of the district, very few houses having been erected at such a level as to render connective drainage impossible; at the same time a few individuals still persistently cling to the idea that a fissure in a rock is a channel capable of swallowing with safety any amount of sewage that may be poured into it. The time, however, is not far distant when even these people will be compelled to comply with the orders of the local authority. The removal of the stables from the vicinity of the Devonshire Hospital is recorded as a sanitary work of great importance, largely conducing to the health and well-being of its inmates. The Report, taken altogether, is so satisfactory that it is somewhat singular to note that no steps have yet been taken to provide a hospital for the isolation and treatment of patients suffering from infectious disease; an institution which is almost a necessity in a town which is largely visited by persons from all parts of the kingdom, healthy or unhealthy.

THE PARKES MUSEUM.

The Council of the Parkes Museum have just acquired new premises in Margaret-street, Cavendish-square, to which the Museum is to be removed from University College as soon as the alterations and additions now being made are completed. The new Museum will consist of a central hall suitable for meetings and lectures, a library, and corridors, all lighted from the top, and well suited for exhibition purposes. The meetings and lectures on sanitary and other matters connected with the health of the people, which were only occasional while the Museum was at University College, will form a permanent feature of the institution when it is reopened in Margaret-street. At the last meeting of the Council a letter was read from Mr. Thomas Twining, of Twickenham, who expressed his satisfaction at the prospect of a great increase of usefulness of the Museum in its new home, and offered a special donation of £100 towards the necessary extra expenses. It is expected that the Museum will be reopened before Christmas; in the meantime communications may be addressed to the Secretary and Curator Mr. Mark H. Judge, at 8, Park-place-villas, Paddington, W.

LAPARO-HYSTEROTOMY FOR COMPLETE PROLAPSE OF UTERUS AND VAGINA.

A REMARKABLE case of the above method of treatment is recorded in a recent number of the *Berliner klinische Wochenschrift*, by Dr. Kuhn, who was induced to practise it by the writings of Professor Müller, of Bern. The patient was a virgin, aged twenty-seven, whose life had been passed in indigent circumstances, and whose physical development had suffered in consequence. She did not menstruate until the age of twenty-one, and this function was scanty and irregular. To remedy this she put herself under the treatment of some quack, and shortly after menstruation had followed this person's treatment (the nature of which is not stated), the uterus and vagina became, within two days, completely prolapsed. The patient was then aged twenty-four, and from that time until she came to Dr. Kuhn had been treated in various ways, every kind of pessary having been tried without success. When she came under his care she was anæmic and thin. The prolapsus formed a tumour as big as a man's fist. The vagina was completely inverted, and the prolapsed uterus contained in the sac so formed. The hymen formed a fold about a centimetre deep. The cellular tissue between the vagina and the bladder in front and the rectum behind was unusually loose, so that neither of these viscera were prolapsed. In January, 1881, the operations of anterior and posterior elytrorrhaphy and perineorrhaphy were performed, with the result that the patient was for a time relieved; but the artificially narrowed vaginal orifice became again gradually dilated, and in July of the same year the patient returned to the hospital. In August, therefore, with antiseptic precautions, the abdomen was opened. Both ovaries were first removed. Then an oval slice was cut off the fundus of the uterus, so as to give a kind of island of raw tissue surrounded by peritoneum. This raw surface was brought into contact with the abdominal wound, and the uterus then stitched into its new position, so that the peritoneum surrounding the raw surface on the uterus was united to that of the abdominal parietes. The patient recovered well from the operation—though not quickly, for she was about seven weeks in bed, owing to prolonged suppuration of the wound,—and the uterus remained in its new position. Nevertheless, the patient was not free from discomfort, for she still suffered from prolapse of the vagina, on account of which a fresh anterior elytrorrhaphy and slight perineorrhaphy was performed. This succeeded, and at length the patient was well. Dr. Kuhn raises the question as to whether the removal of the ovaries was justifiable in this case. His reason for doing it was that the possible risks of pregnancy, with the uterus adherent to the abdominal wall, might be prevented. We must congratulate him, at least, on the docility of his patient; for we doubt whether in England many patients would be found to go through so much for the relief of so little. The case is interesting, also, because it shows how small a part the uterus itself plays in the phenomena of prolapsus. In this case the symptoms continued, although the uterus was immovably fixed to the anterior wall of the abdomen.

IODOFORM.

DR. LANGSTEINER records a supposed example of iodoform-poisoning with fatal result. A cancer had been removed from the submaxillary region in an octogenarian, and about four grammes of iodoform used as antiseptic dressing. Death ensued in six days, the prominent symptoms being cerebral. Dr. Benzan reports favourable results in six cases of diphtheria treated by the local application of finely powdered iodoform by means of a small camel's-hair brush. The patients' ages varied from four to twenty-two years.

ACCOMMODATION FOR HOP-PICKERS.

A TIMELY warning has been given to the local sanitary authorities by the Government Board, as to the necessity of a supervision by them and their officers of the accommodation provided for the hop-pickers who will be employed in their districts during the approaching hop-picking season, and of the sanitary arrangements connected therewith. The Board state that they trust that the sanitary authorities will not fail to impress upon their officers the importance of giving special attention to these matters, and of frequently visiting the premises in which the hop-pickers are housed. As regards those districts where by-laws relating to hop-pickers are in force, the Board rely upon the necessary measures being taken for securing a strict enforcement of their requirements.

AMERICAN BOARDS OF HEALTH.

THAT useful creation, "the intelligent foreigner," might easily be forgiven should he be led to believe that it is a principle of our constitution that in all administrative business, where special professional knowledge is most called for, laymen of no particular calling are to be preferred to men who have made the matters in question the study of their whole lives; or that, at any rate, if their special knowledge is indispensable, they shall be admitted in so small a proportion that they shall not be able to assist the decisions of the Board, on which they are supposed to act. This may be seen, more or less, in every Royal Commission, and in every department, from the Admiralty to the village sanitary authority, the sole exception being when the law-makers—lawyers—themselves are concerned. Some things are better managed on the other side of the Atlantic; and, however defective medical education may be there, and lax as are the laws affecting medical practice, our American cousins are in some respects in advance of us. Their boards of health, the local sanitary authorities, are mainly composed of medical men. We have before us the first Annual Report of the newly constituted Board of Health of Detroit, Michigan, U.S., a volume which has given us as much amusement as instruction. To persons accustomed to the sober style of official documents it is certainly startling to meet with paragraphs of sentimental and inflated diction which the most sensational of our daily papers could scarcely equal; or to read of "men who might learn wisdom from cats and decency from swine not already degraded by intercourse with human kind"! But, with all its defects, this Report contains much that our sanitary legislators might study with advantage. The burning question of the notification of infectious diseases has been solved with a rigour not surpassed by the Dutch law. On principle preferring isolation at home to removal to a hospital, the occupier of an infected house is compelled to affix conspicuously over his door a card provided by the Board, indicating the nature of the disease, and all communication with the outer world is strictly prohibited, except for medical men, nurses, and clergymen, until the death, recovery, or removal of the patient, and disinfection of the premises, on pain of removal of the patient to hospital. "Physicians, or persons acting as such,"—for a diploma is not required—are bound under a penalty to notify without fee all cases of infectious disease coming under their care, on forms provided by the Board, the form also naming the schools where any children in the house attend, while the heads of schools, in their turn, are required to exclude all children coming from infected houses until the disinfection is reported by the physician or, if the medical attendant be not one, by the city physician (our parish surgeon), these officers being associated with the health officer, and serving under the Board of Health. The Detroit Board,

we may remark in passing, consists of three *ex officio* members—the Mayor, Controller, and President of the Police Commissioners—and of three elected members, who must be "practising physicians," and from whom the President of the Board is chosen. The health officer must not be engaged in practice, and in Detroit has a salary of £600, which seems to be the average in such cities. The Board have enacted—or, more accurately, "the people of Detroit have enjoined"—a system of registration of deaths and interments of the strictest and most complete character. The certificate, which must be forwarded by the physician directly to the Board of Health, and within twenty-four hours of the death, contains not only all the facts contained in our forms, as well as here given by "the person giving information of the death" (who does not exist in Detroit), but also the name of the undertaker and intended place of burial. When this has been examined and filed by the health officer, a burial permit, fuller than the corresponding document in use here, is issued from the office of the Board. There are other matters of interest in the Report, but the practical solution of the questions of the constitution of boards of health, the notification and isolation of infectious diseases, and the certification of the cause of death independently of the friends of the deceased, are of especial interest at the present time.

NAVAL MEDICAL DEPARTMENT.

THE following is a list of the successful candidates for appointments as Surgeons in the Royal Navy at the competitive examination at Burlington House on August 21 and following days:—

	Marks.		Marks.
J. S. Logan	2060	J. McC. Martin . . .	1850
R. J. Lawson . . .	2030	J. L. Bagnall-Oakeley	1770
J. Cashin	2025	F. Woore	1755
T. Nunan	1980	W. M. Craig	1740
W. H. Norman . . .	1970	H. S. Jackson . . .	1700
P. E. Todd	1950	J. M. Phillips . . .	1695

In addition to the above, eight other candidates were reported by the Examiners as qualified.

PROFESSOR CHEVREUL.

"M. CHEVREUL," the *Gazette des Hopitaux* notes, "'the Dean of French students,' as he delights to call himself, has just entered upon his ninety-seventh year. Born August 31, 1786, he was made a member of the Académie des Sciences in 1826, in succession to M. Proust, whose membership he had contested in 1816. Since 1810 our venerated *confrère* has formed one among the administrators of the Muséum d'Histoire Naturelle."

ENTERIC FEVER AT ULVERSTONE IN THE AUTUMN OF 1881.

IN November, 1881, information reached the Local Government Board that enteric fever was prevalent at Ulverstone, in North Lancashire, and early in the present year Mr. John Spear was directed to institute a local inquiry into the circumstances of the outbreak. During 1881 two cases of the fever were recorded in the first quarter of the year, one in the second, sixteen in the third, and thirty-three in the fourth; it was, in fact, quite at the close of the third quarter that the disease assumed its greater prevalence. Thirty of the cases evidently belonged to one separate group; they occurred in a small section of the district, and their histories were strongly indicative of their common origin. Moreover, Mr. Spear thinks the history of this group of cases supplies the key to the whole fever prevalence in the district, not of the year 1881 only, but of earlier periods, since fever last year in Ulverstone was exceptional solely on account of the unusually large number of cases that occurred. The locality specially infected, which may be called the Lightburn district, is on the outskirts of the town, and although, in some of the houses attacked, interior drain connexions were found to be defective, it was established that in the majority of cases there was no connexion between the interior of the houses invaded and the sewer. The milk-supply was next investigated and exonerated, so that it became evident that the blame must attach to the water-supply. The principal portion of the town is furnished with water from the mains of the Barrow Corporation Waterworks, but from being often delivered muddy and discoloured this water has a bad reputation amongst the inhabitants, and it is the invariable custom to resort to other supplies for drinking purposes where such are available. In the lower part of the Lightburn district, close to the several infected dwellings, a spring, the feeders of which are known to be crossed at different parts of their course by the town sewers, comes to the surface, and is largely resorted to as a noted drinking-water by the inhabitants of the neighbourhood. At nearly every one of the infected dwellings this water was more or less continuously used, and the cases of fever followed its course as it flowed out of the Lightburn district. Moreover, a case occurred during the time the fever was most prevalent in this district, in another part of the town not otherwise infected, as to the occurrence of which no explanation could be discovered, except that the sufferer had drunk the water of the spring in question, about a week previous to his attack, after playing at football in an adjoining field. Further, Mr. Spear ascertained that on August 25, 1881, just before this outbreak, but after the first case of fever appeared, a violent storm of rain visited the district; the sewers, of this locality especially, were running full at the time, and were doubtless under great pressure, so that it is probable that their contents passed to some extent into the surrounding soil. Again, the storm-water rushed down the back street of the Lightburn-road, where the earliest case of fever was, washing past the very privy in which typhoid excrement was being deposited. At this time, accordingly, while the heavy rainfall increased the turbidity of the public water-supply, the other source, to which people on such occasions resorted, was peculiarly susceptible to dangerous pollution. There are good grounds for supposing, Mr. Spear observes, that other springs in Ulverstone are similarly polluted; nor is the public water-supply itself entirely beyond suspicion, seeing that no steps are taken to prevent the drainage from manured fields finding its way into the reservoir. Under the circumstances so fully explained, it is not surprising to find that the recommendations attached to Mr. Spear's Report are framed with a view of improving the public water-supply, and discouraging the use of any other.

EGYPTIAN RELIEF FUND.

CAPTAIN RICHARDSON, of Leicester, has gratuitously supplied a very large stock of medicines to go to Alexandria this week with Lady Strangford. A large firm in London has followed this example.

ON A PECULIAR REDUCING SUBSTANCE IN THE URINE FROM THE INTERNAL EMPLOYMENT OF TURPENTINE.

FROM the researches of M. Vetlesen in the Physiological Institute of Christiania, published in the *Nordiskt Medicinskt Arkiv* for 1882, it appears that during the internal employment of turpentine the urine contains a rather large quantity of a reducing substance, which in its reactions (such as blackening, on boiling, an alkaline solution of oxide of bismuth, and reducing the peroxide of copper to the suboxide) seems to be composed in great part of a matter strongly resembling grape-sugar, without, however, being in any

way identical with it. The author, in fact, has never succeeded with the polarising apparatus in observing the rotation to the right side. The reaction disappears after fermentation, which process appears to act more slowly. Experiments subsequently showed that a small quantity of hydrochloric acid destroyed this reducing substance even at a relatively low temperature, while under the same circumstances it was proved that grape-sugar is only slightly destroyed. The reducing substance described by M. Vetlesen is in all probability optically indifferent it disappears by fermentation with rather more difficulty than grape-sugar; but as it does so when the urine is simply left to rest for about five days, it might perhaps be supposed that it is not a fermentable body. But M. Otto has traced in one experiment, and after fermentation, some alcohol in the distilled product, while before fermentation the urine gave only a negative result. It may be admitted as the result of the experiment that the substance appearing in the urine during the internal use of turpentine is a kind of fermentable sugar, the nature of which, however, is not yet specially determined. The researches made appear to show that the quantity of this reducing substance is in relation to the amount of the dose of turpentine, and that it diminishes if the use of this drug be continued for a certain time.

According to the daily papers, Mrs. Russell, of Great Marlow, has been appointed to the office of Registrar of Births and Deaths, rendered vacant through the death of her husband. The duties of the office are certainly well within the powers of an intelligent, fairly educated woman, and we see no reason why these registrarships should not be considered as generally open to candidates of the fair sex. In this instance, however, the appointment has apparently not been made without a complicated procedure and great caution. The ratepayers of the district memorialised the guardians to appoint the lady; the guardians, agreeing with the ratepayers, moved the Local Government Board to sanction the appointment; the Board referred the matter to the Registrar-General; and the Registrar-General having made several inquiries as to the lady's ability, has sanctioned the appointment for twelve months.

A chemist and druggist at Hull has been convicted of illegally selling paregoric prepared with methylated spirits, thereby making himself liable to a penalty of £100. He admitted the offence, but pleaded that it was done by mistake; and he escaped with a fine of £10 and costs. The error, or mistake, could not have escaped instant recognition unless the chemist had lost the sense of smell; and the remedy was in his own hands.

In the *Wiener Med. Wochenschrift*, No. 35, Dr. Ludwig Klaar reports a fatal case of perforation of the œsophagus, due to a wood-shaving having become impacted in the gullet at the level of the bifurcation of the trachea. The thoracic aorta was eaten into, and this led to the man's death by profuse hæmorrhage.

Death of Dr. Desmarres.—"Dr. L. A. Desmarres, who, for a certain time, held in France the sceptre of ophthalmology, died on August 22 at Evreux, in the seventy-second year of his age. He wrote a great number of essays, but is especially known by his 'Traité Théorique et Pratique des Maladies des Yeux' (1847), which was of great service to those not familiarised with this special branch of surgery. A second edition, in three volumes, appeared in 1853. We also owe an opthalmoscope to him."—*Gaz. Hebdomadaire*, September 2.

FROM ABROAD.

Professor Volkmann on the Treatment of Hydrarthroses.

Prof. Volkmann (*Centralblatt f. Chirurgie*, August 19), in reference to a discussion upon this subject at the Paris Société de Chirurgie, observes that in chronic effusion into the joints, he has several hundred times performed puncture of the joints, and followed it up by washing out the cavity with a solution of carbolic acid of from 3 to 5 per cent., without having ever met with any accident, or even the least disturbance, after this manipulation. As a general rule, from ten to fifteen glass syringes full, capable of holding each 45 grammes, had to be alternately employed, and the fluid allowed to run away, before this was discharged in a clear condition, showing that the synovial fluid, which the added carbolic acid easily renders turbid, was entirely removed, and the joint thoroughly washed out. In order that the carbolic acid might exert its influence on every part of the surface of the capsule, the joint was then moderately filled by the injection of from one to three syringes full, and then submitted for a short time to movements of flexion and extension. A larger quantity of the solution than this was never left in the joints, and even the slightest symptoms of carbolic intoxication have never been observed. After the washing-out was finished, the limb was always surrounded by a Lister dressing, and kept immovably for some time on a splint. When the effusion has not been of too old a date, recovery has always followed a single puncture and washing-out, although, as a rule, firm bandaging is required for the prevention of relapse, for diminishing the thickening of the capsule, etc. In bad cases, in which there has been great extension of the capsule and ligaments, due to large and old hydrarthroses, the punctures and washing-out have to be repeated two, three, even four times, at intervals of several weeks, before the capsule contracts sufficiently. Iodine injections, which Prof. Volkmann formerly employed frequently, he has now discontinued, as possessing no advantage, and occasionally giving rise to suppuration of the joint. In the worst cases, with great distension and thickening of the capsule, great villous formation, large fibrinous coagula, dropsy, riziform bodies, or *gonitis fibrinosa*, without fluid exudation, Prof. Volkmann always makes a double incision into the joint, and introduces two very short (sufficiently long, however, to completely enter the joint) drainage-tubes, which, after carefully washing out the joint, are left in as long as any secretions issue through them. He is unable to say how often he has performed this operation, which has been by far the most frequently executed on the knee, but certainly more than a hundred times. Even in these cases only disturbances of a very slight nature were sometimes met with, although the procedure was employed in bad cases of disease of the joints when great dropsical effusion was present. The general conclusion, therefore, is that both puncturing and washing out the joint, and the double incision and drainage, with the aid of antiseptics, may be declared to be operations unattended with danger and followed by satisfactory results. How thoroughly Prof. Volkmann has been convinced of this may be inferred from the fact that for a series of years he allowed Prof. Rancke to attach a manometer to the trocar, in order to institute experiments on the intra-articular pressure in the living man. None of these experiments did the slightest harm to the persons on whom they were performed; and it is to be much regretted that, owing to its having appeared only in the form of a Latin *Habilitationschrift*, this distinguished work of Rancke, in which he arrives at the most important conclusions concerning the conditions of pressure in the knee-joint and their variations in the various positions of the limb, are so much less known than they deserve to be.

Typhoid Fever in Paris.

In a paper read before the Académie de Médecine (*Bulletin*, September 5), by Dr. Pietra Santa, on "Typhoid Fever in Paris during the Period 1875-82," he states that a minute inquiry which he has made by means of documents furnished

him by the various hygienic and medico-statistical authorities in the different capitals of Europe, brings into relief these three facts:—1. The existence in all the great centres of population of a fever which, in spite of the various denominations that have been bestowed upon it in these different countries, possesses a special and characteristic physiognomy, termed the *typhic* or typhoid condition. 2. The recrudescence at variable epochs (between the months of July and November) of this disease, which exists everywhere in the condition of endemicity—a recrudescence which is sometimes sufficiently notable to assume the appearance of a true epidemic. 3. The constant and progressive diminution of the endemic condition of typhoid fever, both in regard to the number of cases and their gravity, in proportion as large undertakings in sanitary work and general hygiene have received a more considerable and more intelligent development—as in London, Turin, Munich, Zürich, Dantzic, Breslau, etc.

In Paris for several years past, typhoid fever has assumed more and more alarming proportions. The proportion of typhoid fever in relation to the general mortality from all causes, which from 1865 to 1867 was 1·90 per 1000 deaths, was 2·30 in 1875, and 4·08 in 1876. The number of deaths from this cause was 1056 in 1880 and 2130 in 1881, and 989 during the first half of 1882, which represents a proportion of 4·6 per cent. on the general deaths. The medical statistics furnished by the Préfecture de la Seine and the Conseil d'Hygiène et de Salubrité, show—(1) That it is regularly in the months of August and November that typhoid fever makes most victims in Paris; (2) that its distribution is unequal in the various arrondissements; and (3) that there does not exist any direct and constant relation between the number of deaths from typhoid and the number of the population of the arrondissement, its superficies, its density of population, and its general mortality. In fine, medical statistics render their support to clinical observation in demonstrating the impossibility of attaching typhoid fever to any single cause, such as its fæcal origin of the English school.

GENERAL CORRESPONDENCE.

THE DALRYMPLE HOME FOR INEBRIATES.

LETTER FROM DR. NORMAN KERR.

[To the Editor of the Medical Times and Gazette.]

SIR,—In his second annual report, the able Inspector of Inebriate Retreats strongly urges the need for the opening of the proposed Dalrymple Home for Inebriates. Though indefatigable in their efforts, the Committee have received very limited pecuniary support. They, however, hope to be able to commence operations before the end of this year. The triumphant progress of temperance missions is daily recorded by the press, and it is to be hoped that the unselfishness and devotion which ought to be the motive power of such a crusade will be attested by liberal financial support to the projected Dalrymple Home, as an attempt at the reformation and cure of the many habitual drunkards whose whole system has become so diseased by alcohol, that absolute seclusion from temptation is essential to restore their shattered nerves and their utterly broken down will-power. Among the officebearers of the proposed Home are the Archbishop of Canterbury, the Duke of Westminster, Lord Shaftesbury, Sir Thomas Watson, Sir Henry Thompson, Dr. Andrew Clark, and Dr. B. W. Richardson. The sum of £3000 is still needed. Donations and also annual subscriptions will be thankfully received by the chairman, Canon Duckworth; Dr. Alfred Carpenter, Croydon; and

Yours, &c.,
NORMAN KERR, M.D.,
Hon. Sec. Dalrymple Home.

42, Grove-road, Regent's-park, September 9.

GLOUCESTER COUNTY ASYLUM.—Mr. Frederick Hurst Craddock, B.A. Oxon., M.R.C.S., L.S.A., Senior Assistant Medical Officer and Deputy Superintendent of the Worcester County and City Asylum, has been appointed Medical Superintendent of the Gloucester County Asylum.

REVIEWS, NOTICES OF BOOKS, &c.

Suicide: An Essay on Comparative Moral Statistics. By HENRY MORSELLI, M.D., Professor of Psychological Medicine in the Royal University of Turin, etc. Kegan Paul and Co. Crown 8vo, pp. 388.

PROFESSOR MORSELLI has revised and abridged his book on Suicide especially for the English version, which forms vol. xxxvi. of "The International Scientific Series," but the work as he has given it to us is so excellent that we begrudge the portions that he has omitted. The main body of the book is formed of a collection, analysis, and collation of the statistics of suicide in various countries, and the arrangement of the statistics in tables, charts, and maps, with reference to every circumstance that can be supposed to have an influence in inducing voluntary death. The comprehensiveness of the tables, and the care and minuteness with which every influence has been considered, are surprising. Thus, not only do nationality, locality, climate, geographical, geological, hydrographical, and seasonal conditions receive their numerical value, but the atmospheric pressure, the humidity, the day of the week, the hour of the day, and even the phase of the moon, receive their share of attention. The influences of race and physique, as well as of customs and religion, are of course considered, but here we have to notice the absence of any mention of the Japanese observance of the "happy dispatch," or of the astounding fact that in China proxies can be procured for payment, who will undergo capital punishment in the place of the condemned criminal. For the interesting generalisations which Professor Morselli deduces from his figures we must refer the reader to his book, since they are too intimately bound up with their context to be quoted without damage; but his synthetic interpretation of the facts that he has collected with so much labour is so thoroughly in the spirit of the best philosophical thought, that we are fain to quote his conclusions. Looking at the subject from a sociological point of view, Professor Morselli arrives at the conclusion that suicides, in common with lunatics and paupers, are the sociological failures—those whose organisation, either from original defect or from excessive demand having been made upon it, is handicapped in the struggle for existence, and by the strenuous pressure of competition is pushed over the boundary which divides self-conservation from destruction. Whether the destruction comes in the form of starvation or madness or suicide, is a matter quasi-accidental, and depending on secondary conditions. Hence the one and only radical remedy for suicide is to diminish the stress of the struggle for life by diminishing the prolific increase of the human race, which is the ultimate cause of the conflict. "The answer to this idea of the Malthusian economical school will be that the history of our age proves the existence of always great and unexpected resources; but we can predict too surely a not very remote time when it will be no longer possible to augment the old or create new resources." In the meantime, Professor Morselli says, we must content ourselves with indirect and palliative remedies. This may be true; but, if true, it says little for the courage or the honesty of the average mind of this generation, that its sole way of dealing with this tremendous problem is a clamorous denial of its existence.

In the July number of *Brain*, Dr. Ross has an erudite article on Paralysis of Cerebral Origin simulating Bulbar Paralysis, from which it is easily distinguished, however, by its sudden onset, by the retention of reflexes in the paralysed muscles, and by the fact that the paralysed muscles do not undergo atrophy. A very remarkable paper by Dr. William Alexander, of Liverpool, on the Effect of Tying the Vertebral Arteries in cases of Epilepsy, follows. Dr. Alexander's first papers on this subject were published in our pages in 1881 and in the present year. When he wrote the article in question, in July, the operation had been done thirty-two times. Of twenty-one cases sufficiently advanced for useful comment, "three have been quite well for nearly a year; nine others have been so free from fits, and for such a space of time, that it may be said that a cure has resulted or is likely to result; and eight have improved in so many respects, or are improving so steadily, that the operation would be justifiable were no better results

ever obtained." "To afford reasonable hope of success, the epilepsy must not be allowed to become too chronic; it should therefore be performed as soon as it becomes evident that drugs have no curative effect." Dr. Hadden has a paper on the Nervous Symptoms of Myxœdema; Mr. Oglesby one on Typhoid Fever in relation to Disease of the Optic Disc; Dr. Hughes Bennett a valuable article on Electro-Diagnosis in Paralysis, giving a striking and picturesque presentment of the great value of this aid to diagnosis; and Dr. Bucknill re-examines the question of Guiteau's sanity, with the result that he justifies the verdict, the sentence, and the execution.

The Alienist and Neurologist is the title of an excellent American periodical, published quarterly at St. Louis, and edited by Dr. C. H. Hughes. It avows itself to be "not so much a journal for specialists as a special journal for general practitioners and advanced students of medicine," but in the scope, detail, and thoroughness of its articles it is as well fitted for the former *rôle* as for the latter, if not better—a single article on Progressive Paralysis of the Insane extending to thirty-two pages. The July number contains an article on the Lamson Case, which will have interest for those who have not forgotten that wretched affair. Four of the affidavits which were sent across the Atlantic to the Home Secretary are reproduced *in extenso*, and certainly, if fully worthy of credit, bear strong testimony to the mental peculiarities of the unfortunate man, and to his craze for administering aconite; but no amount of such evidence could surmount the fact that in the case for which he was executed he gave the deadly drug clandestinely. Dr. Foville's paper on Megalomania, which he read at the International Congress last year, and a *resumé* of which was given at that time in these pages, is reproduced *in extenso* in the *Alienist*. The interminable case of Guiteau is of course thrashed out again. Of him it is indeed true that "the evil that men do lives after them." The same shot that killed President Garfield set half the alienists in the world by the ears. An interesting article on Insanity in Great Britain gives to the superintendents of our asylums the coveted gift of seeing themselves as others see them; and they have no reason to be dissatisfied with the spectacle. Those who remember Dr. Bucknill's description of American asylums as they existed in 1876 will not wonder that an American superintendent should be favourably impressed with our asylums. Even yet our Transatlantic relatives have not arrived at the abolition of restraint in the treatment of the insane; and the halt, maimed, and decrepid old arguments in its favour are still paraded with as brave a show as ever was Falstaff's army. Amongst them is the resuscitated corpse known as Different Type of Disease, which served with distinction some years ago in the defence of the ancient practice of blood-letting, and was then and there slain; but it seems to have imbibed some of the spirit of its leader, and to have emulated his conduct on the field of Shrewsbury.

PROFESSOR VERNEUIL ON TRANSFUSION.—During a discussion on this subject at the meeting of the Association Française at Rochelle (*Gaz. Hebd.*, September 2), Prof. Verneuil expressed his opinion that transfusion is often a very difficult and dangerous operation, and almost always a useless one. In place of occupying ourselves with the mechanical procedures of the operation, it would be better to consider its physiological pathology, its indications, and its contraindications. It is not always followed by death, and in some cases it seems even to have saved the patient; but fortunate results are only observed when a very small quantity of blood has been injected. It is not by its globules, by the elements of nutrition which it furnishes to the tissues, that injected blood acts, but by a general dynamic reaction which it induces by its contact with the endothelium of the vascular system. Ether injected into the cellular tissue produces the same reaction, arousing the exhausted organic forces. In presence of the difficulty of the operation and the defects of the apparatus in use, Prof. Verneuil prefers the ether injections all the more, as he does not believe that there exists a case on record proving that transfusion has succeeded where all other means have failed.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 9, 1882.

BIRTHS.

Births of Boys, 1264; Girls, 1302; Total, 2566.
Corrected weekly average in the 10 years 1872-81, 2585·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	711	611	1322
Weekly average of the ten years 1872-81, corrected to increased population ...	742·3	664·8	1407·1
Deaths of people aged 80 and upwards	...	...	47

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple, continued Fever.	Diarrhœa.
West	669633	...	1	4	1	3	...	...	...	8
North ...	905947	3	6	15	8	9	...	4	2	19
Central ...	2·2238	...	5	3	1	1	...	1	...	9
East	692738	...	10	7	4	6	...	...	...	24
South	1265927	6	7	9	3	8	...	6	2	35
Total	3816483	9	29	38	17	27	...	11	4	95

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·027 in.
Mean temperature	57·3°
Highest point of thermometer	71·1°
Lowest point of thermometer	43·8°
Mean dew-point temperature	50·7°
General direction of wind	N.E.
Whole amount of rain in the week	0·31 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 9, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Sept. 9.	Deaths Registered during the week ending Sept. 9.	Annual Rate of Mortality per 1000 living, from all Causes.	Temperature of Air (Fahr.) Highest during the Week	Lowest during the Week	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2566	1322	17·7	71·1	43·8	57·3	14·04	0·34	0·86
Brighton ...	109595	70	40	19·0	68·7	49·0	58·1	14·50	0·30	0·76
Portsmouth ...	129918	106	56	22·5	...	...	...	...	...	...
Norwich	88821	63	36	21·2	...	...	...	...	...	...
Plymouth	77149	44	28	19·6	69·0	47·0	55·8	13·23	0·09	0·23
Bristol	210134	147	73	18·1	65·0	42·8	54·3	12·39	0·59	1·50
Wolverhampton .	76756	67	28	19·0	64·8	42·5	53·0	11·67	0·73	1·85
Birmingham ...	408532	243	181	23·1	...	...	...	...	...	...
Leicester	126275	92	33	13·6	...	...	...	...	...	...
Nottingham ...	193573	132	75	20·2	67·4	39·0	54·4	12·44	0·80	2·03
Derby	83587	57	32	20·0	...	...	...	...	...	...
Birkenhead ...	86545	48	39	23·0	...	...	...	...	...	...
Liverpool	560377	410	281	26·2	65·4	45·3	53·6	12·01	0·09	0·23
Bolton	106767	85	34	15·6	64·5	41·9	52·5	11·39	0·25	0·63
Manchester ...	349211	220	153	23·5	...	...	...	...	...	...
Salford	184104	123	81	23·0	...	...	...	...	...	...
Oldham	115572	78	39	17·6	...	...	...	...	...	...
Blackburn	106460	76	44	21·6	...	...	...	...	...	...
Preston	97656	11	43	24·0	...	...	...	...	...	...
Huddersfield ...	83418	81	26	16·3	...	...	...	...	...	...
Halifax	74713	37	31	21·6	...	...	...	...	...	...
Bradford	200158	117	62	16·2	65·3	42·9	54·4	12·44	0·27	0·69
Leeds	315998	219	126	20·8	67·0	41·0	54·9	12·72	0·32	0·81
Sheffield	240516	179	103	18·5	65·0	38·5	53·9	12·17	0·25	0·63
Hull	158814	103	56	18·3	72·0	35·0	54·7	12·61	0·31	0·79
Sunderland ...	119065	95	69	30·2	74·0	42·0	57·2	14·00	0·07	0·18
Newcastle	147206	113	68	24·4	...	...	...	...	...	...
Cardiff	83724	77	34	21·5	...	...	...	...	...	...
For 28 towns ...	8469571	5560	3222	19·9	74·0	35·0	54·9	12·72	0·34	0·85
Edinburgh	232440	144	65	14·6	...	...	...	...	...	...
Glasgow	514048	326	225	22·8	...	...	...	...	...	...
Dublin	348293	197	184	27·6	68·0	35·8	53·2	11·78	0·10	0·25

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·03 in. The lowest reading was 29·44 in. at the beginning of the week, and the highest 30·22 in. on Friday morning.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—During the past year, the following candidates received degrees in Medicine and Surgery:—

THE DEGREE OF M.D.

George Ackroyd, M.B., C.M., Streatham; Edwin Atherstone, M.B., C.M., London, Arthur George Blomfield, M.B., Devon and Exeter Hospital; Alexander Boswell, M.B., Ashbourne, Derbyshire; William Hampden Brodie, M.B., C.M., Aberdeen; Peter Burgess, M.B., C.M., Ballindalloch; Colin M'Iver Campbell, M.B., C.M., Durham County Asylum; William Clark, M.B., C.M., Orroroo, South Australia; Rashell Thomas Davison, M.B., Battle, Sussex; John Davy, M.B., C.M., Halifax; John Durno, M.B., C.M., Kemnay; Frederick Hawes Elliott, M.B., C.M., Andover, Hants; John George Hall, M.B., C.M., Aberdeen; John Harris, M.B., C.M., Newcastle, New South Wales; Herman John Liebstein, M.B., C.M., London; Adam Corbet Lyon, M.B., C.M., Rillington, Yorkshire; Coll Reginald Macdonald, M.B., C.M., Beith, Ayrshire; William Macdonald, M.B., C.M., Inverness; John Alexander MacWilliam, M.B., C.M., London Temperance Hospital; James Frederick Parry M'Connell, M.B., C.M., Calcutta; Satish Chandra Mukhopadhyay, M.B., C.M., Calcutta; James Allan Philip, M.B., C.M., Mavisbank, Polton; Henry Tolver Preston, M.B., C.M., Stanningley, Leeds; Arthur Purkiss, M.B., C.M., West Brixton, London; William Reid, M.B., C.M., Aberdeen; John Shepherd Spence, M.B., C.M., Ballater; Livington Gray Thompson, M.B., C.M., Tasmania; John Thomson, M.B., C.M., Kendal; John Coatsworth Watson, M.B., C.M., Sunderland; Joseph Watt, M.B., C.M., Kinnairdy, Huntly; William Edward Webb, M.B., C.M., Burnley, Lancashire; Charles Henry Welford, M.B., C.M., Sunderland.

The Thesis by John Alexander MacWilliam, M.B., C.M.—Part I., "On the Cardiac Muscular Fibre in the various Classes of the Animal Kingdom"; Part II., "On the Diaphragmatic Muscular Fibre in the various Animals"—was considered deserving of the highest commendation.

THE DEGREES OF M.B. AND C.M.

Thomas Cochrane Anderson, M.A., Marnoch, Banffshire; John Barrett, P. and O. Service; Henry Brine Blunt; James Bremner, Grange, Keith; Philip Sebastian Brito, Ceylon; John William Collie, Aberdeen; Robert John Collie, Aberdeen; Alexander Cran, Cabrach, Banffshire; Albert George Cunningham, Bristol; James M'Kenzie Davidson, St. Domingo, Buenos Ayres; Alexander Duncan, Torphins, Aberdeenshire; Arthur William Eddie, Aberdeen; Thomas Wardrop Griffith, Aberdeen; Clarence William Haig-Brown, Godalming, Surrey; David Henderson, Watten; Joseph Willoughby Hodgson, Brighton; William Reid Holmes, Aberdeen; John Jenkyns, Aberdeen; George David Knight, Skene, Aberdeenshire; George Herbert Le Mottée, Guernsey; William Smith Lunan, Aberdeen; James Alexander Macdonell, Dufftown; Alfred Alexander Mackie, Aberdeen; Charles Mayne Maxwell, Hobart, Tasmania; John Masson, Banchory-Ternan; James Irvine M'Arthur, New Deer; David Reid M'Kinnon, Aberdeen; Alexander M'Lean, M.A., Coull, Aberdeenshire; James Middleton, Auchindoir; Arthur Andrew Morrison, M.A., Aberdeen; James Robert Nicoll, M.A., Rhynie; James Petrie, Rhynie; Henry Astley Phillips, London; Arthur Rannie, Chatham, Canada West; John Moysey Rattray, M.A., Aberdeen; Donald Reid; John Reid, M.A., Portsoy; Charles Samuel Alfred Rigby, Preston; Frederick William Robinson, Huddersfield; William Pyle Ross, M.A., Aberdeen; Alexander Wilson Russell, M.A., Insch; Carrapiet John Sarkies, Calcutta; Benjamin Scott, Aberdeen; William Sinclair, Nigg; John Taylor, Stonehaven; Thomas Pickthorn Thomson, Gartley; John Walker, St. Vincent, West Indies; Richard Rose Weir, Elgin; John Kennedy Will, M.A., Cullen; James Wilson, M.A., Rhynie; John Henry Wilson, Warwick; John Dover Woodman, Wing, Bucks; Martensz James Wright, Colombo.

Of the above-named candidates, Thomas Wardrop Griffith and George David Knight received their degrees in Medicine and Surgery with highest academical honours; and James Bremner, Philip S. Brito, Alexander Cran, David R. M'Kinnon, John Taylor, and James Wilson, M.A., received their degrees in Medicine and Surgery with honourable distinction. The John Murray Medal and Scholarship was awarded to Thomas Wardrop Griffith as the most distinguished graduate of his year. At the same time, Henry Herbert Brown, John Tasman Waddell Leslie, and Francis Joseph Hudson were certified as having passed all the examinations, but did not graduate; and the following candidates are now declared to have passed the First Division of the First Professional Examination:—

Charles Mitchell Aird, Alfred William Alcock, Alexander de Wet Allan, Charles Spencer Anderson, Matthew F. Anderson, Alfred Tennyson Brown, David Macdonald Brown, William Robert Cheves, John Christie, John Stuart Davidson, John Charles Grant Duffus, John Duncan, Leslie Durno, George Forbes, John Francis Scott Fowler, James Galloway, William Stuart Geddie, David Gill, George Gordon, William Henry Gray, George Alexander Gruer, Geo. Nicol Henry, Francis Grice Jones, Geo. Alexander Kelman, John Marshall Lamb, Philip James Lumsden, John Mackenzie, Archibald D. Mackinnon, Andrew A. Maclennan, Farquhar MacRae, John Marsden, Alexander Milne, George Leslie H. Milne, James Black Milne, William Vincent Morgan, James Murray, Thos. George Paterson, Arthur Edward Patterson, Patrick Whyte Rattray, John Reid, Cecil Robertson, William Robertson, Hugh Ross, Frederick Ruxton, Geo. Scott, Alexander Simpson, David Simpson, John Rutherford Skinner, J. Duncan Thomson, James Shirran Walker, John Watt, Reginald Graham Wills.

The following candidates to have completed the First Professional Examination:—

George Henry Allden, Frank Hay Cantlie, William Ronaldson Clark, James Will Cook, George Burnett Currie, John Charles D. Irvine, James Marr, James Mitchell Munro, James Murray, Irvine Kempt Reid, Alfred Ernest Roberts, John Russell, Alexander Philip Thom, John Mitchell Trail, Vincent Wing Twining, James Will.

The following candidates to have passed the Second Professional Examination:—

Robert Milne Beaton, Henry Cook, Sylvester John Cole, Andrew Hunter Cowan, Alexander Cowley, Francis Falconer, William Revely Forster, George Grant, John Inglis, Louis Joseph, William Kelty, Alexander Walker Knox, William Barclay Livermore, Charles Robert Lyall, William McKenzie, John Norman E. Maclennan, William Moir, James Murray, Alexander Nicoll, James Robert Purdy, Alexander Rennie, James Alex. Ross, John George Scroggie, Patrick George Simpson, William John H. Sinclair, James Struthers, William Sutherland, James Taylor, Alexander Philip Thom.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on August 31:

Batt, Richard Bush Drury, 215, Camden-road, N.W.
Kirk, Thomas Deck, Creavory, Antrim, Ireland.
Serres, John James, Colchester House, Anerley.
Whitcombe, Philip Percival, Gravesend.

The following gentleman also on the same day passed his Primary Professional Examination:—

Llewellyn, James Davies, London Hospital.

The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on September 7:—

Church, William, Hereford-road, Bayswater.
Hull, Walter, Acton, Middlesex.
Larder, Herbert, Denmark-hill, Wimbledon.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bullock, Thomas Warren, St. Thomas's Hospital.
Jefferies, Horace, Queen's College, Birmingham.
Plummer, Henry George, Guy's Hospital.
Mander, Percy Robert, Westminster Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

J. PAUL BUSH, M.R.C.S. Eng., L.S.A. Lond.—House-Physician to the Bristol Royal Infirmary, *vice* Dr. Watson, resigned.

BIRTHS.

BEAMAN.—On September 1, at Bedford, the wife of Brigade-Surgeon A. H. Beaman, of a daughter.

JACKSON.—On September 12, at Lansdowne House, Tottenham, the wife of G. H. Jackson, jun., M.R.C.S., of a son.

KESTEVEN.—On September 6, at 401, Holloway-road, N., the wife of W. Henry Kesteven, M.R.C.S., of a son.

PARKES.—On September 5, at 6, Osnaburgh-street, Regent's-park, N.W., the wife of Louis Parkes, M.B., of a daughter.

REID.—On September 5, at 12, Bridge-avenue, Hammersmith, the wife of John Reid, M.D., of a daughter.

SEMON.—On September 9, at 59, Welbeck-street, Cavendish-square, W., the wife of Felix Semon, M.D., M.R.C.P., of a son.

SPENCER.—On September 7, at Albion-road, Stoke Newington, N., the wife of E. R. Spencer, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

CLARKE—JUKES.—On September 12, at Hampstead, Fincastle George Barlow Clarke, M.D., to Kate Blanche d'Almaine, daughter of Miles Prendergast Jukes, Esq., of 38, Belsize-park, N.W.

CLOUGH—CREE.—On September 7, at St. John's Church, N., Morley Eddison Clough, Esq., of Hambledon, Hants, to Annette, daughter of Edward H. Cree, M.D., Deputy Inspector-General of Hospitals and Fleets (retired).

FRANK-PAYNE—MACPHERSON.—On September 2, at Kensington, Joseph Frank-Payne, M.D., Fellow of Magdalen College, Oxford, and Assistant-Physician to St. Thomas's Hospital, to Helen Curtis, daughter of John A. Macpherson, Esq., of Umina Toorak, Melbourne, and 23, Pembridge-crescent, Bayswater.

HALLETT—PRICE.—On September 6, at Kimbolton, Henry Arthur Hallett, M.D., to Mabel, daughter of the Rev. E. H. Price.

HOWE—LE FEAUX.—On August 30, at Llanidloes, Jonas Howe, L.R.C.S., of Castle House, Llanidloes, to Emma Elizabeth, daughter of William Le Feaux, Esq., of Penrallt House.

LIEBSTEIN—FLETCHER.—On September 2, at Bournemouth, Hermann Liebstein, M.D., of Drayton-park, London, to Jeannie, daughter of the late Rev. Joseph Fletcher, Esq., of Christchurch, Hants.

MOLINEUX—FINCHER.—On September 2, at Hastings, Sussex, Edward Molineux, L.R.C.P., M.R.C.S., to Isabella Rosalind, daughter of the late Rev. J. Guillemard Fincher, rector of St. Albans, Manchester.

MURRAY—MACKAY.—On August 30, at Inverness, R. D. Murray, M.B., Surgeon H.M. Bengal Army, to Mary McInnes, daughter of Deputy Surgeon-General Mackay, M.D., H.M. Indian Army (retired).

PEIRCE—FEARNLEY.—On September 5, at Christ Church, Moreton, Francis Peirce, M.D., F.R.C.S., of Hoylake, Cheshire, to Rosa, second daughter of the Rev. Matthew Fearnley, M.A., rector of the parish.

PERRY—DONALDSON.—On September 5, at Bath, Deputy Surgeon-General W. Perry, late Royal Artillery, to Adeline Louisa, daughter of the late Rev. J. W. Donaldson, D.D., formerly Fellow of Trinity College, Cambridge, and Classical Examiner to the University of London.

PILLEAU—JOHNSTONE.—On September 5, at St. George's, Hanover-square, Henry Pilleau, Deputy Inspector-General of Hospitals, to Mary, widow of Hugh Edwards Johnstone, Esq., late of Broncroft, Salop.

SEWELL—KEMPSTER.—On August 30, at Battersea, William Sewell, Esq., of 1 and 2, Queen Anne-terrace, Battersea-park, to Kate Beatrice, daughter of W. H. Kempster, L.R.C.P., of Oak House, Battersea.

SOUTHAM—HUGHES.—On September 7, at Staverton, South Devon, Frederick Armitage Southam, F.R.C.S., of Pendleton, Manchester, to Amy Florence, daughter of the Rev. J. B. Hughes, vicar of Staverton and Rural Dean of Totnes.

THEOBALDS—WOOSNAM.—On September 6, at Weston-super-Mare, Surgeon-General J. R. Theobalds, retired list Madras Army, to Esther, daughter of the late Major-General J. B. Woosnam, of the Bombay Horse Artillery.

TWINING—SWAINSON.—On September 8, at Portsmouth, Carlisle, son of Edward Twining, M.R.C.S., of The Chestnuts, Walthamstow, Essex, to Elizabeth Jones, third daughter of the late William Swainson, Admiralty solicitor, Portsmouth.

WATSON—AUSTIN.—On September 2, at Kensington, Forbes Watson, M.D., late of the India Office, to Amelia Anne, daughter of the late Major Thomas Austin, F.G.S., of Redland, Bristol.

WILSON—WARD.—On August 29, at Maidenhead, Joseph Wilson, M.D., 42nd A.L.I., to F. Gertrude, daughter of Robert Arthur Ward, Esq., solicitor, of Maidenhead.

DEATHS.

BADDELEY, GEORGE AUGUSTUS, M.R.C.S., at Gnosall, Staffordshire, on September 8, aged 58.

BENSLEY, CATHERINE, wife of Surgeon-Major E. C. Bensley, H.M.I. Army, at 3, Strathmore-gardens, Kensington, on June 30, in the 37th year of her age; also, on August 14, Lilian Maud, infant daughter of the above, aged one year and seven months.

BOWEN, FREDERICK PERAY, M.R.C.S., L.S.A., at Ivy Cottage, Harrow-on-the-Hill, in his 87th year.

BURNETT, AGNES ANN, wife of James Compton Burnett, M.D., at Woodridings, Pinner, on September 8.

CARTER, CHARLES HUNTON, son of Thomas Carter, L.R.C.P., M.R.C.S., of Richmond, Yorkshire, on August 28, aged 13.

DOLTON, W. B., M.D., of 39, Lee-road, Blackheath.

GROSS, CONSTANCE, infant daughter of Charles Gross, L.R.C.P., etc., Medical Superintendent at St. Saviour's Infirmary, Westmoreland-road, Walworth, S.E., on September 5.

HAWARD, WALLACE, Deputy Surgeon-General, at Little Blakenham, Ipswich, on August 28, aged 51.

LAWRENSON, JOHN CROFTON, son of Fleet-Surgeon R. C. P. Lawrenson, R.N., at Park House, Furbrook, near Portsmouth, on August 22, aged four months.

MORGAN, T. E., L.R.C.P., M.R.C.S., Bombay Medical Service, on board the P. and O. mail steamer *Sutlej*, while on his passage home from Bombay, on August 30.

PITMAN, HENRY, Deputy-Inspector-General of Hospitals, Indian Army (retired), at Wyborne, Cheltenham, on September 1, aged 64.

REDWOOD, LEWIS, M.R.C.S., at The Lawn, Rhymney, on August 30, aged 73.

WHITE, RICHARD, M.R.C.S., formerly of Portsmouth, at Snodland, Rochester, on August 28, aged 88.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

HAMPSTEAD PROVIDENT DISPENSARY, NEW END.—Medical Officer. Candidates must be legally entitled to practise both medicine and surgery by being registered under the Medical Acts. The selected candidate must reside in the neighbourhood of Hampstead. Applications, with evidence of qualification, to be sent to the Secretary, 23, High-street, Hampstead, on or before September 23.

LOYAL UNITED BRETHREN SOCIETY, BROAD-STREET, BLOOMSBURY.—Surgeon. (*For particulars see Advertisement.*)

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer. (*For particulars see Advertisement.*)

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY HATCH.—Assistant Medical Officer. (*For particulars see Advertisement.*)

ST. GEORGE, HANOVER-SQUARE, PROVIDENT DISPENSARY, MOUNT-STREET.—Resident Medical Officer. The salary last year £214 4s. 3d. Candidates must be doubly qualified, duly registered under the Medical Act, about thirty years of age, and unmarried. Applications, with testimonials and references, to be sent to G. W. Leah, jun., 73, Park-street, W. (from whom all further information can be obtained), not later than September 30.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM.—Assistant Medical Officer. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Leeds Union.—Mr. C. Jack has resigned the Headingley District: area 3358; population 19,138; salary £55 per annum.

Manchester Township.—The Second District is vacant by the death of Mr. O. Dean; salary £220 per annum.

Newport (Salop) Union.—The Gnosall District is vacant by the death of Mr. G. A. Baddeley: area 14,543; population 2591; salary £30 per annum.

Prescot Union.—Mr. W. J. Tattersall has resigned the Woolton District: area 4454; population 6519; salary £30 per annum. Also the Hale District: area 6880; population 2118; salary £8 per annum.

Richmond, Yorks Union.—Mr. E. T. Atkinson has resigned the Workhouse: salary £25 per annum. The Richmond Town District: area 18,428; population 6495; salary £55 per annum. And the Richmond Rural District: area 12,559; population 930; salary £10 per annum.

APPOINTMENTS.

Banbury Union.—James A. B. Thompson, M.C., M.D. Glasg., to the Middleton Cheney District.

Bethnal Green Parish.—John W. Sanders, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., as Assistant Medical Officer at the Workhouse.

Fareham Union.—Francis Rawle, M.R.C.S. Eng., L.S.A., to the Titchfield District.

Liverpool Parish.—William T. Crew, F.R.C.S. Eng., L.R.C.P. Lond., L.S.A., as Assistant Medical Officer at the Brownlow Hill Workhouse.

Llandilofawr Union.—Howell Rees, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Quarter Bach District.

Ongar Union.—Thomas Spurgin, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

Reading Union.—William Richardson, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse.

St. Thomas's Union.—Thomas G. C. Evans, M.R.C.S. Eng., L.R.C.P. Edin., to the East Budleigh District.

Wilton Union.—Thomas R. Denham, M.D., M.C. Queen's Univ. Ire., to the Ireby District.

Wincanton Union.—Henry McClure, M.D., M.C. Queen's Univ. Ire., to the Queen Camel District.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

AN APPEAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow us to appeal to the profession on behalf of the family of the late Dr. Thompson, of Beverley? This gentleman died, after a short illness, from inflammation of the lungs, brought on by exposure while in the performance of his duties; leaving a wife and six daughters, the youngest about twelve months old, almost destitute. We shall be glad to receive any subscriptions that may be sent.

We are, &c.,

HENRY WALKEN, M.D.
E. D. TOMLINSON, Brigade Surgeon (half-pay).

Beverley, September 13.

"HÆMATOPHILIA."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—During the recent illness of the Duke of Albany the newspapers informed us that he was the subject of *hæmatophilia*. May I ask some correspondent of the *Medical Times and Gazette* to tell me what is the etymology of this word? *Philia* is friendship, and *hæmatophilia* would be a "friendship of blood." But what would that mean? And how could such a term be applied to a disease?

I am, &c.,
J. D.

Dr. E. M. Eaton, Chattanooga, Tennessee, U.S.A.—Letter and enclosure received.

St. Bartholomew's Hospital.—Invitations have been sent as usual to several gentlemen to attend the annual dinner of old students, which, by permission of the governors, will be held in the Great Hall of the Hospital on Monday, the 2nd prox., when Dr. R. Martin will take the chair.

A Local Board Sanitary Order Contested.—The Middlesex magistrates, after a severely contested suit, have affirmed the decision of the Local Board at Chiswick, ordering the removal of four cottages at Farnham Green, as unfit for human habitation. The evidence of experts was, as usual, conflicting; but one of the magistrates having been deputed to make a personal inspection of the premises, the Court came to the conclusion that their unfitness for human occupation was proved. It was stated in evidence that hundreds of houses in the district were in no better condition than these cottages.

Mr. C. Wimer.—We cannot say what the duties of the Medical Inspector of the Burials Acts Office are. The appointment is held by Mr. N. W. Hoffman, M.A., M.B., at a salary of £500 per annum.

Unwholesome Ginger-Beer.—Several cases of typhoid fever in the Evesham Rural Sanitary District have been traced, it is reported, to drinking ginger-beer made with water from a contaminated well. The well has been closed since it was suspected as the cause of the outbreak. A periodical analysis of the water of public wells would be a useful precaution against the propagation of disease from such a source.

M.D., Liverpool.—Competitors for the Collegial and Jacksonian Prizes of the Royal College of Surgeons must be members of that institution.

Stratford-on-Avon.—The Town Council has resolved to acquire certain land belonging to the Great Western Railway Company, situated on the banks of the Avon, adjoining the Shakespeare Memorial Buildings, for the purpose of adapting it as a public garden and recreation-ground for the free use of the inhabitants in perpetuity. The site is that upon which the celebrated Garrick Jubilee was held in 1769.

Bibliopole, Notting Hill.—Buchan's "Domestic Medicine" was published in 1769, and so great was its popularity that as many as nineteen editions of the work, amounting to 80,000 copies, were sold during the Doctor's lifetime.

Entomologist.—The new Technological and Industrial Museum at Sydney will include a department of Economic Entomology, the specimens being so arranged as to enable the public to discriminate between insects injurious to man, and such as work for his benefit.

A Sanitary Prosecution: a Fatal Objection.—A bailiff of the Haslingden County Court was summoned by the Corporation for a breach of the Public Health Acts. Defendant levied a distress in a house where there was a fever, and took the goods, without having them disinfected, and lodged them in a room in a public-house. The Registrar of the County Court took the objection that a month's notice of action had not been served, as the law required. This point was held to be fatal to the summons, and the case was dismissed.

French Patients and Doctors.—It has been decided in Paris that there can be no binding agreement between a patient and his doctor, the former not being regarded as a free agent.

A Hospital Dispenser.—An official has been charged at the St. Albans Police-court with forging a receipt for £21 9s. 2d., thus defrauding the St. Albans Hospital and Dispensary Committee. He was the dispenser at the Hospital, and it was his duty to receive money for and pay certain accounts at the direction of the Committee. In respect to one of these accounts the present charge was preferred. The accused was remanded.

P. P., Warwickshire.—It is estimated that the recent Birmingham Musical Festival will benefit the funds of the General Hospital to the amount of nearly £5000.

A Drunkards' List.—It is announced in the *Journal d'Alsace* that, in pursuance of a recent decree, the authorities of the Haute-Alsace have issued a list of the drunkards in the town of Sainte Marie aux Mines and the neighbourhood. The number of these persons is thirty-one; the youngest being twenty-three years of age, and the oldest sixty-eight. Innkeepers and others are, in future, forbidden to sell intoxicating drinks to any of those who are thus advertised.

Bournemouth.—This winter resort this year has suddenly developed into a summer watering-place. The town has been filled with visitors. It is proposed to shorten the distance by railway from London—a scheme which, if carried out, will render Bournemouth accessible from London by a journey of two hours and a half.

Bosh Butter and Oleo-margarine Cheese.—A petition was signed at a meeting of the Cheshire Dairy Farmers' Association, under the presidency of Lord Combermere, for presentation to Parliament, pointing out the great injury that is being sustained by the British dairy interest in consequence of the manufacture of bosh butter, and the importation of oleo-margarine cheese; praying the Legislature to compel manufacturers of those articles, and those engaged in the sale thereof, to describe them by names that shall indicate their real nature, and not allow them to be sold, as now, under the names of butter and cheese.

A Presentation.—The officers and staff of the Earlswood Idiot Asylum have made a presentation to Dr. Grabham, on his resigning the post of Medical Superintendent of the institution, which he had held for many years. Dr. Grabham sails shortly for New Zealand, having been appointed Inspector of Lunatic Asylums in the colony.

Female Medical Students, Russia.—It is officially announced that, by order of the Emperor, the admission of new pupils to the course of medical training for women at the Nicolai Military Hospital in St. Petersburg will be discontinued after the present term. The students will, however, be allowed to conclude their course, after which the clinical instruction for women at the Hospital will be abolished. The educational appliances, library, etc., are to be handed over either to the Military Academy of Medicine or to any establishment that may be prepared to open courses of medical instruction for women.

Feltham.—"The Limes" has been opened as a Training and Convalescent Home in connexion with Mrs. Hilton's Crèche, Orphan Home, and Infant Infirmary in Stepney-causeway.

The Dangers of the Laundry.—The Exeter Town Council have prosecuted a laundress, who, with four other persons, occupied three rooms, one of which was also used as a laundry, and in another was a child ill with scarlet fever. The woman's time was occupied in nursing the sick child and washing the clothes she received from several families. She would not allow her child to be removed to the sanatorium, but the magistrates insisted on this being done, at the same time pointing out that the defendant was liable to a fine of £10. The circumstances of the case merited the imposition of some fine as a warning to others.

A. N. T., Marylebone.—Yes; M. Turpin has laid before the French Academy of Medicine a series of several hundreds of pigments suitable for children's toys, and all of them free from poisonous matter.

Sanitary By-laws, Crewe.—A discussion took place at the last meeting of the Town Council of Crewe, with respect to the new lodging-house by-laws adopted by the Corporation, which, it was said, had produced a great deal of ill-feeling in the borough. It appeared there was a large number of houses where one or two lodgers were taken in, and an impression had got abroad that, in consequence of the new by-laws, persons would have to obtain a licence, and then their houses would be brought within the Common Lodging-house Act. The Deputy Mayor said that the main object of the regulations was to prevent overcrowding and to compel the notification of the existence of infectious disease. The registration of lodging-houses would not bring the parties under the Common Lodging-house Act, and the power vested in the medical officer and sanitary inspector to visit these registered houses at any time would not be exercised without good and sufficient ground.

A New Magistrate.—Mr. Thomas Brooks Bumpsted, surgeon, has been appointed a magistrate for the borough of Cambridge.

The Princess Alice Memorial Hospital, Eastbourne.—The Queen has presented this institution with a number of prints, including portraits of herself, the Prince Consort, the Prince and Princess of Wales, and the late Princess Alice, to be hung up in the wards when the building is completed.

Inoculation of Carbuncle Disease on Animals.—Experiments made by the Naples Superior School of Veterinary Medicine as to the efficiency of vaccinating animals with the carbuncle disease has resulted as fellows:—Out of seven sheep vaccinated, four died; and of seven other sheep who were not vaccinated and had caught the disease, five died. Of two calves, the one vaccinated resisted infection, while the one not vaccinated caught the disease and died.

Coroners' Inquests in 1881.—From an official return it appears that in England and Wales last year there were held 27,466 inquests. In the preceding year the number was 26,588. The cost of these inquiries last year, including salaries, etc., was £88,229 11s. 8d., being an average of £3 4s. 2d. each.

COMMUNICATIONS have been received from—

The Secretary of the Apothecaries' Hall, London; The Director-General of the Naval Medical Department, London; Mr. Wm. Frazer, Aberdeen; The Director-General of the Army Medical Department, London; The Clerk to the Vestry of St. Pancras, London; Lieut.-Col. Duncan, London; Mr. J. Chatto, London; Dr. E. F. Willoughby, London; Mr. Frank H. Judge, London; The Sanitary Commissioner, Punjaub; The Secretary of State for India, London; Mr. Dimont, Alnwick; Surgeon-General C. R. Francis, Clapham; Dr. Mercier Stone Asylum, Dartford; Mr. J. T. W. Bacot, Seaton, Devon; Dr. R. H. Semple, London; Dr. W. D. Stone, London; Dr. Crichton Browne, London; Messrs Longmans and Co., London; The Registrar-General for Scotland; Dr. J. C. Lucas, Ahmedabad, India; Dr. Wm. Alexander, Liverpool; Dr. T. K. Chambers, Esher, Surrey; Mr. A. W. Lowndes, Liverpool; Brigade-Surgeon E. D. Tomlinson, Beverley.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Archives Générales de Médecine—Glasgow Medical Journal—Monthly Homœopathic Review—Edinburgh Medical Journal—Veterinarian—Nederlandsch Tijdschrift voor Geneeskunde—Ciencias Médicas—Revue Mensuelle de Laryngologie et d'Otologie—Zeitschrift für Diagnostik und Therapie—Students' Journal and Hospital Gazette—Analyst—Journal of Science—Alienist and Neurologist—Birmingham Medical Review—Indian Medical Gazette—Therapeutic Gazette—Practitioner—Midland Medical Miscellany—Nottingham Daily Guardian, April 27, August 30, September 5 and 7—La Oftalmologia Practica—L'Impartialité Médicale—Journal de Saxon—Royal London Ophthalmic Hospital Reports, vol. x. part 3—Revista de Medicina—Canadian Journal of Medical Science—Philadelphia Medical Times—Echo, August 25 and 29, September 1—Boston Journal of Chemistry—Weekblad, September 2 and 9—Western Medical Reporter—Dublin Journal of Medical Science—Cape Argus, August 17—Pictorial World.

APPOINTMENTS FOR THE WEEK.

September 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

18. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

20. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

22. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ORIGINAL LECTURES.

LECTURES ON OPHTHALMOLOGY.

DELIVERED AT GUY'S HOSPITAL.

By CHARLES HIGGENS, F.R.C.S.E.,
Ophthalmic Surgeon, and Lecturer on Ophthalmology in the Medical School.

LECTURE VII.

IRITIS AND GLAUCOMA.

IRITIS may have a local or constitutional cause, the latter being the more common.

Local Causes.—Irritation by foreign bodies in the conjunctival sac or cornea, by granular lids or inverted lashes, affecting primarily the conjunctiva or cornea, the iritis being secondary.

Injuries of the iris itself by operations; or accidents with or without lodgment of a foreign body on its surface, or in its substance; pressure by a swollen crystalline lens, as when that body has been wounded and a traumatic cataract formed; exposure from perforation of the cornea.

Constitutional Causes.—Debility following acute diseases, or from over-lactation, etc.; certain specific diseases, as syphilis, rheumatism, and gout.

Symptoms.—Certain symptoms are met with in most cases of iritis. These are—change of colour, cloudiness and loss of polish of the iris; sluggishness or complete immobility and (as a rule) contraction of the pupil; injection of ciliary region (ciliary redness), watering of the eye, and impairment of vision. Other symptoms met with occasionally are—pain, intolerance of light, new growths or formation of pus upon the iris, irregularity in outline of the pupil, slightly increased tension of the globe, the appearance of bloodvessels upon the iris, and opacity of aqueous humour.

Forms of Iritis.—Iritis has been divided into a great number of different forms, the basis of division being founded on the constitutional or local cause, or upon the nature of the inflammatory products. Thus we hear of syphilitic, rheumatic, and gouty iritis; traumatic iritis; serous, plastic, and suppurative iritis.

I think we may be content with three forms of the disease, viz.:—1. Simple iritis; 2. Rheumatic or recurrent iritis; 3. Syphilitic iritis. Between these three there are, as a rule, no very strongly marked lines of distinction, but cases more or less typical do occur, between which you should know the points of difference.

Simple Iritis generally depends on some of the local causes already mentioned, or an attack may come on during acute inflammation of the conjunctiva, or be caused by exposure to cold—more especially cold winds or draughts.

All the more constant symptoms of iritis are present, often accompanied by more or less severe pain. An uncomplicated case may last from two to three weeks or longer. A few adhesions may form between the iris and lens capsule (posterior synechiæ), but the inflammation usually ends in resolution, the iris quite recovering its normal condition. In this as well as in the other forms of iritis, however, the inflammation may run on to the formation of a considerable quantity of new material or into suppuration.

Recurrent or Rheumatic Iritis is said to occur in persons who are subject to attacks of rheumatism or gout, and also in the children of rheumatic or gouty parents. An attack of this form of inflammation presents all the more constant symptoms of iritis, and has one character peculiar to it, viz., its recurrency, some patients having had as many as twenty or more separate attacks. In some cases the attacks observe a remarkable periodicity, recurring regularly at the same time of year. The inflammation appears at times in one eye, at others in the other, or perhaps in both—rarely, however, simultaneously, but at short intervals, the second eye becoming affected long before the first has begun to recover. Recurrent iritis may be accompanied by more or less haziness of the cornea.

In some cases very severe pain of a dull aching character is experienced in the eyeball, forehead, side of nose, and temple; in others the attack is most insidious, the patient's attention not being attracted until a considerable amount of new material has been thrown out, extensive adhesions formed, the sight of one eye become much impaired, and the inflammatory action commenced in the other. The cause of recurrences is not very clear; it may be due to constitutional vice, to synechiæ, or more probably to the two combined.

Syphilitic Iritis.—The syphilitic is perhaps the most common of all the forms of iritis. A typical case presents all the constant symptoms in a very marked degree, the zone of ciliary redness being extremely well defined. There may be, besides, certain peculiar nodular excrescences of a dirty yellow colour (known as lymph nodules), situated on the surface of the iris, or at its pupillary margin, and sometimes extending into the pupil, which is completely blocked by them. These excrescences are syphilitic gummata, and their existence renders the diagnosis of syphilitic iritis certain; they are, however, only occasionally present, and in the greater number of cases we have to take into consideration the patient's previous history, ascertain the existence of other signs of syphilis, and make our diagnosis accordingly. Syphilitic iritis occurs most frequently between the ages of fifteen and forty, but is occasionally met with as a manifestation of congenital syphilis in infants, and may, of course, occur in old people.

Results of Iritis.—In many cases of iritis, especially if *early and properly treated, perfect recovery takes place.* Remember this, as it is to you, as general practitioners, that patients first apply, and the favourable or unfavourable termination of the cases will often depend on the treatment you adopt. In others permanent signs of inflammation are left. The morbid changes most commonly seen are adhesions to neighbouring parts (synechiæ); those most commonly met with being between the iris and lens capsule (posterior synechiæ).

Posterior synechiæ are generally situated at the pupillary margin, and may vary in extent from a few adherent tags of this part only, to complete adhesion of the whole posterior surface of the iris to the lens capsule; this latter condition being known as "total posterior synechia."

Adhesions of the iris to the cornea, "anterior synechiæ" (should they occur as the result of iritis), will be found about its greater circumference.

Closure of the pupil by inflammatory material, *opacities upon the lens capsule* caused by adhesion of the "uvea" detached from the posterior surface of the iris, dense inflammatory deposits in or beneath the capsule, or involving the superficial fibres of the lens itself—"*capsular or pyramidal cataract*," as they are called—may also be met with.

The iris may be found atrophied, so that little of its original structure can be recognised; rigid, or rotten, and very prone to bleed freely on the slightest wound. All these conditions become most apparent when operating upon it. On attempting to perform iridectomy, considerable difficulty will be experienced in removing a portion of the iris, which may be so tough that none can be torn away, so rigid and tightly stretched that it cannot be seized with forceps, or so rotten that only a small portion can be removed, or it may bleed so freely as to prevent the completion of the operation.

Treatment.—In treating iritis we must take care *first* to remove any local cause, such as a foreign body (wherever situated), or opaque swollen crystalline lens, cure granular lids, or remove inverted lashes. *Secondly*, we must endeavour to dilate the pupil. *Thirdly*, to relieve pain. *Fourthly*, we must employ any constitutional treatment that may appear called for. I have already told you how to carry out the first indication when speaking of foreign bodies in the cornea, trichiasis, granular lids, etc. In order to dilate the pupil a few drops of a strong solution (gr. iv. to ʒj.) of sulphate of atropia should be placed between the eyelids by the surgeon himself at each visit, and a weaker solution (gr. ½ to gr. j. to ʒj.) should be given to the patient to use from three to six or twelve times a day. If the case be seen at the commencement, more or less dilatation of the pupil will usually take place; but should the iris have become infiltrated with inflammatory matter, and adhesions formed, little or no effect will be produced; the atropine should, however, be persevered with. Let me impress this necessity for dilating the pupil upon you; it is of the first importance, and, as I have told you already, it is to you that a patient attacked by iritis will

first apply, and it depends in great measure on your treatment in the early stage whether the case is conducted to a favourable termination, or the reverse. Remember, dilate the pupil. If you are doubtful whether the case is one of iritis or not, give the patient the benefit of the doubt: when in doubt use atropine—the cases in which it can do harm are rare, whilst those in which it will do good are common. In cases of iritis with suppuration the eye should be fomented frequently with hot belladonna lotion, and kept bound up with lint soaked in the lotion.

In cases accompanied by much pain, blood should be taken from the temples by leeches or the artificial leech. Atropine may give rise to pain by causing dragging upon adhesions; it should therefore be used with caution in cases where its application is attended by much suffering, and it has no influence on the pupil. Atropine occasionally causes an erysipelatous inflammation of the eyelids and cheeks, known as "atropism." Should this occur the parts should be well smeared with zinc ointment or vaseline, and a substitute found for atropine. There are several drugs which may be used instead of atropine; but, unfortunately, persons who are intolerant of one are not much better off with the others. Nevertheless we must try a solution of daturine, hyoscyamine, sulphate of duboisin, gelsemia, or homatropine, made of the same strength as the solution of sulphate of atropine, or the atropine may be tried in the form of ointment (gr. $\frac{1}{4}$ of sulphate of atropine to $\mathfrak{Z}$j. of vaseline) applied to the inner surface of the lower eyelid two or three times a day.

The eyes should be protected from light by a shade or protector until the inflammation has subsided. Treatment must always be continued until all "ciliary injection" has disappeared.

Of *constitutional remedies* there is none so useful in the treatment of iritis as *mercury*. Now let us consider in what cases it should be given; and first dismiss from your minds all considerations as to whether the iritis be or be not syphilitic. The one indication for the administration of mercury is the existence of lymph on the iris. Do not bother about syphilis, but if you see lymph on the iris give mercury. The drug may be given three times a day, in a pill containing gr. ij. of pil hydrarg. and gr. $\frac{1}{4}$ of pulv. opii. Mercurial inunction or vapour baths may be employed if preferred, but the system should be quickly influenced, and the effect kept up till the lymph has disappeared. If the iritis occur in persons in delicate health, or the inflammation go on to suppuration, tonics—as iron or quinine—should be prescribed, and a plentiful supply of good food given. Should there be much pain, opium must be given, and it is well to prescribe the drug in combination with extract of belladonna or hyoscyamus.

The results of iritis, should they seriously interfere with vision, require the performance of iridectomy or some one of the operations for artificial pupil. Iridectomy should also be performed in cases of recurrent iritis; it frequently (but not always) prevents subsequent attacks.

Glaucoma.—By glaucoma we understand—"A series of morbid changes of the eyeball, the most prominent of which, and apparently that which causes all the others, being an increase of tension of the globe."

The increase of tension is supposed to result from undue accumulation of the intra-ocular fluids, dependent on hypersecretion or deficient removal.

Why the balance between the two processes of secretion and removal of secreted fluid should be disturbed is not very evident. It is believed, however, that the intra-ocular fluids are partly removed by exhalation through the sclerotic and cornea, more especially at their junction at the angle of the anterior chamber, and partly by absorption.

It has been found that in most cases of glaucoma the iris is applied to the cornea in such a manner as to completely block the angle of the anterior chamber, whereby a considerable barrier is placed in the way of removal of fluid through this part.

Other causes are alteration in structure of the cornea and sclerotic, such as may be supposed to occur in advancing age, and analogous to the changes met with in bloodvessels and other parts.

Whatever may be the cause of the deficiency in the process of removal of the intra-ocular fluids, if secretion go on at the usual rate, we shall get an excess, and with it increased tension of the eyeball.

On the other hand, sources of irritation which cause hyper-secretion may set up glaucoma; we meet with it in cases where the lens is swollen, in cases of anterior synechia where there is constant dragging by the iris upon its two attached points, viz, the abnormal adhesion to the cornea and its normal ciliary attachment, which is closely connected with the ciliary body. The ciliary body is the most vascular and highly nervous portion of the eyeball, and any dragging upon it is likely to cause increased secretion of intra-ocular fluids, and with it augmentation of tension of the globe.

Other conditions—as extensive posterior synechia with "exclusion" or complete closure of the pupil, may lead to hyper-secretion, but will also retard removal of fluid by keeping the aqueous humour confined behind the iris, which is pushed forward by it, the anterior chamber becoming very shallow. Glaucoma arising from any of the latter causes, or coming on in the course of iritis, corneitis, or other inflammations of the eyeball, is known as "secondary glaucoma."

Glaucoma may also arise from injury, when it is known as traumatic glaucoma.

Glaucoma is said to be *simple* when the increase of tension progresses slowly and continuously without inflammatory outbreaks; *acute* or *chronic* when attended by attacks of inflammation.

Simple Glaucoma presents no very marked symptoms, its onset being most insidious. Its chief characteristics are—gradual decrease of acuteness of vision, with narrowing of the visual field: impairment of the power of accommodation, causing rather rapid increase of presbyopia, sluggishness of movements of the iris, apparently some haziness of the lens, and some dilatation of the pupil. Increase of tension is probably one of the earliest symptoms, but is very liable to be overlooked until the disease is far advanced, and considerable hardness of the globe has taken place. With the ophthalmoscope, spontaneous pulsation of the retinal arteries may be seen, or pulsation may be produced by very slight pressure upon the globe. The vessels, especially the veins, are thinner on the surface of the optic disc than in the surrounding retina, small retinal hæmorrhages may occur, and the disc itself may be more or less cupped and atrophied. The cup of glaucoma is characterised by a bluish or dusky red appearance of the greater portion of the disc; upon this portion the vessels appear very small and indistinct, or they may be quite invisible; the margin of the disc is white, and the large tortuous retinal vessels are seen curling up over its edge, and appearing on the surface of the retina at a point not continuous with their course upon the nerve surface. Sooner or later, in any form of glaucoma, if relief be not given, the condition known as *absolute glaucoma* is established.

The eyeball becomes stony hard, the pupil widely dilated and fixed, the cornea steamy and anæsthetic, the iris and aqueous humour discoloured, the anterior chamber shallow, and the lens more or less opaque. A few dilated veins may be seen issuing from the globe in the ciliary region; the sclerotic may be somewhat bulged in places and appear bluish in colour; the ocular structures become rotten, the conjunctiva tearing on any attempt being made to seize it with forceps, and if we attempt an iridectomy the iris gives way under the iris-forceps. On examination with the ophthalmoscope, all appears dark behind the pupil, or perhaps a dull-red reflection may be returned from the interior, but no details of the fundus can be made out—all perception of light is lost.

Acute Glaucoma usually commences more or less suddenly, but both it and the chronic form may be preceded by a premonitory stage resembling in its symptoms simple glaucoma. Its outbreak is marked by severe inflammatory symptoms. The patient states that he was seized frequently during the night with sudden pain in the eye. The pain is very severe, and is described as affecting not only the eyeball, but the whole of the corresponding side of the head. The sight of the painful eye is greatly impaired or entirely lost. On examination we find the eyelids slightly reddened and swollen, the conjunctiva somewhat chemosed, and its vessels, together with those situated more deeply in the subconjunctival tissue, enlarged. There may be profuse lachrymation, and often much intolerance of light; the aqueous humour is very probably somewhat turbid.

The pupil is, as a rule, dilated, somewhat irregular, and

fixed, and the tension of the globe is much increased. On examination with the ophthalmoscope, some of the appearances mentioned under Simple Glaucoma may be found; but the media will probably be so hazy as to obscure the parts behind, a dull-red reflection being all that can be made out. The acute symptoms usually pass off in the course of a few days or weeks, leaving the eye more or less permanently damaged. Similar attacks may recur, but more frequently the disease relapses into a chronic state.

There is one form of acute glaucoma, known as "glaucoma fulminans," which is characterised by the extreme suddenness of its onset, the rapid extinction of vision, and the great and rapid increase of tension. In such cases all sight may be irrevocably lost in the course of a few hours. It is, however, astonishing how vision may be restored in some of these apparently hopeless cases by a well-performed iridectomy. The violence of the symptoms in these cases is very probably due to intra-ocular hæmorrhage, the blood being poured out between the sclerotic and choroid.

An attack of "glaucoma fulminans" is sometimes accompanied by severe headache and vomiting, so that we might fall into the error of mistaking such a case for one of cerebral disease or simple biliousness.

Chronic Glaucoma is the form of the disease most commonly met with; it is characterised by the occurrence of slight inflammatory attacks, associated with temporary dimness of vision (transient cloudiness and obscuration of the field), and more or less pain in and around the eyeball. On examination, the tension of the globe is found to be increased, and if the patient present himself during an inflammatory attack, the conjunctiva and subconjunctival tissue are found unduly vascular; the pupil is somewhat dilated, and the movements of the iris extremely sluggish or altogether wanting.

The loss of vision in cases of chronic glaucoma is often attended by somewhat peculiar symptoms. Patients complain that their sight is always somewhat misty; that there is an appearance of a bright halo around a candle or other flame; that they see colours resembling a rainbow, and often of great beauty; and occasionally complaints are made of flashes of light and fiery circles. These latter symptoms are, however, common to all forms of retinal irritation. Vision is always greatly impaired during the inflammatory attacks, and recovers to a certain extent during the remission—never, however, returning to the same condition as before the attack.

The ophthalmoscope shows changes similar to those mentioned under Simple Glaucoma. Glaucoma is essentially a disease of the latter half of life, occurring most frequently between the ages of forty and sixty; but occasionally cases are met with in young adults, or even in children. In these, however, it is usually what I have described as secondary glaucoma. Glaucoma (except it be secondary or traumatic) almost always affects both eyes, not, however, simultaneously, but at more or less considerable intervals.

In order to diagnose glaucoma we must be well acquainted with the method of ascertaining the tension of the globe, and also with the use of the ophthalmoscope. We must also remember that the injurious effects of pressure are evidenced earliest in the peripheral portions of the retina, and must therefore very carefully examine the condition of the visual field in all suspected cases.

Cases of simple glaucoma will frequently be met with in which great contraction of the visual field has taken place, although central vision may still be acute. A symptom already mentioned, but often overlooked, which should lead us to suspect glaucoma, is the rapid increase of presbyopia. Patients affected by the simple or chronic forms of the disease are constantly changing their glasses. They find that those which at first appear to suit well, become useless in the course of a few months.

The apparent haziness of the lens is a symptom requiring special attention, otherwise we may fall into the fatal error of mistaking chronic or simple glaucoma for cataract, and allow the disease to continue unchecked until sight is irrevocably lost. Ophthalmoscopic examination will most probably show that there is little or no real opacity of the lens; this, aided by a careful examination of the tension of the globe and the state of the visual field, should guard us against making so disastrous a mistake. This apparent haziness of the lens is not a part of the glaucomatous process, but merely a natural senile change. You may ask, Why should stress be laid upon it as a symptom? Here is the reason. In normal eyes the pupil becomes contracted as age advances, and the hazy appearance of the lens, although present, is not noticed in its limited area. In glaucoma, however, the pupil is dilated, and the bluish haze becomes very evident, and arrests the attention. And many are the cases I have seen where cataract was diagnosed, and left to become "ripe," with the result that the patients were hopelessly blind.

Treatment.—Glaucoma can be remedied *by operation alone*, and it is our duty to explain to the patient the nature of his case, and to urge upon him most strongly the *necessity* for operative interference.

Patients suffering from glaucoma often evince the greatest unwillingness to undergo an operation. This unwillingness is explained by the fact that during the *remissions* of glaucoma little or no inconvenience is experienced, and moreover, even at the time that an attack of inflammation is present, the sufferer will be encouraged by the hope that the symptoms will pass off (as they, in all probability, have done in previous attacks), leaving the eye but little damaged. Nevertheless, we must always bear in mind that *an operation to be successful must be performed early*, and must not rest satisfied until we have convinced our patient of this. Most patients will readily submit to an operation when one eye has been lost, and the disease has commenced in the other.

Several operations have been practised for the relief of glaucoma, but iridectomy and sclerotomy give the best results.

Iridectomy or sclerotomy, to be effectual, should be performed as early as possible. As a rule, no good is likely to result from an operation in cases where vision has been reduced to bare perception of light; but in acute glaucoma much improvement may take place, even though all perception of light have been lost for some days.

In performing iridectomy for glaucoma we must take care to remove the iris well down to its ciliary border, so as to thoroughly open the angle of the anterior chamber, and to excise a good broad piece. Merely cutting away a portion of iris near the margin of the pupil does no good. Both iridectomy and sclerotomy are easy enough of performance in cases of acute glaucoma, but in those of old standing the structures become so rotten as to render iridectomy anything but an easy procedure, and the anterior chamber becomes so shallow as to render the introduction of the iridectomy or sclerotomy knife extremely difficult.

In cases of glaucoma, where for any reason an operation cannot be performed, we may do much good by the use of sulphate of eserine in solution of gr. iv. to ʒj. of water dropped into the eye three or four times a day. The action of eserine is to contract the pupil, and it probably does good by spreading out the iris and drawing it out of the angle of the anterior chamber, where it is, as it were, rolled up in the widely dilated condition of the pupil met with in glaucoma. Atropine must on no account be used; its action is the opposite to that of eserine—it causes the pupil to dilate still more widely, tends to increase the tension, and aggravates all the symptoms.

Besides using eserine, we must do our best to relieve pain by the use of fomentations of poppy-heads, application of leeches to the temple, and administration of opium. But remember that all these remedies are at the best only palliative; glaucoma can be cured by operation alone, and the sooner you convince your patients of this, the better.

In speaking of simple glaucoma I pointed out to you how it was often mistaken for cataract, and also told you how to avoid making such a mistake.

Another error, the result of which may be most disastrous, is to mistake acute or chronic glaucoma for iritis. Attention to the condition of the pupil and tension of the globe will prevent such a mistake being made.

In primary glaucoma the pupil is fixed or very sluggish and dilated, and the tension of the eyeball is always much above par.

In iritis the pupil is fixed or sluggish, and almost always contracted; and the tension of the eyeball is normal or very slightly increased.

In some cases of secondary glaucoma, where there is, or has been, severe iritis, the condition of the pupil will not be of much assistance, as it will probably be contracted. In such cases we must rely on the tension alone.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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LECTURE XI.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

1. *Parasitic Affections of the Skin.*

B. *Cutaneous Affections due to the presence of Animal Parasites.* (*Skin Diseases caused by Dermatozoa and Epizoa.*)

c. *Phtheiriasis Pubis.*

Parasite—Pediculus Pubis (Phthirius pubis—Morpion).

THIS parasite is met with on *all* hairy parts except the head, but the hair on the pubis and neighbouring parts is its favourite hunting-ground. It is indeed a very curious circumstance that these three varieties of lice should live in such close proximity, and yet in no case leave their own preserves for the purpose of poaching on those of their neighbours—a trait worthy of imitation by the human species. We can understand how one parasite should prefer hairy, and another non-hairy parts, but it is difficult to see how one pediculus should find its appropriate soil on the head alone, while another attacks all hairy parts except the head. Mr. Quekett's explanation is that the crab-louse, owing to the peculiar shape of its claws, is unable to climb up straight hairs to deposit its eggs, and accordingly selects parts where the hair is curly; but, if so, why should we not encounter it on the heads of curly-headed persons?

Characters of the Parasite.—The Pediculus pubis resembles the head-louse in many respects, but its body is much broader and shield-shaped, and there is no distinct separation between the thorax and abdomen. It is studded with small spines, and, besides possessing six feet which resemble those of the other pediculi, it is furnished with eight rudimentary-looking ones, which terminate in bundles of hairs. It does not run about like the head-louse, but grasps the hairs where they emerge from the skin with its forelegs, so that it is very apt to be overlooked, and some difficulty is experienced in extricating it. The nits resemble those of the head-louse, and are attached to the hair in the same way as them, but always close to the exit of the hair from the skin.

The itching leads to scratching, and often small papules are developed, which are red and excoriated; and occasionally an eczematous eruption is induced, the cause of which may be suspected from its situation. An examination will then lead to the discovery of the pediculi lying in close contact with the skin, and of their nits, as well as of reddish particles of faecal matter in the immediate vicinity of the parasites. This affection is met with among all classes of the community, but almost always in adults who have contracted it from others labouring under the disease as the result of impure intercourse, or through the medium of the water-closet.

Diagnosis.—The following points serve to distinguish Phtheiriasis pubis from simple Pruritus:—

Pruritus.	*Phtheiriasis Pubis.*
1. Not contagious.	1. Contagious.
2. No parasite to be discovered.	2. Lice, their nits and faeces, discovered among the roots of the hairs.
3. May affect other regions, though not necessarily.	3. Limited to the pubis or neighbouring parts, or to other parts provided with hair (always excepting the head).
4. Often a very troublesome affection, and requiring constitutional as well as local treatment.	4. Readily cured by local treatment, *e.g.*, a lotion of perchloride of mercury (gr. ij. to ℥j).

Eczema complicating Phtheiriasis pubis is distinguished from simple eczema by the localisation of the eruption, and by the discovery of the pediculi, their nits and faeces.

The *Acanthia lectularia*, or common bed-bug, remarkable for its reddish colour, roundish flattened form, and offensive odour, resides partly amongst the bed and body clothing, but principally in crevices in the woodwork of beds, walls, etc., where it deposits its eggs, and whence it sallies forth to feed upon the blood of its victims. It seems not to be met with in South America, Australia, or Polynesia, but is too common in this country in the habitations of the poor, and it is difficult to extirpate it, because it can resist extreme degrees of cold, can live without food even for a year, and hides itself by day.

Its bite produces a swelling like a spot of nettle-rash, but it is distinguished from it by the discovery of the bite in the centre, which, unlike the surrounding redness, does not disappear on pressure. The irritation of the bite, too, as well as the crawling of the parasite upon the surface, is apt to excite nettle-rash over the whole body, which diminishes or disappears by day, to reappear at night. The itching is great, and the scratching proportionately vicious, "as the wheals," says Kaposi, "are very large; the two or three middle fingers of the hand are used in scratching, so that the excoriations are apt to be characterised by two or three parallel stripes."

This eruption may be mistaken for that of idiopathic Urticaria (nettle-rash), but in the former the nettle-rash disappears or moderates by day, the bites of the parasites are to be found in the centres of some of the nettle-rash spots, the itching is more intense, and the excoriations are apt to present the characters just mentioned, while a search for the offender will usually clear up the mystery.

The *Pulex irritans*, or common flea, is smaller than the bug; it "is short, shield-shaped, formed of one piece," and its bite is effected by means of "a bristle-like tongue, which is covered by two maxillæ of the form of two sword-blades" (Küchenmeister). The power and elasticity of its feet are very remarkable, enabling it to leap about two hundred times the length of its body, and thus to elude the attempts of its victims to entrap it. Its eggs are about one-third of a line in length, are oval, and of a white colour, and are deposited "indifferently in dust and on furniture, and in dirty people under the nails" (Kaposi). It is not so particular as the bug as to climate, although it is said to be unknown in Australia.

Its bite does not produce itching, but it causes a minute hæmorrhage surrounded by a bright red inflammatory areola with some swelling; the latter disappears on pressure, but the former does not. This minute hæmorrhage passes through the same stages as that resulting from a bruise, and disappears much more slowly than the areola. If the skin is very delicate, as in the case of children, an eruption of nettle-rash may make its appearance, and in that case itching is present. The hæmorrhages produced by the bites of the parasite may be mistaken for spots of Purpura, from which they may be distinguished by attention to the following points:—

Bites of the Pulex irritans (common flea).	*Purpura Spots.*
1. Fleas or their dark brown faeces detected on the bedding.	1. Not present.
2. Hæmorrhages surrounded at first by inflammatory areola.	2. Not so.
3. Spots of uniform size.	3. Not of uniform size.
1. Specially met with where the clothes closely embrace the body.	4. Not so.

The *Acarus folliculorum* was discovered by Henlé in 1841 in the ceruminous, and by Gustav Simon in 1842 in the sebaceous glands. Considerable variations are observed in their size and shape, as well as in the number of their legs—variations which are supposed to represent different stages of development. Even ten or more are sometimes to be discovered in one sebaceous or hair follicle; they lie for the most part lengthwise in the midst of the sebaceous matter, near the surface, and with their heads directed inwards. They are easily detected by squeezing out the contents of the follicle—although they are not found in every one—adding a little glycerine, and examining with a low power of the microscope. They are to be found in the follicles of almost all persons, are not specially associated with any disease, and do not give rise to any symptoms whatever.

ORIGINAL COMMUNICATIONS.

MEMORANDA ON

SOME OF THE MORE COMMON MALADIES MET WITH IN EGYPT.

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WHILE reading the excellent article on the "Health-Risks of our Expedition to Egypt," published in the *Medical Times and Gazette* of the 5th ult., it occurred to me that a few brief hints on the maladies most likely to affect our troops in Egypt at this season would not be altogether unacceptable to the medical staff of those troops. I must own, however, that I have not been in Egypt, but have derived my experience from a fifteen years' residence in Tripoli, on the northern coast of Africa, where the climate must be similar to that of Lower Egypt, and where I had a large practice, and even at one time (1843) accompanied a Turkish military expedition against the Arabs, and thus acquired a little knowledge of medical practice in the field.

The materia medica for such expeditions should be restricted to as few remedies as possible, and these in a form easily carried and administered, and not subject to be affected by a high temperature.

The double tent is most undoubtedly a great boon and health-preserver in Africa. It protects from the scorching rays of the sun during the day, and from the damp and heavy dew at night. Whatever the degree of heat, the men should not be allowed to sleep in the open air nor upon the bare ground, but always under shelter and upon some impermeable cloth, otherwise they will be liable to attacks of ophthalmia, rheumatism, and fever. They should wear, in summer, light woollen clothing; should protect the head, face, and neck from sunstroke, either by a veil or by a broad-brimmed helmet; they should wear tanned leather boots or shoes, but not of a black colour, for it heats the feet and rots the leather rapidly. They should, as a rule, avoid alcoholic drinks at all times, and copious draughts of cold water when the body is over-heated. Water-melons and grapes are now in season, and may be indulged in with impunity. The water-melon is a refreshing and much safer beverage than the water of the country. Other kinds of melon and fruit—particularly apricots, plums, and mulberries—should be avoided, as they are apt to cause bowel-complaints and to induce attacks of fever. Ripe bananas and dates, however, when in season, are wholesome and nutritious. The principal food of our soldiers should consist of fresh meat, cooked with vegetables, especially with the tomato; and coffee should be served to them as a palatable and excellent restorative beverage while living in an African climate.

The diseases likely to be met with at this time of the year are ophthalmia, diarrhœa, and boils. The *ophthalmia* will be either catarrhal (simple conjunctivitis) or purulent (Egyptian ophthalmia). The catarrhal variety generally attacks both eyes at the same time, and can easily be subdued by a collyrium composed of acetate of lead gr. jss. and tincture of opium gutt. xv. to every fluid ounce of distilled water. Rest, low diet, and a purge will hasten the cure. The purulent ophthalmia, however, generally commences in one eye, and attacks the other two or three days later—that is, when the first eye has closed and begins to swell. A smart saline purgative should be administered at once, the patient kept quiet and on a low diet, and a solution of nitrate of silver dropped into the eye twice a day. In the intervals, compresses wet with the lead collyrium should be kept constantly applied to the eye. If thick pus have not yet shown itself, the solution of nitrate of silver need not be stronger than in the proportion of four grains to every fluid ounce of distilled water; but if thick pus have appeared, then a solution of ten grains to the ounce of water must be employed. I have cured hundreds of patients very rapidly with this simple treatment, and have not required to smear the edges of the eyelids with lard in order to prevent their sticking together; but I have sometimes anointed the eyelids and cheeks with salad oil previous to dropping the nitrate of silver solution into the eyes, in order to prevent the skin getting stained by the caustic.

The *diarrhœa* I met with in Tripoli in ordinary times was not a serious complaint, excepting that of infants at the teething period, and that of aged persons, and of those who had neglected it for a long time, or whose constitution had been worn out by fatigue and privation—such as by a long journey into the interior of the country, or by a pilgrimage to Mecca. The looseness was either catarrhal—that is, occasioned by atmospheric influences, and was then free from pain; or it was dyspeptic—that is, caused by the irritation produced by indigestible food, and was then accompanied by griping pains in the intestines. The "Decoctum Album Sydenhami," a farinaceous diet, rest in the recumbent posture, and a bandage round the abdomen, generally sufficed to cure the patient in a day or two of the catarrhal variety. But the dyspeptic diarrhœa required, if the case was seen early, a dose of castor oil guarded with a few drops of laudanum; if not seen early, a mixture composed of rhubarb gr. iij., magnesia gr. v., tincture of opium gutt. vj., in a tablespoonful of peppermint-water, taken every time the bowels acted. Two or three doses of this mixture often sufficed to stop the looseness and cure the patient. When the case, however, had assumed a chronic form, nitrate of bismuth gr. x., with acetate of morphia gr. $\frac{1}{4}$, taken after every motion, generally put a stop to the diarrhœa. Great attention must be paid to the diet of all persons suffering from diarrhœa. When it can be restricted to arrowroot or rice, cooked in water or milk, sweetened with sugar and flavoured with lemon-peel or brandy (with only rice-water as a drink), the diarrhœa will be rapidly cured. When the patient will not submit to this regimen, his case will take a much longer time to get well.

Boils—large and small, single and in crops, simple and of an anthracoid nature—were common and very annoying during the hot months of the year in Tripoli. The best mode of relieving this distressing complaint is by the frequent use of the tepid bath, or of ablutions with tepid water, and by avoiding the too free use of liquids, and that of all hot and spicy condiments. If the digestive powers be languid, three or four grains of rhubarb should be taken daily, before meals. If there be a tendency to profuse diaphoresis, the sulphuric acid drink will do good. If there be neither profuse perspiration nor dyspeptic symptoms, a course of iodide of potassium, with or without sarsaparilla, will probably arrest the manifestation of fresh boils, and dry up the old ones.

Rheumatism showed itself in Tripoli after the rains came on, but the inundation of the Nile in the Delta of Egypt would render the soil damp, and would produce there a similar effect to that caused by the rains in Tripoli. Nowadays we have in the salicylate of soda a capital remedy, if not a specific, for rheumatism in all its varieties, whether of a febrile, a catarrhal, or a neuralgic type. It is especially adapted, however, to cases of arthritic rheumatism, because it relieves the pain in a few hours, and subdues the increased action of the heart. I generally combine it with aconite in the following proportions:—Salicylate of soda gr. xij., tincture of aconite gutt. iv., water sweetened with sugar or syrup ʒj. This dose should be given, at first, every two hours or oftener while the pain is acute; but when the pain has been relieved, it should be administered at longer intervals—say every four hours—until the rheumatic swellings lose their heat and tension. The prescription can then be replaced by one of iodide of potassium. I have found cotton-wadding to be a most soothing local application during the acute stage; but if the rheumatism be complicated with a gouty diathesis, a lotion of colchicum wine with morphia gives decided relief.

Another complaint which might perhaps affect our troops in Egypt is the *dengue*. If it show itself at all, it will be in an epidemic form, attack suddenly, and hardly spare anyone. Fortunately, the treatment of this malady is simple, and certain in its results. When a person is seized with the dengue, he should lose no time in taking a saline purge. I generally gave a dose of Epsom salts in an infusion of rhubarb, with a few drops of essence of peppermint. My patients got well with this treatment almost as fast as they got struck down by the malady.

Dysentery and *typhus* might also show themselves at this time, and would probably assume an infectious character and an epidemic type. I trust, however, that the sanitary arrangements of the army will effectually forestall such misfortune. Dysentery, in Tripoli, was a very troublesome disease

and was apt to assume the epidemic character. The treatment followed was adapted to the special indications of the outbreak, guided at the same time by the general rules prescribed for the malady—such as purgatives, ipecacuanha, opiate enemata, and emollient and anodyne applications to the abdomen. The diet was very sparing and inoffensive during the acute stage, and very carefully conducted during convalescence. I found, when practising in Tripoli, that the old plan of administering an emetic at the commencement of an attack of fever, whether it was of a malarial, a biliо-remittent, or a typhous character, cut short most of the cases, and probably did good even to those that ran through their course.

Dr. Mackie lays great stress on the prevalence of *hæmaturia* in Egypt, and attributes it to "a parasite supposed to find its way into the body by the intermediary of small fresh-water mollusca swallowed in drinking-water." When in Tripoli I met there also many cases of hæmaturia which I could not account for; but the malady only prevailed amongst the black races, and chiefly amongst those newly arrived from the interior of Africa. I do not remember having noticed it in the white races, and seldom in the Bedouins, who, by-the-bye, are subject to land scurvy, and are sometimes seen covered with petechiæ, free from fever.

These short memoranda are necessarily very incomplete. They are merely intended to be suggestive, and as expressing the result of a long experience in a climate which I believe to be similar to that of Lower Egypt.

A RARE FORM OF AORTIC ANEURISM.

By THOMAS F. CHAVASSE, M.D. Edin.,
Surgeon to the General Hospital, Birmingham.

Aneurism being a disease more frequent in men than in women, and the period of life usually selected for its development being middle and advanced age, the following case seems worthy of special note.

Elizabeth J., aged twenty-four, married, admitted to the General Hospital, Birmingham, on February 17, 1882. Is the mother of three children, the youngest of whom is seven months old.

History.—Was rickety in childhood, but since has always enjoyed good health. During her married life of six years has been subjected to much ill-treatment. No history of syphilis, either inherited or acquired. Two years before admission to the hospital, while nursing her baby, sudden pain was felt in the chest. Was treated for indigestion for a month with advantage. Subsequently the pain returned with increased severity, and, with the exception of three weeks after her last confinement, has existed ever since. The pain at first was compared to knives sticking into the sides and between the shoulders, afterwards to a constant throbbing. At times the action of the heart was much accelerated. There was never any cough. Five months before admission she was obliged to discontinue housework, and since then the pain has assumed a constant wearing character—most felt in chest and back. A fortnight ago, a neighbour, when applying hot fomentations to the back, noticed something forming in the region of the left scapula; this formation has been increasing in size.

Examination on Admission.—The right arm is shorter than the left, owing to diseased bone having been removed from the upper end of the humerus when a child. Spines of upper dorsal vertebræ much more prominent than normal. At the spinal border of the left scapula, filling up the space between it and the dorsal spinous process, there is a distinct tumour, measuring four inches vertically and three inches horizontally, pulsating synchronously with the heart, most marked at the lower angle of the scapula; dull on percussion, but with no distinct bruit on auscultation. The front of the left side of the thorax, from the third rib upwards, is much less resonant than on the right side; posteriorly, dulness is absolute, and vocal fremitus is wanting.

Auscultation.—Posteriorly, breath-sounds are normal on the right side, and are absent on the left side above the spine of the scapula; elsewhere, feebler than on corresponding side.

The cardiac apex is seen and felt in the sixth interspace, five inches from the middle line of the sternum. A basal systolic bruit is present, and also a very loud diastolic one conducted down the sternum; both are heard loudest at the second costal cartilage. These bruits are audible over the front of the right chest, and are distinct over the spine of the right scapula.

The treatment adopted was rest in bed, a nourishing diet, an ice-bag to the tumour, and subcutaneous injections of morphia when the pain was urgent.

March 4.—The tumour has been increasing very much, and now measures seven inches in length and four in breadth. The attacks of pain are constant and very severe; most felt in the left mamma. Patient is unable to lie upon her back.

11th.—Not so much pulsation at upper part of aneurism, most of it being at the lower portion. The pain in the side is most agonising, and morphia is constantly administered.

18th.—There is distinct bulging of the left chest laterally; the pain, if possible, is aggravated. The tumour behind has visibly increased.

23rd.—The ribs on the left have become still more prominent, and the pain is so severe as to necessitate a quarter of a grain of morphia subcutaneously every two hours.

24th.—At 1 a.m. the patient screamed, and suddenly died.

At the *post-mortem examination* made by Dr. Barling, Pathologist to the Hospital, the left pleural cavity was found to contain two pounds of blood-clot. At the junction of the transverse and descending parts of the arch of the aorta the aneurism was found to originate, having a mouth the size of a shilling, and extending backwards and to the left side, eroding the bodies of the third, fourth, and fifth dorsal vertebræ to such an extent that the dura mater of the spinal cord was quite exposed for half an inch. The heads, necks, and portions of the shafts of the three ribs corresponding with the eroded vertebræ had been totally removed; the ends of the bones remaining were rounded and smooth. The sac of the aneurism was the size of a fœtal head, formed by the muscles of the back, and very thin, owing to the atrophy that had taken place. Near the ribs, a small slit-like rupture was detected in the sac, through which bleeding into the pleura had occurred. The trachea, œsophagus, and the large nerves in the vicinity of the arch had just escaped compression. Considerable atheroma of the arch of the aorta existed, but none was detected elsewhere. The other organs of the body were healthy.

When the case first came under notice, the age and sex of the patient, the absence of a bruit in the sac posteriorly, and also of cough, laryngeal spasm, and dysphagia, together with the non-existence of any definite history of injury, alcoholism, or specific taint, inclined to the supposition that an intra-thoracic sarcoma had to be dealt with; but the condition of the spine and the character of the pain left no doubt of erosion, more or less, of the bodies of the contiguous vertebræ. The pain experienced by the patient was peculiarly agonising; even frequent subcutaneous injections of morphia sometimes failed to afford any relief. But, in spite of this pain and the free administration of morphia, the woman took food well to within two days of her death. The post-mortem examination showed that if life had been prolonged for a short time longer, rupture of the aneurismal sac would have taken place posteriorly, as the muscular element which composed the same had become very much attenuated. The question of the employment of electrolysis was carefully considered, but my colleague Dr. Rickards and myself concluded that the size of the tumour, and the rapid increase of the same after the patient was under observation, militated against the successful issue of any operative measure. It is difficult to accept as absolutely true the statement of the friends that nothing at all could be detected in the back before the woman was admitted to the hospital, when constant and acute pain had existed in the dorsal region for nearly two years.

Longevity of the Learned.—The necrology of both Harvard and Yale Colleges this year is of interest as showing the tendency to longevity amongst educated men. Of the 78 dead in the Yale list for the year, 31 were seventy years of age or over, the average being over seventy-eight. Of the 71 dead in the Harvard list, 29 were over seventy, the average being over seventy-seven years. In each list the extreme age reached was ninety-six.—*Boston Med. Jour.*, July 13.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

DIPHTHERIA—NEPHRITIS—LEFT HEMIPLEGIA, WITH APHASIA—OBSTINATE VOMITING—DEATH FROM PARALYSIS OF THE INTERCOSTAL MUSCLES—EMBOLISM OF RIGHT MIDDLE CEREBRAL ARTERY—SLOUGHING OF ŒSOPHAGUS.

(Under the care of Dr. GEE.

[Reported by Dr. JOHN ABERCROMBIE.]

G. W., aged six years and eleven months, was admitted into the hospital on March 19, 1881, with the following history:—The evening before last he complained of headache and vomited; next morning (*i.e.*, yesterday) he had a sore throat, and his mother noticed that his neck was swollen on the left side. This swelling has since increased in size. There has been no nasal discharge. Bowels confined. Always rather a delicate child. There is no one else ill in the house, and no insanitary conditions are known to exist in it. Mother thinks that there is some illness prevalent amongst the boys at his school.

On March 20 the following note was taken:—A pale, not well-nourished boy. Temperature 101° last night, 99° this morning. Tongue coated with a thick creamy fur. Both tonsils greatly swollen, and covered with thick discoloured membrane, a patch of which extends forwards from left tonsil on to hard palate. No nasal discharge. Glands behind angles of lower jaw very considerably enlarged and tender. Heart's action rapid, sounds weak; pulse soft; otherwise chest and abdomen natural. Urine clear; contains a good trace of albumen. He was put upon a mixture of quinine, chlorate of potash and iron, and a solution of carbolic acid in glycerine ordered for local application.

March 23.—Since last note there has been slight fever: the membrane has very nearly cleared off from tonsils, and the glands in neck are smaller. Urine contains one-fourth of albumen.

24th.—Urine shows a slight cloudy precipitate, and contains a half albumen; microscopically, a good many hyaline epithelial casts becoming granular, and a very few blood corpuscles.

26th.—Temperature a little raised. Vomited after everything he took yesterday (had vomited twice the day before). Seems more languid, and complains of pain in abdomen. No membrane on fauces. Urine still contains albumen one-half.

31st.—No fever now; no albuminuria.

April 1.—Vomited twice in the night after food. Speech has been thick for some days, and is now decidedly nasal. Soft palate acts well; some mucus about posterior pillars of fauces. Is very weak; cannot sit up properly. No albuminuria.

2nd.—Always drinks in sips, and has done so ever since he has been in. Vomited during night. Urine, a trace of albumen. In the afternoon he was suddenly convulsed all over without any initial cry; later on it was noticed that his face was drawn to the right, and he complained of right frontal headache.

3rd.—Not febrile. Was convulsed this morning for about twenty minutes, on right side only; face was turned to the left. Has not spoken since yesterday, but understands what is said to him. Swallows fairly. Complete left hemiplegia; draws foot up when sole is tickled. Pupils equal, sensitive to light. Heart-sounds natural, action regular. Urine albuminous.

4th.—Not febrile. Slept very little last night. Has not been convulsed again. Complete left hemiplegia, including lower half of face. Slight rigidity at left elbow-joint. Does not speak. No ophthalmoscopic changes. No knee phenomenon on either side. Passes everything under him. Vomits frequently. Urine contains a third of albumen. Muscles respond naturally to the induced current.

9th.—Slight evening rise of temperature. No vomiting now for five days. Always seems to have pain in the abdomen. Has not spoken since the hemiplegia came on.

11th.—When he drinks quickly, fluids return through nose. Uvula not pendulous; does not move when touched. Urine albuminous.

13th.—No fever. Is getting paler and thinner. Pupils dilated, sluggish. Food returns through nose more than it did. Breathing laboured. No expansion of chest-walls; breathing diaphragmatic; some fine dry sounds over both backs. Pulse frequent, regular, soft. Superficial reflexes absent. No knee phenomenon. Urine albuminous.

14th.—Died at 2 a.m.

Autopsy.—Examination of body ten hours after death: Body wasted; weight, thirty-three pounds and a quarter. Rigor mortis present. Convolutions of brain not flattened; no exudation at base. On examining the right Sylvian fissure, the middle cerebral artery about half an inch from its origin is occupied by a clot extending into the first two divisions for half an inch; these vessels are completely occluded, and the clot adheres to their walls. The vessels beyond are empty. The right hemisphere is distinctly softer than the left, and this is especially marked in regard to the outer segment of the lenticular nucleus; the grey matter of the corpus striatum and optic thalamus on this side is markedly paler than on the other side. Pons, medulla oblongata, and cerebellum are natural to the naked eye. The spinal cord is softer at the cervical enlargement than elsewhere. Pharynx, larynx, and trachea are natural. The connective tissue in the posterior mediastinum is greenish-black and gangrenous; both lower posterior pleuræ are in a similar state. Pericardium natural. Heart contains post-mortem clots on both sides; left ventricle decidedly hypertrophied; some thickening along attached margin of one of the aortic cusps; slight thickening of the free edge of the mitral valve; weight, four ounces. Both lungs show hypostatic congestion of lower posterior portions; right weighs ten ounces and a half; left, nine ounces. Tracheal and bronchial glands slightly enlarged and soft. The œsophagus in its lower third of posterior wall is gangrenous, and shows a longitudinal rent, probably due to manipulation, as there was no food in the mediastinum, and the parts were very soft. Greater curvature of stomach thinned, soft, and slightly discoloured; otherwise, alimentary canal natural. Liver natural; weight, one pound six ounces and a half. Spleen enlarged, and contains some firm, pale yellow, more or less wedge-shaped infarcts; weight, one ounce and three-quarters. Both kidneys are large; right is almost entirely filled with firm, pale, wedge-shaped infarcts; the left kidney is rather smaller, containing one large infarct; capsule not adherent: cortex increased in depth; striation fairly distinct; pelvis of left kidney slightly dilated. The kidneys weigh three ounces and a half. Pancreas natural. Mesenteric glands slightly enlarged, corresponding to the upper part of small intestine.

Remarks (by Dr. Abercrombie).—I made a brief allusion to this case in a paper which I read on Diphtheritic Paralysis before the Children's Section at the International Medical Congress last year, but I have thought it of sufficient interest to be published in full. The following points seem to me to be deserving of some detailed consideration. The case was one of more than ordinary severity, for within forty-eight hours from the commencement of his illness the membrane covered both tonsils, was spreading on to the hard palate, and already becoming discoloured, and there was the characteristic odour of diphtheria about the patient. Such rapid extension and decomposition of the membrane always indicates danger. I do not mean to say that in such cases the patient will of necessity die, for in this particular case the child did not die directly of his diphtheria, but at the same time I do not recollect to have seen any case, where these changes took place more rapidly than in this instance, followed by recovery. Next I would notice the vomiting, which commenced in the second week of his illness: this may have been throughout, and certainly was towards the last, associated with the gangrenous condition of his œsophagus, as he was always very careful to take his food in sips, and towards the last he always cried during and after taking his food. Long ago Sir William Jenner called attention to vomiting during diphtheria as an omen of a fatal result, and my own experience bears witness to the accuracy of this observation, for out of 120 consecutive cases of diphtheria treated at Great Ormond-street, not one single child that vomited recovered. Of course, by "vomiting" I do not mean to refer to a single act of vomiting, but to its causeless recurrence independently

of food. The occurrence of hemiplegia on the fifteenth and sixteenth days, coming on with a general convulsion, was at the post-mortem clearly traced to the plugging of the middle cerebral artery on the opposite side of the brain. This must be a very rare occurrence after diphtheria, as I have not found any mention of it in any of the works that I have consulted. Of course, I am aware that cases of ante-mortem thrombosis in the heart itself have been recorded, but such an occurrence has generally been the immediate cause of death. It must be presumed that in this case a small quantity of fibrin became formed on the somewhat thickened mitral valve, and was afterwards broken up and washed into the general circulation, being arrested in the kidneys, spleen, and right middle cerebral artery. The loss of speech which the child undoubtedly had after his convulsions, and which persisted till his death, also deserves some notice. The mother did not know that the child was left-handed, and it must therefore be assumed that he was not. Some, doubtless, will say that probably there was also a small plug blocking the branch of the left middle cerebral artery, which supplies the inferior frontal convolution. I can only say that I did not see one, and that this convolution was not obviously softened; besides, I do not think this is a fair way of attempting to solve the difficulty. It seems to me that if the commonly accepted view of the localisation of the speech-centre be correct, there must be a period of childhood when the faculty of speech is not localised more to one side of the brain than the other, and that, during this period, damage to either inferior frontal convolution *might* produce loss of speech, or some modification of this. Excepting upon this hypothesis, I do not see how one can explain the fact that, in cases of chorea in young children, speech is almost as frequently affected when the chorea is left-sided as when it is right-sided. As regards the gangrenous condition of his œsophagus, I believe that this was the result of the spreading down of the diphtheritic process; of course, the other alternative is that it was a post-mortem change. This is often a difficult point to determine: the length of time (five weeks) that had elapsed since the diphtheria would favour the latter hypothesis; the obvious difficulty and discomfort the child had in swallowing would be in support of the former view. Towards the last, paralysis of the intercostal muscles supervened, and was, indeed, the actual cause of the fatal result. As the case was included amongst those on which the paper to which I have already alluded was based, I need not enter into any details about the microscopical anatomy of his nervous centres. Suffice it to say that I found evidence of the existence of a subacute myelitis. I have on a former occasion expressed the opinion that treatment in a hospital prevents the onset of paralysis: I do not feel called upon to modify that opinion in consequence of this case. It is true the boy was under treatment in the hospital almost from the commencement of his diphtheria, but I laid stress on good feeding as an important element in the treatment of diphtheria, and as this child had very frequent vomiting, for practical purposes it may be said that he did not have good feeding during his illness. So far, then, from this case militating against my view, it seems to me distinctly to confirm and support it. One word in conclusion about the medicinal treatment of diphtheritic paralysis. All who spoke on this subject at the Congress praised up strychnia, to the exclusion of almost every other drug. Most of the speakers appeared to have no knowledge of any but very mild forms of the disease; but I was surprised when I heard Dr. Jacobi say that strychnia was *certainly* the very best mode of treatment in these cases, as he had just before said that he had never known a case recover in which there had been paralysis of the respiratory muscles. Now, as death from any other cause than failure of the respiratory muscles is decidedly rare, I do not see how he arrives at the conclusion that strychnia has any curative action in this disease. For my own part, I have tried strychnia several times both internally and hypodermically, and have never seen any benefit whatever from its use. I have sometimes thought that it positively did harm. On the other hand, I have seen recovery take place in two very grave cases where belladonna was administered with an unsparing hand. It seems to me that the failure of strychnia and the success of belladonna in these cases may be accepted as confirming the view which the microscope would teach, that the symptoms are due to a subacute myelitis.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 23, 1882.

THE USE AND INFLUENCE OF HOSPITALS FOR INFECTIOUS DISEASES.

A supplement to the annual Report of the Local Government Board has just been published, containing two reports that have been long and anxiously expected. When noticing, in the first week of April last, the Report of the Medical Officer of the Board for the year 1880, we felt compelled to complain of the official secretiveness shown by the Board in carefully denying to the public all information as to the result of the investigations carried on by Dr. Thorne and Mr. Power as to the use and influence of hospitals for infectious diseases, though it was well known that these investigations had been concluded. The reports of these medical inspectors of the Board are, however, at last before us, and they are of very great importance and interest.

Dr. Buchanan, the Medical Officer of the Local Government Board, prefaces the reports of Dr. Thorne and Mr. Power by a valuable and instructive commentary, in which he states that from a return made to the Board in 1879, it appeared that 296 sanitary authorities had arrangements of one sort or another, in hospitals of their own, or by an understanding with their neighbours, for the reception of infected persons who could not be treated at their own homes with safety to other people; and that in view of this return, and of other considerations that forced themselves on the observation of the Board, it became evident that authorities who might be wishful to provide hospitals were frequently finding themselves hindered by lack of experience, by apprehension of difficulty, and by the real difficulty arising from the objection of landowners to sell land for the purposes of an infectious hospital, and the objection of householders to have an infectious hospital for their neighbour. It was presently seen, Dr. Buchanan says, that the Board could usefully collate, for the assistance of sanitary authorities unprovided with infectious hospitals, the experiences of other authorities who had, in comparable

circumstances, provided their districts with such hospitals. Moreover, it had become essential to learn whether or not there was ground for the fears of landowners and neighbours; and to learn, if possible, what were the conditions for removing or reducing any real danger that might be found to exist. To these objects Dr. Thorne's labours, which lasted through many months of the years 1880-81, were devoted. He inspected seventy hospitals for infectious diseases, in use by urban, by rural, and by port sanitary authorities, of every variety of locality, size, and construction; and of all degrees of perfectness and imperfectness of management and administration; and the history of these occupies some 300 out of the 363 pages of the volume before us. The whole forms, to use Dr. Buchanan's words, "a mass of instructive matter for the assistance of sanitary authorities and their advisers," and we shall take other opportunities of noticing some of the most important questions dealt with in it. But we will note here that, as regards the great question whether or not any injurious effect upon the health of a population could be traced to the presence of an infectious hospital in its midst, the results of Dr. Thorne's investigations are negative. In some cases he found infection had been communicated through some fault of administration. And as regards small-pox, he records two instances where infection had appeared to spread from a hospital in a row of houses to other houses in a way that suggested conveyance of the infective matter through the atmosphere rather than by means of persons or things. But in no other instance was he able to obtain any evidence of extension of small-pox infection to neighbouring streets or houses, "in spite of the best inquiries that he and officers of health before him could make."

As respects other infectious diseases, he, "having to tell many a story of hospitals in which the circumstances of site, of construction, and of management might have been better than they were, has nothing to record of fevers—scarlet, typhus, or enteric—or other infectious diseases spread from the hospital, as such, to its neighbourhood." Dr. Thorne's inquiry had, however, been limited to the provinces, and when, "at the end of 1880, representations were received by the Local Government Board that cases of small-pox were occurring in an exceptional fashion round certain of the Metropolitan Asylums Board hospitals" (the Local Government Board carefully ignores the Hampstead Hospital case), it was felt that Dr. Thorne's experience could not be accepted as representing the whole truth for hospitals in London, and, accordingly, Mr. Power was associated with Dr. Thorne for the particular purpose of investigating the facts for the neighbourhood of Fulham.

Mr. Power's inquiry was commenced on January 17, 1881. In December, 1880, a rapid increase of small-pox had occurred in East London, which turned out to be the commencement of a serious fresh epidemic of the disease, and gave Mr. Power the opportunity of studying with great exactness, and at the earliest possible moment, all the circumstances of one of those local epidemics which had been alleged to be connected with the proximity of small-pox hospitals. Of this opportunity he made the fullest and most careful use. The Fulham Hospital occupies, he states, a site which, from the view-point of medical knowledge at the time of its selection, was singularly free from objection. With few exceptions there are not, within 500 feet of the limits of the Hospital grounds, any inhabited dwellings; much of the ground immediately adjoining the Hospital is as yet unbuilt on, and most of it is so circumstanced as to render it very unlikely to be built on in any near future. And as regards traffic routes also, the Hospital is greatly isolated. After having been closed for some weeks, the Hospital was reopened on December 13 for small-pox cases that might arise in thirteen specified metropolitan parishes, chiefly of Middle and West London; and as the number of cases occurring at this date in these parishes was insignificant, it was further determined to use the Hospital for surplus cases from the overtaxed hospitals of the East-end. On December 13 and 14, forty patients convalescent from small-pox were transferred from Homerton; and by January 17, when the inquiry began, 110 convalescents had been admitted from Homerton and Deptford. Meanwhile fifty-five acute cases had also been received, of whom *five only came from Chelsea, Fulham, and Kensington*. At this time, therefore, there was no reason for the people of the neighbourhood to visit the Hospital; and previous circumstances connected with recent repeated prevalence of small-pox in Chelsea, Fulham, and Kensington, made it seem at the least very probable that an epidemic of the disease could not be easily set agoing in those parishes. Under these conditions it seemed that should any marked fresh prevalence of small-pox cases occur in the neighbourhood of the Hospital, it would not be difficult to determine whether or not the Hospital had any concern in that prevalence. Mr. Power therefore, for the purposes of observation and comparison, immediately selected a "special area," included within a circle of a mile radius from the centre of the Hospital; and made arrangements to secure early information respecting every case of small-pox occurring within this area, and to seek out at once the source of infection of each case. That his arrangements were well made, and that his co-labourers served him well, seems to be proved by the fact that house-to-house inquiries undertaken by each of the vaccination authorities did not bring to his knowledge more than half a dozen cases of small-pox that had not been previously reported to him. After the opening of the Hospital, attacks of small-pox in Chelsea, Fulham, and Kensington were *nil* in the fortnights ending December 11 and 25; but by January 22, 1881, they had become eleven in number, all of which had occurred in separate households, and some of them in households in the special area. In the next fortnight, however (that ending February 5), there occurred a great outburst of small-pox in Chelsea, Fulham, and Kensington, the fresh cases amounting to 62, of which 47 were attacks of persons in the special area, and 11 of the remainder resided within a further half-mile of the Hospital. As to households, 56 houses had been freshly invaded during the fortnight, and of these 41 were within the special area, and other 11 within the further half-mile. Moreover, a very curious limitation of the outburst in regard of time was observed. Of the 62 persons attacked during this last fortnight, 4 only commenced to be ill before January 26, while on that and on four succeeding days (January 26 to 30) 42 persons were attacked; and of the 42 cases no less than 32 occurred within the special area, and other 8 cases within one mile and a half of the Hospital. The persons now newly attacked must therefore have got their infection at a time when not more than four cases of small-pox were known to have occurred in the special area, and eight only in the whole of the three parishes. A minute investigation was made of the precise doings day by day of each of the thirty-two persons attacked in the special area, during a period of from ten to fourteen days before they were attacked, with the result that in nine cases only could evidence be got, or any reasonable suspicion be entertained, that the sufferer had, within a fortnight of attack, been in personal relation, direct or indirect, with small-pox. It came to be seen, therefore, that within the special area some heretofore unrecognised factor of epidemic small-pox had probably been in operation. But there was, so far, no direct evidence that the Hospital had been such factor; and Mr. Power felt that unless it could be shown that in other years, during which the Hospital was in use for small-pox, there had

been exceptional incidence of the disease in the special area around it, occasion for believing the Hospital to have been concerned in the outbreak of 1881 did not of necessity arise. Accordingly, in order to ascertain what had occurred in this regard in former visitations of small-pox, he divided the time since the Hospital was opened in March, 1877, into five epidemic periods, and made a most painstaking investigation into the amount of prevalence of small-pox in each period in the three parishes, in the special area, and in parts outside the special area, and for the purposes of comparison he took a period of one year before the Hospital was opened, and gives the distribution of cases of the disease during that period in the areas selected. In the end he was forced to the following conclusions:—That there has been in each epidemic period an excessive incidence of small-pox in houses in the neighbourhood of the Hospital as compared with more distant houses in Chelsea, Fulham, and Kensington. The percentage of houses invaded in the neighbourhood of the Hospital has become gradually smaller as the distance of the houses from the Hospital has increased, and this gradation has been very exact and very constant. Houses upon the chief lines of human intercourse with the Hospital have not suffered more than houses lying in other directions from the Hospital. In point of time there has been a very marked relation between the varying use of the Hospital and the manifestation of excessive small-pox in the neighbourhood. This relation has not shown itself while the use of the Hospital has been for convalescents only. The appearance of excessive small-pox in houses around the Hospital has never been delayed until the Hospital has become full or nearly full; it has always been most remarkable at the time when admissions to the Hospital were beginning to increase rapidly. On comparison of different epidemics, an almost constant ratio is observed between the amount of the Hospital operations and the degree of excess of small-pox on the neighbourhood.

Mr. Power then inquired most minutely into the arrangements and doings of the Hospital; the management of wards, laundries, and the other departments; matters of visiting and ambulances; and, as Dr. Buchanan observes, "in regard of the particular events of January, 1881, he would almost seem to have made every person attached to the Hospital account for his or her doings during every hour that those doings could have been of importance," but the result was that he was driven to conclude that the machinery of the Hospital administration, with inclusion of defects in that machinery, does not account for the peculiarity of incidence of small-pox within the three parishes of Chelsea, Fulham, and Kensington since the establishment of the Hospital. And that there must have been some condition or conditions operating to produce the observed distribution of small-pox around the Hospital that have pertained to the Hospital as such, and that have been in excess of the conditions for small-pox extension as usually recognised. Mr. Power then inquired into the conditions of atmosphere external to the Hospital that may have been related, first to the non-dissemination, and afterwards to the dissemination, of the disease round the Hospital, and arrives at an opinion that during the epidemic period in January, 1881, and most probably during former similar periods, there has arisen, in the atmospheric circumstances of the time, peculiar facility for the dissemination in an undamaged state of any matter that may have been given off from the Hospital. We must, however, leave to another opportunity all consideration of Mr. Power's interesting speculation on the atmospheric dissemination of the contagium of small-pox.

Dr. Buchanan finds that, "looking to the great and prolonged care and thought" that Mr. Power had given to his investigation, he had no choice but to accept his general conclusions, and to believe that "the Fulham Hospital, with all its advantages of site and construction, and with the many excellences of its administration, has, by dissemination of small-pox material through the atmosphere, given rise to an exceptional prevalence of small-pox in its neighbourhood."

The importance of such a conclusion cannot easily be exaggerated, and unquestionably it must be very carefully considered, and perhaps tested by a like inquiry into the history and circumstances of other metropolitan small-pox hospitals, before it can be fully accepted. But it must be remembered that other London small-pox hospitals have come greatly under suspicion; and even to-day we note elsewhere in our columns that the results of a skilled inquiry respecting the Deptford Small-pox Hospital seem to confirm the Fulham experience.

THE BRADSHAWE LECTURE, 1882.

When Dr. Long Fox selected the Influence of the Sympathetic System upon Disease as his subject for the Bradshawe Lecture, we felt that he had chosen one upon which our knowledge is perhaps more vague, and in which we have made less progress, than in any other department of medicine.

Seeing that, as Dr. Fox said, the influence of the sympathetic touches every normal function of the body, as well as every abnormal disorder, it follows that everyone engaged in the practice of the healing art must perforce take a deep interest in some one or other of the many important questions that arise out of this vast subject. But if any went to the College of Physicians expecting or hoping to hear some new doctrines in physiology or some startling discoveries in pathology, we fear they must have felt disappointed. Dr. Fox preferred to give a general summary of the acquired facts relative to the part played by the sympathetic system in the various diseases, and has not led himself or us away after far-fetched speculations.

To our mind it is of the utmost benefit that every now and then some one should collate all the information on one particular subject, and bring it before us. It gives us a fresh starting-point to work from, and also reminds us of what has been already done by others. We consider, then, that Dr. Fox has performed a great service in placing this subject before us in so exhaustive a manner. We have not space to follow him in the long list of diseases in which vaso-motor disturbance plays an important part—hysteria, epilepsy, hemicrania, hemiatrophia facialis, angina pectoris,—nor can we do more than mention that he discussed at some length, and with much care and ability, the relation of sympathetic influence in congestion. We cannot, however, quite agree with Dr. Fox in his remarks on Graves' disease; indeed, the exact view of its pathology that he holds is left a little uncertain. He does not seem to give the sympathetic system much share in the production of the exophthalmos, and, in respect of this point, we think the following remarks of Eulenburg and Guttmann are worth quoting. They say:—

"The occurrence of exophthalmos in this disease might be explained if we were to assume the existence of a condition of irritation in the oculo-pupillary fibres of the cervical sympathetic. . . . . Thus we have to do with two opposite conditions—paralysis of the vaso-motor, and irritation of the oculo-pupillary fibres of the cervical sympathetic. This assumption contains nothing arbitrary. . . . . If we now suppose that Graves' disease arises from an affection of the nerve centres, we may well conceive that the centre for the oculo-pupillary fibres of the cervical sympathetic is in a condition of irritation, while, on the contrary, the centre for the vaso-motor fibres is in a state of paralysis." After admitting the difficulties in the way of attributing the permanent proptosis to persistent tetanic spasm of the unstriped ocular muscles, the authors conclude: "Thus it is

extremely probable that all three conditions—spasm of the unstriped orbital muscles, venous hyperæmia, and increase of the fatty tissue in the orbit—co-operate in the production of the exophthalmos." It seems to us that the possibility of permanent spasm of the unstriped ocular muscles ought not to be put on one side too lightly, for when we consider what is known as von Graefe's sign (the non-descent of the upper lid when the patient looks down), we suppose it will be admitted that this is due to contraction of the unstriped muscular fibres that exist in the upper lid, and this symptom, we believe, as a rule persists throughout the whole duration of the disease. Now, if paralysis followed on long-continued irritation, we ought to get ptosis, which rarely occurs.

Dr. Fox regards the goitre and the accelerated action of the heart as the two chief sympathetic symptoms. All will agree with him that the enlargement of the thyroid gland is better explained by paresis than irritation of the sympathetic; but he has withheld from us his views as to the cause of the rapidity of the heart's action; as he observes, paralysis of the sympathetic would leave the vagus uncontrolled, and must lead to syncope. Persistent irritation of the sympathetic is a doctrine that physiologists repudiate as impossible. There seems to us, then, only one hypothesis left, and that is paralysis of the vagus, and to make this hypothesis reasonably plausible we must assume a central lesion. Granting, then, that the main phenomena of the disease in question can be explained on the assumption of a central lesion as readily as, if not more so than, in any other way, let us see what are the other concomitants of the disease, and how their presence would fit in with this view. Briefly, they may be said to be increase of temperature, diarrhœa, perspiration, pigmentary changes. None of them are constant, but they have all been seen combined in the same patient. Now, such a condition, if not due to central lesion, requires a very widespread and arbitrary distribution of damaged areas over the whole sympathetic system. It seems to us that Dr. Yeo's case, quoted by Dr. Fox, also points in the same direction. Be that as it may, and although we cannot agree with Dr. Fox that in this disease the part played by the sympathetic nervous system is secondary, we think that the profession is greatly indebted to him for an exceedingly thoughtful and suggestive essay.

VARIOLA AND VACCINIA.

When Jenner made his great discovery he believed the cow-pox to be immediately derived from the horse-pox; but both to be nothing more or less than the human small-pox accidentally implanted in, and modified by transmission through, the body of one of the lower animals—attributing the protective power of vaccination to its ultimate identity with the graver disease. Acting on this belief, some of his followers, as Ceely, Badcock, Thiele, and Senft, attempted to originate new stocks of lymph by inoculating calves with human variola, and apparently achieved entire success. Dr. Martin, of Boston, U.S., and some Indian surgeons, following in their steps, found to their dismay that the objects of their vaccinations developed unmitigated small-pox, which they communicated to others by ordinary infection. These results put a check to further experiments in this direction, and the friends of animal vaccination have for some time contented themselves with perpetuating certain stocks of lymph derived from alleged cases of spontaneous cow-pox appearing at long intervals, or by the practice of retro-vaccination. Of late years the views of Jenner and his followers have been impugned by the French school headed by Chauveau, by Bollinger in Germany, and by Fleming in this country. These observers maintain that the variole or "poxes" of the lower animals belong to one of two groups—those represented by the sheep-pox, which is a fatal, infectious, acutely febrile disease, with a general pustular eruption closely resembling human small-pox in all its phenomena, yet not conferring any immunity against it; and secondly, those which, like horse-, cow-, and camel-pox, are merely local affections, with little febrile disturbance, and devoid of danger to life, communicable even among these animals only by direct inoculation, and yet protective against small-pox.

They conclude from the results of Martin's experiments that small-pox implanted in the cow remains unchanged however closely it may simulate in its appearance those cases of cow-pox assumed to be of spontaneous origin, and therefore that Ceely's supposed vaccinations, though unattended by the grave consequences that followed Martin's, were merely favourable examples of variolous inoculation and not vaccination at all.

The Lyons Commissioners, with truly French complacency, did not trouble themselves even to examine the records left by Ceely, Badcock, Thiele, and the rest; but, ignoring them *in toto*, denied the possibility under any circumstances of transforming variola into vaccinia.

In these circumstances, therefore, we gladly direct attention to the careful investigations of Dr. Voigt, Superintendent of the Vaccine Institute at Hamburg, a detailed account of which he has published in the *Deutsche Vierteljahrschrift für öffentliche Gesundheitspflege*, Bd. xiv., H. 3, by which he has completely vindicated the doctrine of our immortal countryman, and by demonstrating the possibility of transmuting the most virulent variolous pus into vaccine lymph of the purest type, has dispelled the doubt cast on the correctness, not to say the truthfulness, of the statements of Ceely and the rest. He admits that the experiments of Thiele, as recorded by himself, are wanting in scientific precision, but felt that he could not refuse credit to the carefully conducted and reported labours of Ceely, Badcock, and Senft. Indeed, as long ago as 1830, Schneemann received from Ceely himself some of his lymph, with which successive generations of children in Germany were vaccinated without a single untoward result, putting its true nature beyond the reach of doubt. The assertion that immunity against small-pox is conferred by the inoculation of a purely local, non-infectious, and non-febrile disease, as cow-pox is represented to be, and not by one so closely allied to variola as sheep-pox is, seemed to him paradoxical, if not incredible, and in every way less satisfactory than the explanation offered by the hypothesis of Jenner, confirmed by the experiments of Ceely and others equally worthy of credit. His reasoning led him to the following conclusions, which his experiments have, to a great extent, verified. He denies *in toto* the existence of spontaneous cow-pox in the sense of a specific disease believing every case to be one of accidental communication from man (occasionally perhaps, as Jenner believed, through the medium of the horse) either of small-pox or of vaccination—an opinion supported by a consideration of the parts of those animals on which the eruption usually appears (the ankles of horses and the udders of cows being those most handled by the persons in attendance on them. This alternative origin in variolous inoculation or retro-vaccination he thinks accounts for the severity of the symptoms in some cases, and the mildness in others, when the "spontaneous" cow-pox has been used for purposes of vaccination. When the immediate source has been a case of variola, or at any rate a case of a severe type, his experiments show that the transmutation of the virus is not complete until it has passed through the bodies of at least half a dozen animals; and it was, he thinks, ignorance of this fact that produced such unhappy results in the practice of Dr. Martin and those Indian surgeons whose experience was the same as his. Probably

Ceely and Badcock selected for their inoculations variola of a milder or mitigated form. It is well known that inoculation of the calf with variola is extremely difficult, easy though retro-vaccination be; hence the rarity of so-called spontaneous cox-pox. Reiter failed in fifty attempts spread over ten years, but succeeded in the fifty-first. When the inoculation is effected, it is comparatively seldom that any lymph-containing vesicle follows, the more frequent result being a dry papule or nodule, which, without further development, leaves a scab. This, which Voigt calls the abortive form, Chauveau, ignoring the successes of Ceely, etc., maintains to be the invariable result. He calls it "variola bovine," to distinguish it from the vesicular vaccinia, which he maintains to be a specific disease. Reiter, having vaccinated a child with lymph obtained from the single instance in which he succeeded in inoculating a cow with variola, induced mild but unmistakable small-pox, and abstained from further experiments therewith; but three weeks later he observed in the same stall cows with veritable cow-pox, which transmitted to human subjects genuine and innocent vaccinia. Voigt then resolved on trying the effect of successive "cultivations" on each generation of lymph. In his first three attempts he attained but partial success, the inoculation ending "abortively." The fourth was more fortunate, and Dr. Voigt chose as a *corpus vile* an ill-nourished, unhealthy child, admitted to the hospital for itch, but, being unvaccinated, in imminent danger from the appearance of small-pox in the ward. The result was what he had apprehended—intense febrile disturbance, axillary bubo on the side of the vaccinated arm, eczema, and some half-dozen discrete nodules, leading to fluctuating tubercles, though no truly variolous eruption. Happily for all concerned, the patient recovered. Meanwhile Dr. Voigt continued his inoculations of calves through not fewer than fifteen generations with increasing facility, the symptoms presented by each successive inoculation assimilating more and more to the normal vaccinia. The second generation he did not venture to use; with the third he vaccinated four children, one twice without result, but the other three successfully; the fever ran rather high, and the axillary glands were enlarged, but there was nothing in the vaccinations specially worthy of note. It is true that they suffered respectively from erysipelas, tonsillitis, and pneumonia—mere accidents, which he attributed to the unusual severity of the weather and the insanitary conditions of their homes. He did not attempt further experiments until he had reached the eighth generation. This gave entirely satisfactory results, and an intercurrent eruption of measles subsided in two days. The lymph of the ninth and subsequent generations was employed without hesitation by the other surgeons of the Institute in their ordinary vaccinations, the appearances presented by the animals, and by the children vaccinated from them, being undistinguishable from those produced by the use of the Beaugency and other accredited sources of animal lymph.

THE WEEK.

TOPICS OF THE DAY.

At the recent meeting of the City Commissioners of Sewers—the first since the recess—Dr. Sedgwick Saunders, the Medical Officer of Health for the City, reported that since the last meeting of the Court, on July 18 last, the sanitary condition of the City had been good, that there had been a marked absence of diseases incidental to this particular season of the year, a singular immunity from complaints of nuisances or other defects, and a lower death-rate than had obtained since he took office eight years ago, the figures being—in 1874, 21·87 per 1000, and in the corresponding eight weeks of the present year, 13·43 per 1000. Dr. Saunders was questioned as to the correctness of the statement made by Sir Andrew Lusk at the Mansion House Police-court recently, to the effect that, by the order of the Commissioners of Sewers, cartloads of rubbish were emptied into the river Thames every day, and he explained that the whole of the rubbish was collected in catch-pits, which had been erected for this purpose at an expense of £20,000. The chairman, Mr. Felton, stated that comments having been made with regard to the supposed extensive destruction of fish at Billingsgate, he had gone into the matter, and found that the total destroyed did not average one-third per cent. of the quantity delivered there, and that, deducting the weight of the shells, it was not one-quarter per cent. The bad meat destroyed in the Central Meat Market averaged 14 per cent.

In his annual report as Medical Officer of Health for Camberwell, Dr. Bristowe, of St. Thomas's Hospital, remarks that the prevalence of small-pox in the parish has been altogether out of proportion to that presented either by London as a whole, or by any other metropolitan parish. Since the opening of the Deptford Hospital for the reception of small-pox cases, small-pox has never ceased to prevail in a greater or less degree in No. 4 Ward, on the borders of which the Hospital is situated; and at times its prevalence has been almost appalling, notably in the spring of 1879, and in the early part and again at the end of 1881. If the mortality from small-pox in London, or during the year 1881, Dr. Bristowe adds, had been as large in relation to population as that in No. 4 Ward, the deaths from small-pox would have been 9348, instead of only 2376; and under the same conditions, those in the parish of Camberwell would have been 458, instead of 190. During the year 1881, 890 cases of small-pox, and 499 of scarlet fever were dealt with by the sanitary inspectors; and 533 cases of small-pox were sent to the hospitals by the guardians. It is announced that Dr. Bristowe will be called upon to give evidence before the Royal Commission on Hospitals for Infectious Diseases. Legal action to bring about the closing of the Deptford Small-pox Hospital, or at least to confine its use to patients south of the Thames, is stayed pending the report of the Royal Commission.

It is with much regret that we are compelled to record a failure of justice in the case of Mr. Dudley Power. We last week gave the particulars of the inquest on the body of a coal-porter who was attended by this person, when the jury returned a verdict of manslaughter, and Dr. Danford Thomas committed him to take his trial on this charge. The accused was tried at the Central Criminal Court on the 14th inst., when it was endeavoured to be shown, on the part of the prosecution, that the powerful purgative administered by him to the deceased was the cause of death, since the patient was in reality suffering from pneumonia, and sedatives would have been the proper medicines to administer; and that, in all probability, if this course of treatment had been adopted, the man's life would have been saved. At the close of the evidence for the prosecution, the prisoner's counsel submitted that there was no evidence that his client had actually caused or accelerated the death of the deceased: there was no evidence, he said, with regard to the character of the medicine that was administered by the prisoner, and nothing to show that this medicine had either caused or accelerated the death. Unfortunately, Mr. Justice North, before whom the case was heard, took the same view, and the jury, under his Lordship's direction, returned a verdict of "Not guilty."

No revelations, however disgusting, have any power to affect the consumption of sausages by the lower classes. At Worship-street Police Court, recently, the Clerk to the Poplar Board of Works applied to the magistrate to make

an order for the destruction of some meat which had been seized as unfit for human consumption. Mr. Raymond, Inspector of Nuisances to the Poplar Board of Works, gave evidence that he had gone to the premises, 98, Ford-road, Bow, occupied by Messrs. Charles Shaw and Son, German sausage manufacturers. Before effecting an entrance he had noticed through a broken window a man hastily covering up something on a bench. On gaining admittance to the premises he went immediately to this bench, and, removing the covering, exposed a quantity of horse-flesh, which had been chopped up, and partially prepared for human food. He at once seized it as he considered it quite unfit for the food of man. The magistrate made an order for the destruction of the partially prepared sausage-meat, and granted a summons against the firm of manufacturers.

At a meeting of the Hygienic Congress now sitting at Geneva, M. Fauvel, an eminent authority on sanitary matters, read an important paper in relation to cholera. He said that the principal point at which to proceed against that plague was in Egypt. So long as Egypt was not attacked, Europe had nothing to fear; but should the Nile once be reached, nothing could save Europe. For that to happen it only wanted the embarkation in India of a few infected soldiers for the present seat of war. On the news of the intended transportation of troops from the East to Egypt, the English Government were officially requested by the French Cabinet to take the following indispensable precautions:—Thorough medical inspection, with quarantine at Aden of all vessels carrying soldiers from India, and inspection at Suez, with quarantine at Djebel Thor. M. Fauvel added that he had grounds for stating the opinion that the English Government had paid no heed to these suggestions. Should the mischief he feared be realised, the English would, he said, be alone responsible, and at the same time be the chief sufferers, since their army would be rapidly destroyed. On the other hand, the French Government had performed their duty, and were entirely clear of all responsibility for whatever might happen.

It might have been imagined that the last place in the country to require supervision by the Local Government Board would be Hawarden; and yet we read that the water-supply of that locality is so eminently unsatisfactory that Major Tulloch has been despatched to make an investigation. He reports that there are no less than sixty-two houses in the village without any supply at all, and of the surrounding hamlets the condition of one called Sandy Croft is lamentable. When rain-water fails, the inhabitants have to obtain water for drinking from the surrounding ditches. One of the wells yielded water highly impregnated with iron, while the water from another was found to be extremely bad. In the course of the proceedings, Mr. John Roberts, chairman of the Board of Guardians, and a large tenant-farmer on the Premier's estate, opposed the idea of placing the cost of supplying water on the rates, and advocated a separate scheme. Major Tulloch intimated that they could not alter an Act of Parliament for the sake of Hawarden. The Mayor next suggested a plan for supplying the village with water, and a discussion ensued, in which Mr. W. H. Gladstone, M.P., took part. Ultimately a more comprehensive scheme was proposed, and it was resolved to leave it for discussion by the Hawarden Board of Guardians at a special meeting.

The recent returns of the typhoid outbreak at Bangor show no decrease, something like 400 patients still remaining under treatment. The hospital tents in the Bishop's Park are being utilised for convalescents, and extra accommodation for those recovering from the fever has been secured in Upper Bangor. The outbreak has, however, extended to Bethesda, a populous quarrying district about six miles from Bangor, where it has assumed most serious proportions. Fortunately, up to the present time the rate of mortality has been low. A committee has been formed at Bethesda to organise a system of nursing and assistance for the poorer class of patients. The drainage, as well as the system of water-supply in this place, is of a very primitive character, and new works are being executed under the direction of Mr. Mansergh, C.E. No report has yet been received from Dr. Barry, who, more than a month since, was sent down by the Local Government Board to inspect the locality and furnish a report upon it.

A tradesman of Hackney was summoned at the Worship-street Police-court, by Mr. Higgins, the vaccinating officer of the parish, for not having had his child vaccinated. The defendant did not produce the child, and said he had a conscientious objection to vaccination; but the magistrate observed that, although many persons held a similar opinion, statistics and medical evidence were against them. No greater proof of the value of proper vaccination was needed than the example afforded by India, where small-pox, once so prevalent, had been nearly stamped out. The defendant replied that he should not comply with any order to vaccinate the child; and the magistrate therefore imposed a fine of 20s. for not producing the child, and, in making an order for the vaccination, warned defendant that he would be summoned from time to time, and fined on each occasion, unless he complied with the law.

Professor Abel, the War Department chemist at Woolwich Arsenal, has recently been engaged in taking samples of the water of the Thames, with a view to analysis, for the use of the Royal Commission sitting to inquire into the pollution of the river Thames. Analyses have already been made on behalf of the Metropolitan Board of Works, but the Royal Commission decided to have an independent analysis and report.

THE MEDICAL ARRANGEMENTS FOR THE ARMY IN EGYPT.

MUCH surprise was naturally excited in well-informed circles when, some little time since, the report reached this country that there was a great scarcity of medicines and medical stores for the use of the troops doing duty in Egypt. An inquiry was immediately instituted by Mr. Childers, and resulted in his expressing his entire satisfaction with the provision made by the Army Medical Department to meet all requirements for the sick and wounded. The complaint was the more extraordinary as upon the present occasion the whole of the medical arrangements for the campaign, after being carefully planned, were submitted to and approved by the Queen, who from the first manifested the greatest solicitude for the care and comfort of the sick and wounded of the expedition. It has been explained that the medical staff usually sent out with an army corps comprises 100 surgeons, but in this campaign the number has been increased to 120, so that with the officers and orderlies of the Army Hospital Corps, bâtmen, etc., there is a strength of nearly 1000 officers and men exclusively employed in attending to the wants of the sick and wounded. Twenty army medical officers are attached to the administrative medical staff, and 100 to the field-hospitals. The wounded from the front of operations are to be conveyed by bearers on ambulances to the movable field-hospitals accompanying the army, and they will afterwards be transferred to the advance depôt. Before any wounded are removed to the hospitals at the base, the Road Commandant is to ascertain that the road or canal is open and available for their safe transport. The sick and wounded, so far as it is practicable, are to be conveyed to Ismailia by water; but when necessary

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the railway will be made use of. When sufficiently recovered they will be sent to the base-hospitals at either Cyprus or Malta, and eventually return from those depôts to this country. After the successful assault upon the Egyptian position at Tel-el-Kebir, the Principal Medical Officer at the front telegraphed that fifteen wounded officers and 245 wounded men had been received for treatment. All the wounded were promptly removed from the field to the field-hospital on the canal bank, where medical appliances and comforts had been sent forward in ample quantities from Kassassin. Subsequently, all the wounded were placed in boats and carefully towed down the canal to Kassassin. Some of the wounds received are very severe, but all the patients are reported to be doing as well as could be expected, under antiseptic treatment.

HERPES AND PNEUMONIA.

We have been told that a case of left-sided acute pleuro-pneumonia now in St. Mary's Hospital has developed an outbreak of genuine herpes zoster of the left lower side of the chest. In this regard we may recall an instance very like the above, which Fernet recorded in the *France Médicale*, No. 32, 1882. A lady was attacked simultaneously with acute lobar pneumonia of the right lower lobe, with herpes of the palate and throat, of the nose, of the right side of the chest corresponding to the eighth intercostal nerve, of the last phalanx of the middle finger of the left hand, and finally of the external genitals. The pneumonia lasted six days; the herpetic vesicles dried up in fourteen. Fernet is inclined to regard this form of pneumonia as a "herpes" of the lung, due to a lesion of the "trophic" nerve, which function resides with the vagus. The frequent occurrence of naso-labial herpes on the same (not always) side as the lung-lesion is of interest in this connexion.

NOTIFICATION OF INFECTIOUS DISEASE IN LIVERPOOL.

At the weekly meeting of the Health Committee of Liverpool, held on the 14th inst., Dr. Taylor reported the death-rate during the week ending September 9 to be 26·1 per 1000. Zymotic diseases occasioned sixty-five deaths—a decrease of forty-six on the averages; eleven of these were due to fever, being only three above the average. We may therefore consider the threatened epidemic of typhus to be stayed. The following report, which embodies the opinion of the majority of the medical profession in Liverpool, was read:—"While anxious to promote every measure likely to check infectious disease, this meeting objects most strongly to compulsory notification by private medical practitioners. It believes that notification, even if it could be obtained, would be valueless alone; while the experience of such towns as Bolton amply proves that the attempt to obtain it compulsorily does but promote concealment and check sanitary progress. This meeting recommends that the following clauses be included in a local Health Bill:—1. To obtain from every dispensary and district medical officer early notification of cases of infectious disease, in the same manner as is now done from recently appointed medical officers of district schools and parochial medical officers: a fee of 2s. 6d. being paid for each certificate so forwarded. 2. To give every other medical man the option of making early notification on similar terms. 3. To make Section 200 of the Public Health Act applicable to Liverpool, a proceeding which would impose the duty of early notification on the tenants-in-chief of every sublet house in the city below a certain rental, and which would give the sanitary authority the power, which they do not now possess, of compulsory removal to hospital in cases which should seem to require it. 4. To demand that school board authorities shall require from every child who shall have been more than two days absent from school a certificate to the effect that neither he nor any member of the family with which he resides is affected by any infectious disease. 5. To appoint special medical inspectors of dairies under the Contagious Diseases (Animals) Act. 6. To obtain a place of refuge or quarantine in which, in case the closure of dwelling-house should be deemed necessary in consequence of infectious disease, the uninfected inmates might be temporarily lodged. 7. To hire nurses for attendance on those suffering from infectious disease who should be retained in their own home. 8. That early application should be made to the Local Government Board for the right to make house-to-house visitation, to provide for the speedy interment of the dead, etc., on the outbreak of any epidemic disease." The Chairman of the Health Committee said it was very important that they should have the opinion of the authorities of other towns where the Acts were in force for their guidance; and although the Committee had not authorised him, he had taken upon himself to write a letter to the head authorities of many places. The letter was read to the meeting. Dr. Hamilton objected to the replies to such a letter, on the ground that, coming from mayors, medical officers of health, etc., they would be one-sided. He thought they ought to endeavour to obtain the opinion of the medical profession, and to that end proposed that deputations be sent. Deputations are accordingly to visit Blackburn, Bolton, Edinburgh, Greenock, Warrington, Leicester, Nottingham, and Huddersfield; the replies to Mr. Forwood's letter are to be printed; and Dr. Carter has promised a great mass of evidence against notification. The Liverpool Health Committee, therefore, seem determined to sift the matter thoroughly, and their final decision will probably have considerable effect upon the question of notification throughout the country.

BETHLEHEM ROYAL HOSPITAL.

The text of the scheme signed by the Secretary of the Charity Commissioners for the admission of patients into Bethlehem Hospital who can contribute to their support, is to the effect that during a period of five years from the date of the order the governors may admit into the Hospital, or into the Convalescent Hospital connected therewith, and may provide for the maintenance and treatment therein, of not more than fifty male patients, in consideration of the payment to the governors of a weekly sum not exceeding two guineas, to cover the entire cost of the maintenance and medical treatment of such of the said patients so admitted. The period limited for the admission of such patients may be extended, and the number of and rate of payment to be made by them may be varied from time to time by the governors, with the sanction of the Charity Commissioners.

THE PARIS WEEKLY RETURN.

The number of deaths for the thirty-sixth week of 1882, terminating September 7, was 934 (506 males and 428 females), and among these there were from typhoid fever 63, small-pox 5, measles 7, scarlatina 1, pertussis 1, diphtheria and croup 24, erysipelas 7, and puerperal infections 6. There were also 59 from acute and tubercular meningitis, 172 from phthisis, 14 from acute bronchitis, 41 from pneumonia, 148 from infantile athrepsia (54 of the infants having been wholly or partially suckled), and 18 violent deaths (15 males and 3 females). The number of deaths is less than the mean of the four preceding weeks, and the deaths from epidemic diseases are still fewer in number than last week. Those from typhoid fever have diminished from 82 to 63, the admissions to the hospitals having also diminished from 254 to 197. It is a long time since so few deaths were regis-

tered for variola and diphtheria. The births for the week amounted to 1190, viz., 584 males (450 legitimate and 131 illegitimate) and 606 females (457 legitimate and 149 illegitimate): 95 infants were either born dead or died within twenty-four hours, viz., 55 males (34 legitimate and 21 illegitimate) and 40 females (27 legitimate and 13 illegitimate).

SUB-INDIAN RACES.

At the Westminster Aquarium, at the present time, are exhibited eighteen persons belonging to a race from the central provinces of Java which has never, up to the present moment, been scientifically described by European anthropologists, and the raw material before us affords a means of giving ample facts for the future classification of the Javanese race. We see for the first time the unique flexibility of the fingers, the slenderness of the wrists, and the peculiar abrogation of the tendinous attachments in the back, that are almost unknown in those individuals of the white races that have been described by the students of abnormal human myology. The performance given also possesses an interest for the student of music, inasmuch as the instruments performed on by these Javanese are not, on the whole, such as are consonant with the experience of ordinary Western observers of musical instruments. The scale seems to be hexatonic and pentatonic, and the instruments employed by the Javanese are, with only one exception, instruments of percussion. The present exhibition of a hitherto unknown race is one of value to the comparative anthropologist.

ON THE BACTERIA OF TYPHOID FEVER.

Dr. Ernest Almquist, of Stockholm, who had been assiduously occupied for eight months in proving the presence of a bacterium (microbe) in the living blood in typhoid fever, records in the *Nordiskt Mediciniskt Arkiv*, 1882, the conclusions at which he, so far, has arrived. He made these researches on a considerable number of preparations of normal and pathological blood before coagulation. After coagulation, formations are found in the blood, which are perfectly similar to bacteria, and are probably formed from torn meshes of fibrine. In the blood of persons suffering from typhoid fever, bacteria are frequently found, but very small and very few. Each bacterium has the appearance of a cylindrical, short, and slender rod, the extremities refracting light more powerfully than the middle, which appears more transparent. Still more rarely there are found in typhoid fever other formations—as short protoplasmatic threads, or as ovoid grains. On rare occasions he has detected the presence of an enormous mass of bacteria; but only for one or two days in the whole course of the fever. It is not certain that a greater number will be found in severe than in abortive cases, for in these latter Dr. Almquist has often discovered a considerable number. The bacteria are found most frequently in the second and third weeks. He thinks it necessary to search for pathogenic bacteria at the bedside of the patient, and then they are found in the blood in the purest possible condition. To obtain certain results, pure seeds must be obtained if it is wished to cultivate them or to inoculate an animal with them. Workers have, he says, too much neglected researches of this kind, and they have sought for the bacteria of a patient in the excretions, in the dead body, and even in the earth itself. In the case of typhoid fever much time and trouble are necessary, in order to find a number of bacteria sufficient to cultivate them so as to make them serve for inoculation; but it is worth the trouble, for the harvest, once found, soon gives results. In many infectious diseases it will be undoubtedly very easy to procure them, and perhaps it will be possible to fix the very day when the bacteria will be most frequently found in these cases. It may be presumed that the pathogenic bacteria can be perfectly cultivated in normal blood, especially in that of a person who has never been attacked by the fever. Dr. Almquist has cultivated this bacterium, taken on the eleventh day from the blood of one of the cases described, in a drop enclosed between two glasses, one of which was concave. From this drop there was prepared successively a series of generations, and from the second generation he succeeded in inoculating a dog, with good results. The animal was hardly ill, but on the fifteenth day he found the Peyer's patches much swollen, and containing characteristic bacteria. Without having yet finished his researches, Dr. Almquist thinks that he is able to form the following opinions, viz.:—The bacterium (*microbe*) of typhoid fever is found in the blood only by accident; it vegetates principally in the walls of the intestine, and only in very small numbers in ordinary cases, and, if more are found, he thinks they are thrombi of bacteria, which, having been detached from their places, circulate in the blood, broken into particles. He then describes six forms of bacteria, which are illustrated by microscopical drawings. He thinks, from his researches, that the microbe he describes cannot strictly be classed among the genera *Bacillus, Micrococcus,* or *Bacterium,* but that the series of developments comprises the following phases, viz.:—The spore shoots forth a thread; several threads form a network, a mycelium, or a zoogloea of threads. If the spores are completely formed in the threads, then the zoogloea of threads may be transformed into a zoogloea of delicate grains. Dr. Almquist has not yet concluded his researches, to which he intends shortly to return.

THE RATES OF MORTALITY IN VICTORIA.

At one of the meetings of the Institute of Actuaries during the past summer an interesting paper was read by Mr. A. F. Burridge, of the Equity and Law Life Assurance Society, on the Rates of Mortality in Victoria, and on the Construction of Mortality Tables from Census Returns by the Graphical Method of Graduation. The object of the investigation was to deduce from the registered vital statistics of the colony a mortality-table exhibiting the actual rate of mortality which had been experienced, and to compare that table with other standard tables, in order to note the effect of the different conditions of life in Victoria. Our interest in the paper lies with this result, not with the method of graduation employed. At the census of April 2, 1871, the population consisted of 401,050 males and 330,478 females; total, 731,528. The mortality-table was based on the returns of the census of 1871 and the deaths in that year. A full description was given of the method of graduation employed, which was the graphical method used by Milne in the construction of the Carlisle table. The following summary shows the average annual rate of each class of deaths in Victoria and in England and Wales:—

Average Number of Annual Deaths per 100,000 *of Mean Population.*

	Victoria.	England and Wales.
Zymotic diseases	513·84	503·87
Constitutional	218·25	420·54
Local	552·65	849·97
Developmental	235·27	355·15
Violent deaths	137·65	76·13
	1657·66	2205·66

It was shown that, on the average of nineteen years, the deaths from phthisis in Melbourne bore the relation of 21·97 to 10,000, while for country districts the rate from the same cause was only 8·57. The general rate from phthisis

throughout the colony was therefore 15·27 per 10,000. The death-rate from phthisis in Melbourne is found to closely approximate to that of the United Kingdom, but the rate for the whole of Victoria is considerably lower. The deaths from violent causes were found to be numerous, amounting to over 9 per cent. of the whole number registered, whereas in the mother country they only amount to 3½ per cent. The facts concerning the ages of infants dying under one year of age are recorded with greater minuteness in Victoria than in any other part of the world. The first year of age is divided into four periods, namely, under one month, one to three months, three to six months, six to twelve months. This careful registration of the deaths of infants gave the opportunity to investigate the mortality at several stages of the first year of life, and the result disclosed a very light infantile mortality. The rates for infancy and childhood are considerably more favourable than in this country. The general results of the investigation show a remarkably favourable rate of mortality throughout life. When compared with the English table the Victoria rate for males will be found to be lower throughout the whole of life; and this peculiarity is observable with regard to female mortality—that for all ages the mortality is lighter than for males.

THE HEALTH OF ENGLISH WATERING-PLACES AND HEALTH-RESORTS.

The mean annual death-rate for forty-six of the principal English health-resorts during the June quarter of the present year, as shown by the returns of the Registrar-General, was 16·8, the zymotic rate being 1·72 per 1000. These rates contrast favourably not only with those for all England and Wales, which were 19·0 and 2·45 respectively, but also with those of the more rural parts of the country, which were 17·8 and 1·94. Further, the mortality given is not always that of the actual watering-place itself, but in some cases that of the district or sub-district in which the watering-place is situated; and it is but just to these health-resorts to note that their death-rates are doubtless in some degree higher than they otherwise would be, owing to the very fact of their being health-resorts—of their being, that is, places to which persons in weak health flock in considerable numbers, in the hope of finding benefit. This, of course, affects the general death-rate much more than the death-rate from zymotic diseases. The rate of mortality per thousand from the principal zymotic diseases was 0·00 in Lyme Regis, Sidmouth, Dawlish, and Dartmouth; and did not exceed 1·00 in Whitby, Yarmouth, Lowestoft, Southend, Herne Bay, Eastbourne, Worthing, Bognor, Weymouth, Exmouth, Torquay, Ilfracombe, Weston-super-Mare, Aberystwith, Beaumaris, Bangor, Llandudno, Rhyl, Malvern, Leamington, Buxton, Matlock, and Harrogate. In the remainder it was above 1·00, but under 3·00, with the exception of Folkestone, where it was 3·38, mainly owing to diphtheria; of Blackpool, where it was 4·05, mainly from measles; of New Brighton, where it was 4·46, mainly from scarlet fever; and of Brighton, where it was 4·87, mainly from measles, whooping-cough, and scarlet fever. In none of the forty-six towns or districts was any death registered as due to small-pox.

ON THE MUSCULAR ATROPHY WHICH FOLLOWS CERTAIN INJURIES TO JOINTS.

A patient (male, aged twenty-three) came under M. Charcot's observation with the following history:—A year before, he had sustained a slight injury to his right knee by falling, but had walked for some distance directly afterwards. A trifling swelling of the joint supervened, and lasted for a few days; but the loss of power in that leg was quite out of proportion to the apparent amount of joint-trouble, and did not improve when this latter quite passed off. When he came to the hospital a year later the thigh was obviously wasted in front; the quadriceps femoris did not respond to the induced current, nor to a strong constant current. It was clear, therefore, that there was no "degenerative" atrophy such as occurs in infantile paralysis (when a muscle does not respond to a strong induced current, but responds unduly to a weak constant current, it is said to exhibit the "degenerative" reaction). It should be noted, however, that the rectus femoris and vastus internus (the vastus externus had shown some reaction to the other forms of electricity) responded to the influence of static electricity, and that a blow on the rectus femoris was followed by contraction. The knee phenomenon was present, and excessive on both sides. There was no ankle-clonus on either side. M. Charcot lays great stress upon two points:—1. There is no necessary relation between the intensity of the articular lesion and that of the paralytic and atrophic phenomena. 2. In cases of this kind it is the extensor muscles which suffer almost, if not quite, exclusively. The following is the mode by which M. Charcot would seek to explain these cases:—"The joint-lesion has, by means of the irritated articular nerves, reacted on the spinal centre, and there it modifies the centres whence the motor nerves, and the nerves which regulate the nutrition of the muscles, arise. There must exist in the spinal cord a more or less direct relation between the cells belonging to the articular centripetal nerves, and those of the motor and trophic nerves of the extensors, since the result is always constant, viz., that on them, or mostly so, the atrophy falls. . . . No other theory satisfies the conditions so well; and we are reduced to admit a secondary spinal affection, in consequence of which the paralysis and atrophy are set up. . . . But what is this modification of the spinal centre? It is not a profound modification of the cells of the anterior cornua,—that would be an infantile paralysis. We must, then, have to deal only with a sort of inertia, with a stupor of the cell element." To explain the exaggerated knee phenomenon, he supposes that there is a morbid state of exaggerated reflex excitation in the whole extent of the spinal cord outside the area which he has already assumed to be in a state of torpor. M. Charcot would explain in the same way the paralysis and atrophy which are found in chronic articular affections, *e.g.*, chronic rheumatism. He notes that in these cases also the extensors are especially liable to be affected, and that the so-called "tendon reflexes" are in excess.

THE SANITARY REPORT ON GATESHEAD FOR THE YEAR 1881.

The Medical Officer of Health for the borough of Gateshead (Mr. Charles Green) is of opinion that the year 1881 was an exceptionally healthy one throughout the country. In his annual report on the sanitary condition of his district for that period, he says the summer was not sultry nor the winter severe, consequently diarrhœa and dysentery, and bronchitis and pneumonia, did not swell the mortality returns to the extent which has usually to be recorded. Out of the 1342 deaths registered in the borough during the past year, only 166 belonged to the zymotic or preventable class, against 347 tabulated to these diseases in 1880—a decrease which, the report remarks, justifies the assumption that the sanitary condition of the town is improving. The total death-rate for the year under notice was 20·4 per 1000 of estimated population, or about 1·6 per 1000 below the average death-rate of England and Wales. Mr. Green bears testimony to the fact that the Local Authority's fever hospital proved itself a most useful institution during 1881, the large number of fifty-eight cases, chiefly of typhus and

small-pox, having been removed to it during the period, principally from large centres of population. The staff of this Hospital has, however, been most unfortunate. During 1881 the matron and a nurse both died of typhus fever, and another nurse was for a long time in great danger; since the end of the year, moreover, two others—a nurse and the kitchen girl—have taken the disease, making five cases in all. The report suggests that, as the Authority is on the point of obtaining an ambulance car for the use of the town, the present would be a suitable time for completing the sanitary arrangements by erecting a central oven for the disinfection of beds, etc., the fumigation now practised being much inferior to the use of excessive heat for this purpose.

H.R.H. THE PRINCESS OF WALES, with her three daughters, Louise, Victoria, and Maud, accompanied by the Queen of Greece, paid a private visit to the Royal Hospital for Children and Women, in Waterloo-bridge-road, in August last. Each ward was closely inspected, and every patient's case described by the Resident Medical Officer. Besides inspecting the wards and roof of the building, their Royal Highnesses descended to the out-patient department and kitchen. The visit of the Royal party lasted more than an hour. This is the second occasion this year on which H.R.H. the Princess of Wales has visited the Hospital.

IT is stated that H.R.H. Prince Leopold, Duke of Albany, has consented to accept the post of President of the Parkes Museum, which, as our readers have already been informed, is about to be reopened in Margaret-street, Cavendish-square.

THE forthcoming session at the London Hospital Medical College will open on October 2, when an introductory address to the past and present students will be given by Mr. Jonathan Hutchinson at 8.30 p.m. A *conversazione* will follow the address.

THE examination for certificates in Sanitary Science of the University of Cambridge will begin on Tuesday, October 3. Candidates must send in their names to Professor Liveing, Cambridge, on or before September 28.

THE annual congress of the Sanitary Institute of Great Britain will commence at Newcastle-upon-Tyne, on Tuesday, September 26, under the presidency of Captain Douglas Galton, R.E., C.B., F.R.S., who will deliver the opening address at 8 p.m. on that day. Dr. Denis Embleton will preside in the Section of "Sanitary Science and Preventive Medicine;" Mr. H. Law, C.E., in the Section of "Engineering and Architecture;" and Mr. Arthur Mitchell, M.A., M.D., F.R.S., in the Section of "Chemistry, Meteorology, and Geology."

ARTIFICIAL FEEDING OF INFANTS.—Dr. Gill publishes in the *New York Med. Record*, August 19, a recipe for the preparation of cow's milk for bringing up infants by hand when a wet-nurse is unattainable. He adds ten grains of pepsin to one pint of milk, beating it in thoroughly, and then, covering the milk, places it on a warm stove, there to stand undisturbed until curded—sometimes as long as thirty minutes. When it has become solid, it should be beaten up with a spoon, and strained through a coffee-sieve (if large enough to hold the curd) or a thin, strong bag. Half as much water as whey is to be added, and the whole to be weetened to the taste of mother's milk. Occasionally the milk will not curd, when a little more pepsin should be added, and more time given. This method disposes of the indigestible part of the casein by retaining it in the strainer or sieve.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

DR. PARSONS ON DIPHTHERIA IN THE SALE URBAN SANITARY DISTRICT.

THE Urban Sanitary District of Sale, conterminous with the township of the same name, is situated in the north of Cheshire, five miles south of Manchester, of which it may be considered an outlying suburb. The district appears to have been until recently free, or nearly so, from diphtheria. But in 1880 twelve deaths were reported from that disease (of which eight took place in Sale), and in 1881 thirty-eight, of which number twenty-six were in Sale; in addition two deaths occurred in Sale in the first quarter of the present year, making the total number thirty-six. Dr. Parsons was accordingly despatched to the locality in April last, by the Local Government Board, to institute an investigation into the cause of these outbreaks. Of the origin of the outbreak nothing was known, and, after careful inquiry, Dr. Parsons was compelled to admit that the mode of diffusion of the disease was as obscure as its origin. Respecting many of the cases, especially the non-fatal ones, only imperfect information was to be procured, owing to the particulars not having been kept in writing, and in many instances to the families affected having changed their residence or left the district; and therefore the date of commencement could commonly be only approximately ascertained. In the present instance the disease affected females much more frequently than males—out of seventy-four patients whose sex was recorded, nineteen were males and fifty-five females; but, as Dr. Parsons observes, a tendency to greater incidence upon females is one of the known characteristics of diphtheria. Again, the mortality occurred chiefly among children under ten, to whom an attack of the disease is more dangerous than to older persons. Different households were also differently affected; thus, in one eight cases (not all members of the same family), and in another seven cases, occurred without a death, while in a third three out of four patients died, and in a fourth two out of three persons attacked, and in four instances two members of a family were affected and both died. There did not appear to be any difference in the sanitary or social circumstances of the households invaded, to account for this difference in the behaviour of the disease. In almost every instance there were other children living in the same house who escaped the disease. The following hypotheses, Dr. Parsons adds, may be considered in reference to the outbreak, but none of them alone, or in combination, will satisfactorily explain all the circumstances of the case:—1. Infection from personal intercourse. Two or three instances were met with in which neighbours' children, who had visited or played with those of an affected household, were shortly afterwards affected; in most cases, however, direct infection from a previous case could not be traced. 2. School attendance. In only one instance was there any suspicion that the disease had been contracted at school. 3. Propagation by wind. No facts were observed suggesting that the disease had been transmitted by this mode. 4. Water-supply. The water supply of the district is obtained from the mains of the North Cheshire Waterworks; these also supply the neighbouring places, which did not suffer from diphtheria to anything like the same extent. 5. Milk-supply. This was procured in different instances from about fourteen different dealers; other patients used condensed milk, or none at all. 6. Offensive trades. In three instances it was stated that, before the sickness occurred, bad smells had been noticed from heaps of dung and decomposing blood and offal in connexion with slaughter-houses. These heaps have since been done away with. 7. Sewer exhalations. Some complaints have been made of offensive effluvia from the sewer grids; the sewers, however, were found on inspection to be in good working order, and two of the houses in which diphtheria occurred had independent drainage, not connected with the town sewers. 8. Unsanitary condition of dwelling-houses. In a considerable proportion of the houses in which diphtheria occurred, sanitary defects were found. It is probable, however, that similar defects are common in other houses in the locality in which diphtheria had not occurred.

Dr. Ballard on the Sanitary Condition of Ashton-under-Lyne.

The high death-rates recorded on various occasions for the borough of Ashton-under-Lyne, as shown in the returns of the Registrar-General, notably in the fourth quarter of 1880, decided the Local Government Board to institute an inquiry into the probable causes of this excessive mortality; and accordingly, in the early part of the present year, Dr. Ballard was deputed to carry out an investigation. In the outset of his Report Dr. Ballard explains that the soil of the locality is for the most part a wet clay, and to the westward of the town the land is boggy; therefore, as might be anticipated, the atmosphere is habitually humid, and fogs are very prevalent in the winter months—fogs which are sooty with the smoke from factory chimneys. The chief industries of the place are cotton manufactures and felt hat-making, in both of which women are largely employed. One result of this is that young infants are deprived of proper maternal care, since their mothers are anxious to return to mill-work as early as possible after their confinements. Altogether, the Report says, there is much in the natural and industrial features of Ashton to favour disease and shorten life. There are few borough towns, Dr. Ballard remarks, in which is to be found so large a proportion of low-rented small houses, chiefly occupied by the labouring and artisan population, while few houses are let off into tenements. The streets are paved with stone sets, but so badly laid that the water does not run off, and the thoroughfares remain damp and sloppy for some days after the cessation of rain. For the most part the town is built very regularly in rectangular blocks of houses; these blocks are long and narrow, the space between the backs of the houses which form their long sides, being very small—not more, as a rule, than twenty or thirty feet,—while the ends of the blocks are, for the most part, shut in by the houses of the cross streets. The interior of each block is thus constituted into a long, narrow well, in which the air is necessarily almost always stagnant. As usual, the arrangements for excrement removal were found to be faulty; and one source of the water-supply was admitted to be of doubtful fitness for the purpose, the water being collected from tilled lands. Dr. Ballard concludes that the circumstances which, in addition to the character of the mass of the population and the nature of their occupations, appear to exert an injurious influence upon the health of Ashton, and to have raised the death-rate above the normal standard, are mainly the following:—1. The nature of the soil of the town and its neighbourhood, for the most part highly retentive of moisture, rendering the atmosphere habitually damp, and in winter cold and foggy also. 2. The fact that the effect of this natural condition is not counteracted so well as might be by good paving of roadways and yards. 3. The density of some of the older parts of the town. 4. The narrowness of the blocks of houses in the newer as well as the older parts of the town, leading to defective aeration of the centre of the blocks. 5. The lack of due sewer ventilation, with, in some parts, the existence of facilities for the sewer-air entering dwelling-houses, and, in some parts, the total absence of proper means of carrying away liquid refuse. 6. The faultiness of the privy arrangements, both as relates to construction of privies and to their position, and the habitually long retention of their contents. Other faults, Dr. Ballard adds, such as the neglected condition of the common lodging-houses and of cow-houses, have, not improbably, assisted to lower the standard of health among certain portions of the population; while the admittedly impure water from Knotthill has presumably not been altogether free from blame.

Excision of Primary Syphilitic Induration.—Dr. Tomaschewsky, writing of an investigation which he had conducted in Prof. Tarnowsky's clinic to ascertain what effect excision of primary syphilitic induration exerts upon the appearance and course of secondary symptoms, states as the result of trials made in fifty-eight cases in which excision was performed at the tenth to the fourteenth day of the disease, that these were nowise influenced, the course of the disease continuing just as if no excision had been made.—*Petersb. Med. Woch.*, September 9.

FROM ABROAD.

Directions for Hypodermic Injections.

Dr. Seiler of Philadelphia, writing in the *Philadelphia Medical and Surgical Reporter* for July 1, observes that there are still many practitioners who are either ignorant of the advantages and mode of practising hypodermic injections, or feel alarmed at the accidents which their employment has given rise to. Feeling, however, assured that no one who is thoroughly acquainted with this mode of treatment will fail to resort to it when the opportunity offers, he is desirous in the present paper of giving information on the subject, bearing in mind the wants of those who may have been prevented by circumstances from acquiring this necessary knowledge.

First he speaks of the syringe, remarking that those syringes which command the highest prices are the best. One with a metal case, a glass cylinder, and a graduated piston-rod is to be preferred, but any syringe may be bought which fulfils the following indications:—"When water is drawn into or ejected from the syringe, the operator must note that the piston does not give a sudden jerk, because, whenever such is the case, the cylinder has not all over the same width—a serious fault, making the syringe useless. Further, when the needle is attached and the fluid injected under the skin, not a drop of the solution should pass behind the piston-head; if it does, the latter must either be made tightly fitting, or another syringe procured. None of the fluid should pass out between the glass cylinder and the metal case. Then the physician must see that the rod is correctly graduated. Some syringes, when indicating, for instance, five minims, contain in reality seven or more, and if the operator is not aware of this fact, dangerous results might ensue. Lastly, the needle must be without a leak, very sharp, and at least an inch in length. Any hypodermic syringe answering the description given will fulfil its purpose."

Morphia is the remedy most frequently employed for hypodermic injections, and one-sixth of a grain is the proper dose to begin with in the adult. The best plan is for the practitioner to carry powders with him, each containing one-sixth of a grain, and to dissolve one of these in ten minims of lukewarm water immediately before using it. Morphia might also be kept in solution, and all other remedies are best so kept. The dissolving fluid should be distilled water, hot at the time of preparation. To each ounce one grain of carbolic acid should be added, and the solution passed through filtering paper into a bottle, the wide mouth of which can be tightly closed by a stopper. Exposure to the air should be avoided, and the solution when used should be clear and without sediment. The following are the formulæ which Dr. Seiler employs, a drop of carbolic acid per ounce to be added to each, except that of pilocarpin and quinia:—1. Morphia gr. xvj., ad aquæ ℥j.; five minims containing gr. ¼. 2. Atropiæ sulph. gr. ss., ad aquæ ℥v.; six minims containing gr. $\frac{1}{30}$. 3. Strychniæ sulph. gr. j., ad aquæ ℥ss.; five minims containing gr. ⅛. 4. Quiniæ sulph. gr. xxj., ad solut. acid. tartar. concentr. ℥j.; twenty minims containing gr. vij. 5. Pilocarpiæ muriat. gr. iv., acid. muriat. ℥j., aquæ ℥ss.; ten minims containing gr. ½. Besides the above, the following substances are also often employed:—Ergot, of which a special fluid extract (dose about ℥vj) is made for this purpose; it is, however, apt to clog the needle, and this, as well as the syringe, should be thoroughly cleansed with hot water after using. Arsenious acid may be used in the form of Fowler's solution (℥iv. and more). For iodine, Lugol's solution (℥v. or more) is admirably adapted for hypodermic use. Solutions of nitrate of silver, corrosive sublimate, or caustic potash, as also chloroform, chloric ether, brandy, and aquæ ammoniæ, are frequently employed.

Whenever an injection is made, the following conditions must be observed:—The syringe being in perfect order, we either draw into it the exact amount of the solution to be used, or better, we fill it entirely; and by moving the small screw down the piston-rod to the number of minims wanted, prevent the possibility of a larger amount than intended from escaping. In this way all the air in the syringe is better got rid of—a very important matter. This is best done by holding the syringe with the needle

upwards, and then pushing the piston until all the air is out and only the fluid escapes. We must be certain that the syringe contains no air. The place for the injection should be as nearly as possible over the part to be acted upon. If there is no special part, and we wish to make a general impression, the injection should be made near the deltoid or into the walls of the abdomen, or into the integument covering the inner and anterior side of the thigh. At these places least pain is felt, and absorption is more rapid. We must be exceedingly careful not to push the needle into a vein, as the most alarming symptoms may ensue. The place being selected, a fold of the skin is raised by two fingers, the needle thrust rapidly into the subcutaneous areolar tissue, and the solution injected. The needle is then withdrawn, a finger being placed immediately over the opening in the skin, and held there, while the operator tries by moderate pressure to spread the injected fluid. If from using a rusty needle, or from air having been present in the fluid, or other cause, there should be signs of the formation of an abscess, we may usually prevent this, or decidedly limit it, by painting the part three times daily with tincture of iodine, until all swelling and hardness have disappeared. Should an abscess, however, form, only a very small opening should be made with a sharp-pointed bistoury. But if the injection be made carefully, with observation of all precautions, the moderate and soft swelling which follows the injection will generally disappear within forty-eight hours.

Dr. Seiler next illustrates by examples the indications for the employment of the various solutions. Called to a case where the first indication is to relieve pain, as in gastralgia, colic, etc., nothing will act so rapidly as *morphia*, repeating the injection if decided relief is not produced by the first. In the majority of cases the practitioner can return home within half an hour, leaving the patient in a quiet sleep. In delirium tremens our chief anchor is still morphia, especially in cases in which the weakened condition of the heart forbids the use of chloral. The injection acts like a charm, its rapid effects surprising those who have hitherto relied on the internal use of opium. Another indication for the injection is found in cases where vomiting or nausea prevents opium being given internally, *e.g.*, in peritonitis. From published cases it would seem that we possess in the hypodermic use of morphia as reliable an antidote against poisoning by belladonna, as atropia, so used, has proved successful in opium-poisoning. Stubboru cases of myalgia, especially of lumbago, will often yield to combined injection of morphia gr. $\frac{1}{3}$ and *atropia* gr. $\frac{1}{100}$. In cases of failure of the heart's action, especially when the capillaries of the surface seem to be emptied of blood, atropia has furnished the happiest results. *Strychnia* is perhaps our most reliable medicine in paralysis, when all inflammatory conditions have passed away; and the hypodermic method is the most effective way of employing it, especially in local palsies. *Quinia* is most advantageously given hypodermically in many cases of malaria of the congestive type, when rapidity of action is of consequence; and a third of the internal dose only is required. There are few modern remedies which have met with such success as jaborandi, or its alkaloid *pilocarpin*. Whenever we wish to produce powerful diaphoresis, stimulate absorption, and increase the flow of urine, and when for various reasons we cannot apply this remedy by the mouth, its hypodermic injection is indicated, and has saved many a patient from a premature death. *Ergot* has been employed hypodermically with success in enlargement of the spleen and thyroid, injected over the hypertrophied organ; and if we aim at producing contractions of the uterus within as short a time as possible, or to stop internal capillary hæmorrhages, it should be used subcutaneously. After enumerating various other substances which may be advantageously used hypodermically, Dr. Seiler thus concludes his paper:—

"The main points in favour of all hypodermic medication are the following: the rapid action of the remedy, which enters the circulation immediately, without having to undergo chemical alteration in the stomach; the fact that drugs may be introduced into the system when the irritability of the stomach would forbid their administration by the mouth; and the possibility of getting the full effect of a medicine in cases of inability to swallow or of unconsciousness. But, in conclusion, we wish to draw attention to one great danger in the employment of hypodermic injections of morphia. Most cases of morphia-habit find their origin in the reckless employment of such injections by the attending physician. The latter never should discharge his patient, in cases where a frequent use of this remedy was necessary, until he has convinced himself, by gradual withdrawal of the drug, that no habit has been established, and until the patient has not experienced any restlessness for several days, and has enjoyed a quiet sleep for several nights, without the use of morphia. A physician who, in such cases, neglects this precaution is morally, if not criminally, responsible if the deplorable habit should become established. We may add that the administration of bromide of sodium, in doses of thirty grains, three or four times a day, will greatly assist in making the gradual withdrawal of morphia in these cases less painful and more easy, and that the fluid extract of Jamaica dogwood, in doses of twenty to forty drops or more, will assist in obtunding sensibility and procuring sleep. Whenever we are obliged to continue, in any case, hypodermic injections of morphia for a longer time, we always engage, after the total withdrawal of the remedy, a reliable nurse for two days and two nights, to watch the patient, as the statements of the latter under such circumstances have to be taken *cum grano salis*. Besides, the contraction of the pupils, even in dim light, will generally tell the physician that his patient is still continuing the morphia."

DR. HARRIS ON STATISTICS OF THE CÆSARIAN SECTION.

Dr. Harris, in the July number of the *American Journal of the Medical Sciences*, refers to some remarks we (*Medical Times and Gazette*, April 8) and others have made as to the too favourable character of the statistics in the Cæsarian operation in America, which he has so laboriously collected, owing to the tendency which operators have to publish successful cases only. In this article Dr. Harris fully admits that unsuccessful cases are often kept out of print, but he adds that this "does not prevent their being obtained, if the statistical hunter is sufficiently persevering and not easily discouraged by the amount of time and labour required." Moreover, on the other hand, "some of the most encouraging cases here and in Great Britain were withheld from publication by their operators, and not obtained until after their death." Dr. Harris, not content with summing up the results of cases recorded in books and journals, has entered since 1869 upon a laborious system of correspondence on the subject, so that during twelve years the whole of the United States has been thoroughly searched—one proof of which is the fact that 55 unpublished cases were thus obtained in addition to the 69 cases already published. "Had I stopped with the 69," he says, "I should have shown a mortality of only 46½ per cent., but the addition increased the mortality to a fraction above 57 per cent. As the record of the United States now stands, we have saved 53 out of 124 cases. The 55 unpublished cases, although adding largely to the percentage of deaths, were by no means so fatal as might have been presumed; for 16 of them recovered, or as many as were saved out of the first 100 cases in Radford's statistics of Great Britain.

"I have never claimed," as supposed, "that we had a mortality of only 25 per cent. This, I presume, has been founded upon a statement to the effect that but 28 of the 124 operations had been performed in good season, rated by the time in labour, and the condition of the woman when operated upon, and that 21, or 75 per cent., of the operations resulted in safety to the mothers. Of the 28 children, 23 were delivered alive, of whom 4 lived but a short time, leaving 21 mothers and 19 children as the results of 28 *early* or *timely* gastro-hysterotomies. To sum up, we have had 124 Cæsarian operations in the United States, 7 in the West Indies, and 1 in Mexico, with 60 women saved, or 45$\frac{6}{7}$ per cent., in North America. . . . . The claim has recently been made by one of our own writers, that European operators are more inclined than Americans to publish their cases. This may be true in a measure as to the present, and in particular as to Great Britain, where weekly journals are in active search for medical intelligence; but personal experience leads me to a very different opinion as to the past, and particularly in regard to some of the continental countries. As to England herself, I have only to cite the fact that, notwithstanding the Cæsarian searches made and published on three separate occasions by the late

Dr. Radford, he failed to secure the only case in his country in which the operation had been performed twice upon the same woman, although the parties resided at Sheffield—only thirty-five miles distant. Had Dr. Radford sought out unrecorded cases, as I have done, through correspondence, instead of by notices in journals, he would have hardly failed to learn of the operations by the late Mr. Henry Jackson and his son. There is this difference between Dr. Radford's 'communicated' cases and mine. His, with very few exceptions, were on the eve of publication, and mine were chiefly old lost cases, or such as there was no intention of ever reporting. Of the 55 unpublished cases, 13 were obtained after the deaths of the operators, and 9 through other physicians, either present or having knowledge of the operations."

A CASE OF TUMOUR OF THE BRAIN.

PNEUMONIA TERMINATING IN GANGRENE—DEATH.

By R. A. JAMIESON, M.D.,

Consulting Surgeon to the Imperial Maritime Customs of China.(a)

THE following case is interesting as an example of a complication of diseases. That the existence of tumour in the posterior portion of the brain gravely influenced the course of the pneumonia can hardly be questioned:—

The patient, a man of about forty years of age, consulted me in October, 1880, about his sight, which had been failing for about two years. As he entered my room I noticed that his left leg dragged a little, and that progression was unsteady. His speech was jerky in character, alternating between rapidity and drawling. Intelligence was evidently unaffected, for he gave a lucid and lengthy account of his symptoms, extending over about three years. He had never had syphilis, nor was he aware of any nervous or other disease in his family. He was married and had three healthy children. His health was good until at an outport he sustained a sunstroke in 1878. He knew very little about what occurred to him then, further than that his life was despaired of for several days. Convalescence was slow, and shortly after he resumed his occupation he observed that sight was failing nearly equally in both eyes. After some ineffectual treatment he returned home, where he placed himself under the care of the late Mr. Soelberg Wells. His sight steadily became worse, and finally he was (according to his own account) told that perhaps a sea-voyage might benefit him, and was therefore recommended to return to China. This he did, arriving in Shanghai some time during last summer. He soon found that he was unfit for work of any kind, as his uncertainty about the size and shape of surrounding objects made it almost impossible for him to guide himself. Hence his application to me. He now complained of severe frontal pain of a paroxysmal character, accompanied by stiffness of the neck muscles, and generally worse at night. There was frequently recurring nausea, never followed by vomiting, except when he artificially induced it for the sake of relief. He constantly felt giddy, but never fell. I ascertained that this vertigo was not increased by shutting the eyes and taking two or three steps. He had occasionally noticed that the fingers of the left hand were affected by an involuntary and fugitive contraction. There was nowhere any defect of common sensibility. The pulse was 60, of high tension; the temperature under the tongue (4 p.m.) was 99°. On superficially examining the eyes, the first thing that engaged the attention was the existence of double horizontal nystagmus, which presented this peculiarity, that the oscillations were more violent when the patient was desired to direct his eyes in an upward and oblique direction, and obviously interfered with his power of doing so. He was quite unable to read any type or to distinguish colours. The pupils were sluggish, but equal and of natural size. Ophthalmoscopic examination revealed double optic neuritis. The circumference of both discs was cloudy, but degeneration was farther advanced in the left eye than in the right. The left papilla was atrophied, looking like a flat depression (direct image), while a sort of halo was formed round it by closely set radiating streaks of a dull white. The arteries were hardly to be made out, but a few veins were distinct. On the right side the disc was pale, but many large and tortuous veins, as well as a few shrunken arteries, were easily brought into view. There had been no pain previous to the ophthalmoscopic examination, but next day the patient complained much of a feeling of tension in both eyes, with diminution of the little power of vision he before possessed. The pain passed away in a day or two, but he maintained subsequently that the beam from the mirror had certainly harmed him in a permanent manner.

He returned three or four times at short intervals, and then I lost sight of him for a few weeks. On November 19 I was sent for. Five days before he had had a severe shivering fit, followed by diarrhœa, agonising headache, and pain in the right side, increased by any attempt at deep inspiration. He had been sleepless for three nights. His skin was yellow and dry, his expression stupid, though he described his subjective symptoms clearly enough; his features were drawn, his eyes sunken, and his voice reduced to a whisper. There was a purple flush on the right cheek. The lips were blue; the tongue dry, red at the point, brownish-yellow in the centre. Pulse irregular and dicrotic, 120; temperature under tongue 103·5° (11 a.m.); respirations 36. Although the breathing was of the panting character, no complaint of dyspnœa was made. Cough was constant and very painful; expectoration scanty, and of the colour and consistence of prune-juice. Breathing was abdominal, but so far as the chest expanded at all, both sides appeared to expand equally. There was absolute, high-pitched dulness on percussion over the lower two-thirds of the right back, with crepitation and bronchophony over the same area, and an intense sonffle over the space of the palm of a hand in the centre of the crepitating area. Supplementary respiration was being carried on by the upper two-thirds of the left lung, but the lower third was dull; breath-sounds were absent; there were no râles audible, no crepitation, and a complete absence of vocal vibration even when the patient spoke with effort. An emetic of ipecacuanha, followed by free administration of wine, relieved the more urgent symptoms. The skin became moist, the diarrhœa was checked, and quiet sleep for four hours was obtained. Dry cupping to both sides, and jacket poultices of linseed-meal sprinkled with mustard, brought about temporary improvement. Milk was given in large quantities, alternating with wine, strong soup, and coffee. Next day the expectoration was more profuse, and the patient for an hour at a time would cough up rusty sputa of the ordinary pneumonic character. This would be succeeded for several hours by the prune-juice expectoration first observed, and during the remainder of the illness there was but little change in this respect. On the tenth day from the initial rigor (November 23) all the symptoms were aggravated. The expectoration was black and viscid, and exhaled a fœtid smell, which was distinguishable equally in the patient's breath. The areas which before were crepitant were now the seat of large moist râles; the patient hardly slept, and when he did he muttered incessantly. When roused he expressed his pleasure at feeling so well. The respirations were 40, the pulse 140, temperature in mouth 104°; urine scanty, s.g. 1026, no albumen, and showing a faint trace of chlorides. The patient now gradually sank, still, however, taking milk and wine in considerable quantity. The expectoration became scanty merely because there was not sufficient strength to enable it to be expelled, but the little that was coughed up was horribly offensive. On the 29th a necessarily brief examination showed that respiration was cavernous throughout almost all the right lung and in the left axillary region. Below the nipple line on the left side nothing could be made out, and the back was not examined. Intelligence was preserved up to the afternoon of this day. In the evening several large and involuntary passages, chiefly of altered blood, occurred from the bowel, and death followed during the night.

Post-mortem, twelve hours after Death.—Liver, spleen, and kidneys not particularly examined. All were softer than natural, but otherwise apparently unaltered. Mucous surface of small intestine injected throughout, the bowel containing much grumous fluid. Stomach healthy but for a small, partially healed ulcer on the posterior surface, close to the pylorus. Both pleuræ were thickened and opaque, small, old adhesions existing in several places. The left cavity contained about sixteen fluid ounces of reddish serum without any

(a) Extracted from the *Medical Reports of the Imperial Maritime Customs of China* for the half-year ended September 30, 1881.

flakes of lymph. Soft yellowish lymph was smeared over the surface of the right pleura, and a small quantity (about five ounces) of bloody and purulent fluid was found in its cavity. At the apex of the left lung was a calcified deposit about the size of a walnut and of the consistence of mortar, the lung immediately round it being dark but firm. On the right side, at the apex, a like calcified deposit was found, but much harder than the other. It was the size of a Brazil nut, and completely encapsuled in firmly condensed tissue. Corresponding to it was a depressed, adherent scar on the pleura. On both sides the deposit was quite cut off from the general lung-tissue, which at the distance of half an inch from its border was healthy. The middle and lower lobes of the right lung and the lower lobe of the left were broken down into a blood-soaked pulp, which retained little or nothing of the original shape or appearance of the lung tissue, and was in many places diffluent. The lower portion of the upper lobes was congested, but between this and the patches of deposit in the apices the front of both lungs was reasonably healthy. The backs, however, were so gorged, or rather soaked, with blood as to be impervious to air. The small portions which remained available as breathing-space crackled under pressure between the fingers. On both sides, but more extensively on the right, the lining membrane of the bronchial tubes was purplish (soakage); the smaller tubes contained much blood-stained mucus and bloody fœtid fluid, while those of the first and second order contained a reddish exudation of sufficient consistence to be partially withdrawn without breaking. The heart was large. The right ventricle was full of soft clot, with several nearly colourless concretions among the columnæ. A firm white clot occupied the pulmonary artery, extending a little way (about half an inch) on both sides beyond the bifurcation. There was nothing particular to be noted on the left side. A mass of enlarged glands in the posterior mediastinum compressed and sensibly flattened the right bronchus. Both pneumogastric nerves were carefully dissected out to the points of their exit from the skull, and were found to be (to the naked eye, at least) perfectly healthy. When the skull-cap was removed, the dura mater presented a natural appearance on the convexity, but on attempting to remove the brain a small collection of greenish pus welled up at the right side of the foramen magnum from between the membranes and the bone. The dura mater was highly injected for about the space of a dollar all round the spot where the pus lay, but no disease of bone could be discovered in the neighbourhood or elsewhere. There were no clots in the sinuses, which, moreover, were not remarkably full of blood, though the veins of the pia mater were gorged. The brain was so soft that it hardly retained its shape when laid on the table, and the cerebellum was almost diffluent—so diffluent, in fact, that no satisfactory section of it could be got. The ganglia at the base of the brain were apparently healthy; the lateral ventricles contained each about a fluid drachm of turbid fluid. The choroid plexus was dark red from distension. The central white substance of the brain was throughout of a yellowish tinge, mottled by puncta cruenta, which could not be washed away by a gentle stream of water. At the posterior extremity of the centrum ovale on the right side, and occupying nearly the entire thickness of the couche moyenne, a single, more or less elastic, and highly vascular tumour was discovered, of an ill-defined oval form, about an inch and an eighth in length by half an inch in width. This was surrounded by softened medullary substance for a distance of about a quarter of an inch, beyond which limit this substance, though sharing in the general softness of the whole brain, did not seem to be specially affected by the vicinity of the tumour. An extremely fine layer of apparently healthy brain-tissue separated the lower surface of the tumour from the digital portion of the lateral ventricle. Corresponding to the inner surface there was a slight bulging inwards (perhaps accidental) of the præcunens. In the left hemisphere, in the region exactly corresponding to the tumour, there was a softened and vascular patch surrounding an ochre-coloured spot, evidently the remains of an old small hæmorrhage. This ochre-coloured spot was about the size of a pea. The tumour was indistinctly trilobed, and under a hand-lens seemed to be composed of a soft granular substance, exhibiting numerous minute extravasations on its cut surface. Under the microscope (+ 250) it exhibited "cement granules" and compound corpuscles, without a trace of nerve fibres. It was therefore a glioma. I am inclined to think, although I cannot at the moment find authorities to support my opinion, that the occurrence of glioma in the posterior portion of the centrum ovale is rare.

I have dwelt at what will perhaps be considered extravagant length on this case. My excuse is partly the interest which it excited in my own mind; for when not expecting that I should have a chance of controlling the diagnosis by a post-mortem examination, I had thought it probable that the patient was suffering from a tumour in the cerebellum. It was at least true that the entire cerebellum was the seat of degenerative change, but there was no evidence of either hæmorrhage or tumour in its substance. Even with the vastly increased means of cerebral localisation that we now possess, accurate diagnosis of the precise seat of a tumour is often, if not generally, impossible. Whether the tumour had anything to do with hurrying the pneumonia into the gangrene which closed the scene, need scarcely be discussed. Just as inflammation of the lungs is a common cause of death in the aged and in those affected by diatheses, it is likely to be specially fatal in any other condition under which the vital powers are enfeebled. In diabetes, for instance, the lowering of the general vitality renders all the soft tissues exceptionally liable to inflammation, and the same cause operating after inflammation is set up makes that inflammation prone to assume a gangrenous character.

THE MECHANICAL EFFECTS OF NERVE-STRETCHING ON THE SPINAL CORD.—Dr. Dana, in a paper read at the American Neurological Association (*New York Med. Record*, July 29), states that the results of what has hitherto been written on the subject and of his own experimental observations are as follows:—"*a*. As regards the cutting operation: 1. Traction upon the cadaver in the majority of cases, but not in all, stretches the spinal cord. 2. This stretching is greatest at the lower part, amounting to two or three millimetres with a very powerful pull (50 lbs. to 80 lbs). 3. The movement is distributed over the yielding cord, and only in a *minority of cases* does it reach the medulla, which then moves very slightly—less than 0·3 millimetre. 4. When the cord is not moved this is probably due to the unusually tight adhesions of the sheath to the nerve, and of that to the surrounding tissue, especially in the intervertebral canal. 5. Traction on the nerve and sheath, if it reaches the spinal canal, acts chiefly on the dura—that is, the cord is stretched partly by direct force, but chiefly by the movements of the enveloping membranes. *b*. As regards subcutaneous nerve-stretching: 1. On the cadaver this is a powerful means of moving the cord. 2. In the living subject it is as yet doubtful if subcutaneous nerve-stretching affects the cord mechanically at all. Finally I would say that I have confined myself to the studying of the grosser mechanical effects of nerve-stretching. It is very possible that even when traction does not directly and grossly affect the cord there may yet be central effects produced, reflexly or otherwise."

ETIOLOGY OF HÆMORRHAGIC VARIOLA.—At the Rochelle Congress (*Gaz. des Hop.*, September 5) Dr. Petit read a paper on this subject, in which he came to the conclusion that the visceral alterations found at the autopsy of individuals dying of it should really be regarded as the *causes*, rather than the effects, of this form of small-pox. The same may be said of other forms (usually termed malignant) of this and some other affections. It is necessary, however, to distinguish between two forms of the alterations observed, viz., those which are of old date, as degeneration, steatosis, sclerosis, etc., and those of recent origin, as interstitial hæmorrhages. Visceral lesions, whether causes or effects of a morbid condition of the economy, act on variola as they do on traumatic lesions, by imparting modifications to the blood or tissues, and especially the capillaries. Among the subjects predisposed to hæmorrhagic variola may be ranged those who have already suffered from diseases of the liver, spleen, kidneys, heart, and perhaps lungs, or from affections capable of producing serious changes in these viscera, as rheumatism, scarlatina, paludism, alcoholism, pregnancy, etc. Although we may not be able to point to any therapeutical advantage derivable from these etiological conclusions, they may aid our prognosis when individuals, the subjects of these conditions, contract small-pox. Such cases will very probably exhibit the hæmorrhagic form, or even some other still more serious one.

REVIEWS AND NOTICES OF BOOKS.

Lectures on the Pathology and Treatment of Lateral and other Forms of Curvature of the Spine. By WILLIAM ADAMS, F.R.C.S., Surgeon to the Great Northern Hospital, etc. Illustrated. Second Edition. London: J. and A. Churchill. 8vo, pp. 302. 1882.

THE fact that a second edition of Mr. Adams's Lectures on Curvature of the Spine had been long called for and expected, before the author could command sufficient leisure time to enable him to prepare it, shows that the work has been approved of by the profession. This, and the further fact that the second edition of the work contains, we think, little, if anything, new, with the exception of an appendix containing "Some Additional Observations on the Treatment of Lateral Curvature of the Spine by Sayre's Plaster-of-Paris Jacket applied during Suspension," leave but little for the reviewer to notice. Mr. Adams adheres to former opinions as to the pathology and treatment of lateral curvatures. Now, as when his work was first published in 1865, he arranges lateral curvatures in three classes—1. Physiological curves; 2. Commencing structural curves; 3. Confirmed structural curves. And the principles of treatment are, consequently, in his opinion, unaltered. For cases of Class 1 no mechanical treatment by any form of instrument or spinal support should be employed; reliance should be placed entirely upon physiological means, such as gymnastic exercises, partial recumbency, and attention to the general health; by these means actual curvature of the spine is *prevented*." Cases of Class 2, "the only *curable* class of special curvature," are best treated by a combination of mechanical support, gymnastic exercises, and partial recumbency. Cases of Class 3 are to be treated by mechanical support in combination with gymnastic exercises, and partial recumbency during the period of growth, "with the hope of preventing increase, and obtaining some improvement in the curvature during growth." It follows, almost necessarily, that Mr. Adams holds that the plaster-of-Paris jacket is not applicable to any case of lateral curvature. Its immobility is a disadvantage and an inconvenience; its constant application tends to weaken the spinal muscles, and hinders the benefit of gymnastic exercises; and it is an unnecessary restraint at night: moreover, the continued constant use of it interferes with bathing and cleanliness. But Mr. Adams admits that the poroplastic felt jacket is well calculated to act as "a good, efficient, and light retentive support in many cases of incurable spinal curvature in the third class." We must add that Mr. Adams recognises to the full the value of Dr. Sayre's method of treatment in angular or antero-posterior curvature of the spine.

Spasmodic Asthma. A Thesis. By W. E. STEAVENSON, M.B. Second Edition. Cambridge: Deighton, Bell, and Co.; London: George Bell and Sons. 1882. Pp. 31.

THE author of this thesis says: "Having suffered from the complaint myself, its nature, symptoms, and progress have always had a great interest for me, and I have seized every opportunity I have had of watching the disease; but I have never been altogether able to agree with the theories explanatory of the attacks usually given in the works on medicine, and my observation of the disease has borne out my already-formed opinion of its nature."

As to its origin and nature, the author does not think the phenomenon can be explained by congestion of the bronchial tubes, nor that it is inordinate contraction of the smaller bronchi, which produces asthma; but that it is rather a spasmodic contraction of the muscles of inspiration, by which "the movements of the chest appear to be arrested at the conclusion of one of the deepest of inspirations, and spasmodically held in that position."

The real cause or causes which produce asthma have never been satisfactorily made out. That which produces an attack in one asthmatic patient is totally inert in the case of another. But from observations of numerous cases several tolerably constant conditions have been found to exist. In the first place, it is assumed that all cases depend upon an abnormal excitability of the vagus, or of the respiratory centre, but that that excitability is aroused in different individuals by different causes. In some, hereditary influence is the cause, men suffering more often than women. Dr. Steavenson also thinks that a common cause for its excitation may some day be proved to exist in the electrical condition of the atmosphere. This view is treated of at some length. The capriciousness of the disease is of course mentioned, and the more usual exciting causes are given. Of the pathological anatomy very little is said, for in uncomplicated cases "nothing abnormal is found after death."

The symptoms and progress of the disease are next dealt with, while in Part IV. the treatment, both during the intervals and the attacks, is discussed. During the attacks, our author considers morphia as the best remedy. "Sedatives and antispasmodics I should consider the most serviceable drugs, and many of them have been used with beneficial results; but above all in value I should place the hypodermic injection of morphia. This has never failed to relieve an attack in myself, and I have never seen it fail in other patients. The objection to it is, that, if often used, the dose must be increased; but it is better to increase the dose of morphia than suffer the agonies of asthma and allow organic changes in the constitution to take place."

We recommend this thesis to the profession as the work of an able physician, whose opinions are founded on a personal experience of the disease of which he treats.

St. Thomas's Hospital Reports. Vol. XI., for 1881. London: J. and A. Churchill.

WE notice in the volume before us a brief memoir of the late Dr. Peacock, who died of apoplexy in the Hospital itself on May 30; and also a short paper by him (probably the last he ever wrote), on a case of "Disease of the Aortic Valves, probably originating in Malformation." No other writer in our day has done so much to make known the varieties of malformation of the heart, and it seems only natural that his last communication should be on this subject. The case was one of fusion of the right and posterior cusps of the aortic valves, and Dr. Peacock reiterates the opinion, which he expressed many years ago, that this lesion is not the result of any inflammation after birth, but must be due to some change during intra-uterine life. The arguments he brings forward in support of this view seem to us sufficiently conclusive.

Dr. Stone has also contributed a case of congenital heart-disease, with some interesting remarks on the diagnosis of such cases; in this instance there was an imperfect septum ventriculorum, and the conus arteriosus was partially shut off from the rest of the right ventricle by a firm ring with cartilaginous margins—mainly, we presume, the result of the antecedent rheumatism mentioned in the history. The case is also interesting, owing to the fact of a latent abscess in the occipital lobe of the right cerebral hemisphere. Dr. Stone has communicated two other papers in conjunction with Dr. Walter Kilner; one on the use of the continued current in diabetes, the negative pole being placed on the nape of the neck, the positive on the forehead. Out of two patients submitted to this mode of treatment, one of them thought that he derived great benefit from it. Their other paper is on measurement in medical electricity.

Dr. Bristowe gives a short paper on difficulties in the diagnosis of hydatid tumours of the abdomen, based on three cases. In the first the hydatids coexisted with pregnancy; in the second with cancerous disease of the liver, mesenteric and retro-peritoneal glands; in the third a parovarian cyst closely simulated an hydatid cyst.

Of Dr. Ord's two cases of paroxysmal pyrexia, the first was clearly a case of ulcerative endocarditis; the second patient recovered, but the pyrexial attacks coincided exactly with pain over the liver, and were invariably followed by an increased depth of jaundice, so that, although no gall-stones were passed, we cannot help regarding the case as of the nature of hepatic colic.

We are hardly prepared to agree with Dr. John Harley, "that constipation is occasionally the sole cause of enteric fever," but we admit the importance of the cases to which he has called attention. Mr. Nettleship has two papers, both of practical interest—one on some cases of orbital cellulitis, the other on the effects of injury to the optic nerve. Dr. Walter Edmunds makes an interesting contribution to the pathology of double optic neuritis. He found optic neuritis on examining the optic nerves of a child who had

died twenty-four hours after an accident in which she sustained a fracture through the middle fossa of the skull, but not directly involving the optic nerves themselves or either orbit. It should be mentioned that some recent basic meningitis was found at the autopsy. Of the remaining papers, space only permits us to mention one by Dr. Gervis on topical applications to the cervix uteri during pregnancy, and one by Dr. Cory on a case of spondylolisthesis. The volume concludes with the usual reports from the Medical and Surgical Registrars, and from the various special departments; and will compare, we think, favourably in every way with its predecessors.

The Medical Man's Handy-Book. By WILLIAM SHEPPERTON. London: J. and A. Churchill. 1882.

THE first half of the book is devoted to a list of the more commonly used remedies and their respective incompatibles. The author gives also a posological table, a saturation table, a list of the poisons and their antidotes, and a table showing the strengths of some of the more important British Pharmacopœial compounds. He seems to have performed his undertaking with accuracy; and we think his little book calculated to prove useful not merely to the practitioner, but to the student who wants a means of testing his own knowledge before going up for an examination.

Therapeutical Remembrancer. By J. MAYNE, M.D. London: J. and A. Churchill. 1882.

THE author of this little work tells us in his preface that it is intended as a convenient and reliable digest for practitioners. We cannot, however, think that he has quite attained what he aimed at; since, in a brief examination of the work, we have come upon some curiously imperfect notices of important drugs. For instance, under the head of "Bromide of Potassium" we read, "Use in ascites, enlarged spleen, etc." We must confess to having always believed the drug was especially and chiefly useful in epilepsy and some other nervous disorders. Again, we should have expected to find under the heading "Digitalis" some allusion, at least, to its action on the heart. We think too that the author has done but scant justice to Oleum Morrhuæ. Some useful notes are appended on the immediate treatment of cases of poisoning, but we think that more caution should be insisted upon in the use of the stomach-pump in cases of poisoning by the acids and alkalies.

The book is of a very convenient size, and has been interleaved, which doubtless will add to its practical utility.

Étude sur les Déterminations Gastriques de la Fièvre Typhoïde. (*On the Gastric Complications of Typhoid Fever.*) Par le Dr. ANATOLE CHAUFFARD. Paris: Baillière et Fils. 1882. Pp. 108.

THE author arrives at the following conclusions:—1. The stomach may be the seat of a number of inflammatory lesions more or less severe. 2. The great stress of these affections is thrown upon the lymphatic structures normally met with in the tissue beneath the gastric glands. 3. The accumulation of embryonic cells commencing at these points tends to spread both in breadth and depth; it may lead, in places, to the formation of true miliary abscesses, which may open into the cavity of the stomach. 4. Consentaneously, vascular lesions appear—either blood-stasis and thrombosis, or, more frequently, inflammation of the radicles of the lymphatics, of the veins, and of the arteries. 5. The epithelium lining the gastric glands may return to its embryonic state, and take on the cubical form, or undergo granular fatty degeneration. 6. In rare cases true ulcerations may be observed, variable as regards depth and extent. 7. Clinically, these diverse gastric complications are diagnosed by more or less repeated vomiting, pain induced by pressure over the epigastrium, *and in the neck by pressure on the tenth pair; and at times by local elevation of temperature in the epigastric region.* 8. Grave and typical cases of gastric complication are rare enough; less marked forms are more frequent. 9. Gastric symptoms may be so bad as to be a serious business, and to fetter either the nourishment or the treatment of the patient. 10. Persistent anorexia, epigastric pain, distension of stomach, with elevation of temperature of epigastrium, are signs of grave gastric disturbance, and great care must be exercised.

The general tone of the book impresses us favourably. The author seems to be open-minded, looks into the various other avenues which may lead to the same conclusion, and, generally, exercises scientific precaution. The macro- and micro-scopic morbid anatomy is first treated of, and Dr. Chauffard has made use of the method of injections into the stomach, made as soon as possible after death, as recommended by M. Damaschino, the fluids used being alcohol and bichromate of ammonia. The author is fully alive to the possibility of post-mortem changes in the mucous membrane of the stomach, and mentions, what Louis also found, that the corresponding lymphatic glands were frequently affected in those cases where he had observed lesions. Two coloured plates showing the morbid histology are given. The author claims to have discovered a new symptom in the pain produced by pressing the pneumogastric in the neck,—best done, he says, in the lower and front part of the neck, behind the sternal portion of the sterno-cleido-mastoideus. This experiment in our neck elicits pain, but we present no features of enteric fever. A long description of the epigastric pain and tenderness is given, because, according to the author, the characters of this distress have never been fully laid down. The work is very well arranged, and there are many most excellent differences and debatable points. The author takes a very plausible view of the pathology of typhoid fever, in which he has many supporters.

De l'Électricité Statique, et de son Emploi en Thérapeutique. (*Static Electricity in Therapeutics.*) Par le Dr. PAUL VIGOUROUX. Paris: Baillière et Fils. 1882. Pp. 100.

THIS memoir is compiled to advocate the claims of static electricity as a therapeutical agent. The author, believing that it has been sadly denied its proper place, would inculcate ideas of its utility and innocuousness. True, accidents have happened from its use, but these have been due to a want of proper knowledge regarding its administration. Tissues have been damaged and vessels torn, but that has resulted from the use of *condensers*, which ought never to be used. *Condensers* are bad things, and must be clean banished the medical mind and workshop.

A short account of the history of static electricity is followed by a description of the several machines for generating it. The ways and means by which contact is brought about, and the various instruments used, together with the precautions to be adopted, are all thoroughly gone into. The various modes of applying frictional electricity next receive consideration. The author has found that anæmia, migraine, neuralgias, hysteria, rheumatism, locomotor ataxy, epilepsy, hemiplegia, pulmonary phthisis, have all been markedly benefited in some way or other. Women should always be asked whether they are poorly or *enceinte*, and should either state exist, the use of electricity is absolutely forbidden.

We are quite ready to allow that there may be something in static electricity as a mode of treatment. But, both before and after reading this article, we must confess that our state of mind was one of strong scepticism. We know that Charcot has a room splendidly fitted up, where all forms of this mode of motion are in use. Yet, reasons aside, we are inclined to leave the subject alone, and go on for the present dispensing with the aid of this force in medicine.

THE BACILLUS TUBERCULOSUS.—The number of the *Philadelphia Med. News* for August 12 contains a very interesting communication from its Berlin correspondent, giving the minute details of Dr. Koch's processes of "culture" of the bacillus in the gelatine and blood-serum preparation; and of the colour-tests employed in its recognition. The paper is too long for transcription, and any analysis would leave many important points unnoticed.

SALICYLIC ACID IN TYPHOID FEVER.—In a communication to the Académie de Médecine, Prof. Vulpian related numerous trials he had made with this substance, and arrives at the conclusion that without being a truly curative agent in typhoid fever, salicylic acid really exerts on this disease a moderating action (given in doses of six grammes per diem) sufficiently powerful to fit it to take place among the best means for the treatment of the disease. He suggests, also, that during the prevalence of a typhoid epidemic it might be given in small doses as a prophylactic.—*Union Méd.*, August 24.

GENERAL CORRESPONDENCE.

"A HALF-FORGOTTEN HYMN."

[To the Editor of the Medical Times and Gazette.]

SIR,—In Dr. Oliver Wendell Holmes's delightful lecture, reported in to-day's *Medical Times and Gazette*, there is a quotation from what the lecturer calls "an old hymn which I only half remember." Doubtless by this time he has discovered the other half of the couplet. The lines run thus—

"Who know what's right, not only so,
But also practise what they know."

September 16. I am, &c., J. D.

OLIVER WENDELL HOLMES ON HOMŒOPATHY.

LETTER FROM DR. J. H. CLARKE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your readers are much indebted to you for reproducing the bright, if also somewhat light, address of Professor O. W. Holmes. It makes a very pleasant variation in the midst of the more solid but more prosaic fare we usually expect to find in a medical journal. Oliver Wendell Holmes has put the world of letters, and of medicine, under a great debt of gratitude to himself, and we are always glad to listen when he chooses to speak, however much we may disagree with what he has to say. For this reason it is very hard to be ill-natured when dealing with Oliver Wendell Holmes, and happily on this occasion it is quite unnecessary. In letters, in anatomy, in physiology, he is a recognised authority. In the theory and practice of medicine he is not an authority, and what imp of mischief put it into his head to speak as if he were one, I cannot divine. In matters relating to homœopathy it is abundantly plain he is—not an ignoramus by any means, but something a great deal worse: he is a hopeless subject of cerebral strabismus—beyond all medical, all surgical treatment. It is to point this out to those of your readers who may not be aware of it, that I ask you to insert this letter, to put them on their guard.

It is somewhat odd that the author of the address should devote nearly one-half of it to dealing blows at homœopathy, seeing that many years ago he gravely pronounced it dead, and delivered a touching funeral oration over its grave. It must be confessed that it is an uncommonly lively and vigorous corpse, if students need warning against it still. How he came to deem it necessary still further to pummel the long-since-defunct I will not attempt to explain, not having his genius for explaining motives and rummaging out the seeds of ideas. It is sometimes difficult enough to explain one's own motives, and trace out the sources from which our ideas have sprung, and when any competent person will undertake to do it for us we ought to be greatly obliged. I have no doubt, were Hahnemann still alive, he would not be slow to acknowledge his debt to Professor Holmes for performing this kind office for him. Hahnemann's followers are willing to own the great amusement afforded them by the (self-)satisfying success that has attended the praiseworthy researches of the man of letters through dusty tomes in this quest. How far he is correct in his conclusions on this point, I will not presume to say, as the subject is quite beyond me, and has nothing whatever to do with the worth, or otherwise, of the ideas themselves.

The Professor states very fairly the doctrine of *similia similibus curantur*—the doctrine on which all homœopathists are agreed, however widely they may, and do, differ in other matters. But when he proceeds to dispose of that doctrine by appealing to the authority of a writer in the "Encyclopædia Britannica," an avowed opponent, who again quotes for his authority an isolated statement in an obscure medical journal, it is plain how much his arguments are worth on this head—not worth taking up any of your space to refute. And when he quotes a letter of Dr. Wyld, who was once one of the annually-elected Vice-Presidents of the British Homœopathic Society, as if he represented the whole of British homœopathy, to show that the use of small doses has been given up, he is on no firmer ground. Whilst Murrell can give one-tenth-of-a-drop doses of tincture of *drosera* (not unusually considered a very dangerous poison), and Ringer one-twentieth of a grain of such a comparatively "inert" substance as sulphide of calcium, it is too late to talk of the day of small doses being past.

As regards the *Psora* theory I will just say one word. Hahnemann knew better than most of his contemporaries that itch was due to the presence of a parasite, for he wrote on the subject, showing such to be the fact, in his earlier years. He may have overlooked this later, but under the term psora he included not only scabies, but all scabies-like eruptions which were non-parasitic. With him psora, in its wide sense, meant pretty much what we mean by "scrofulous diathesis," and the French by their "herpetic diathesis." It seemed to Hahneman that the most constant feature of the morbid condition was an itch-like eruption, and hence the name he gave it.

"It seems to be forgotten," says our Professor, "that the materia medica has long recognised a class of remedies under the name of *alterants* or *alteratives*," under which class homœopathic remedies—if there were any—would come. True, under that head all remedies, of whatever kind, must come, for they cannot be remedies if they cannot *alter* a morbid state. But because we have got a useful word *mammalia*, under which we class a large section of the animal world, that is scarcely a sufficient reason for doing away with the useful specific terms "elephas" and "mus." Hahnemann found alteratives by the score, only he wanted to know *what* alterative would alter *what* condition, and this his books and teachers could not tell him. He found, as his followers believe, the key to the mystery, and showed which alterative is the proper one to select for any given depraved condition which it is considered desirable to alter. Does the Professor propose that we should dub them all *alteratives* again, any one of which may be relied on to alter any condition in the desirable way? Very simple, truly, but hardly likely to be attended with brilliant success, and scarcely in keeping with the aims and dictates of science.

"If any single remedy brought forward by homœopathy had proved trustworthy and efficacious, it would have been thankfully accepted by the medical profession, etc." These words prove the author's ignorance at once of the practice of medicine and the profession he adorns. "*If* any remedy"! Why, if you cut out of the text-books of Phillips, Ringer, and Bartholow the therapeutic matter they owe to Hahnemann directly, or to him through the workers in his school, the books would not sell, they would be so much waste-paper. And then, the "thankfulness" is not very easy to find. The profession has not been slow to adopt the remedies, when it could do so without much trouble; but the gratitude has yet to be manifested.

A short time back I had in my hands a little book sent out by a leading London firm of chemists, advertising certain new remedies prepared according to the recommendation of Dr. Phillips. These "new" remedies are all very *old* friends of the homœopathists—older than Dr. Phillips, many of them old as Hahnemann. Among other drugs certified by the same authority was a tincture of *Rhus toxicodendron*, recommended as a sedative in eczema! Dr. Phillips can do this boldly, for very few of his readers will know as well as he does that the juice of that plant is one of the most violent skin-irritants known, as any of the readers of this may speedily prove by applying a little to their own skins. To a homœopath the audacity of calling rhus a *sedative* is beyond the power to characterise. But if Dr. Phillips can do this boldly, with comparative safety, caution is sometimes necessary; and when Dr. Ringer, lecturing on acute nephritis, wishes to recommend *cantharis*(!) in fractional-drop doses as a valuable remedy, he must timidly slip it in at the end of his lecture, after advising his hearers to bother their patients and themselves with other measures of comparatively trivial importance before resorting to cantharis in suitable dose. But then, though few know the properties of rhus, all the world knows that nothing will produce nephritis so surely as cantharis, and the dullest of students could not help smelling heresy here, and surmising that this is what homœopaths call homœopathy.

"If a drug is proved to be a remedy for any disease or symptom, it is no objection to it that it is capable of producing similar symptoms in a healthy person." Surely, then, Professor Holmes can have little confidence in the manliness of the students of Harvard if he advises them to rely on his *ipse dixit*, to stick close to the apron-strings of

Alma Mater, and not trust rather to their own reasoning faculties as well. It would have argued better of his good opinion of them if he had advised them not to rest content with classing any remedy that might be found to cause the condition it could cure as an *alterant*, but to search out for themselves how many remedies do this, and to prove by their observations how much reliance is to be placed on the rule that many find the only guide to anything worthy of the name of rational therapeutics.

I am, &c., JOHN H. CLARKE, M.D.

15, St. George's-terrace, S.W., September 18.

OBITUARY.

SIR JAMES ALDERSON, M.D. Oxon., F.R.C.P. Lond., D.C.L., F.R.S.

We regret to record that one of the oldest and most respected of metropolitan physicians, Sir James Alderson, died at his residence in Berkeley-square, on Wednesday, the 13th inst., aged eighty-seven. Sir James was the son of Dr. John Alderson, of Hull. He went to Cambridge University, where he entered Pembroke College, graduated as B.A. in 1822, passing out in the Mathematical Tripos as Sixth Wrangler, and in due course proceeding to the M.A. degree. He afterwards became a Fellow of his College, and later was incorporated at Magdalen Hall, Oxford, in which University he graduated as M.D. in 1829. In 1830 he was elected a Fellow of the Royal College of Physicians of London, and served the College well and faithfully in many ways and offices, including the highest of all offices, that of President. He was Senior Censor in 1848 and 1856, Lumleian Lecturer in 1852-53, Harveian Orator in 1854 and 1867, Treasurer from 1854 to 1867, and was elected representative of the College on the General Medical Council in 1864, but resigned the office in 1867 to become President of the College, to which dignity he was re-elected in the three following years. On the opening of St. Mary's Hospital, Dr. Alderson was elected Senior Physician, and held the office for twenty years. He was Consulting Physician to the Hospital up to the time of his death. Sir James was Physician-Extraordinary to the Queen, and in 1869 received the honour of knighthood. He did not add largely to the literatnre of the profession, but in 1825 he contributed to the *Quarterly Journal of the Royal Institution* a paper on the "Motion of the Heart," and some papers to the *Medico-Chirurgical Transactions*. He was author of "Practical Observations on some of the Diseases of the Stomach and Alimentary Canal," published in 1847, and he delivered the Lumleian Lectures in 1852 and 1853. He was a man of highly cultivated mind, was ever very courteous, though dignified, and was jealous of the honour, dignity, and reputation of the profession.

MILK-POWDER IN GASTRIC AFFECTIONS.—Dr. Debove, in a communication to the Paris Hospital Medical Society (*Gaz. Hebdomadaire*, August 25), observes that the milk regimen, which is so indispensable in affections of the stomach, and especially simple ulcer, speedily becomes so disgusting to these patients that it has to be left off. This serious inconvenience, however, may be remedied by the employment of the œsophageal tube, now used for feeding phthisical patients. But by this only a litre of milk can be introduced at a time, so that it would require to be employed six times in order to introduce the six litres, which is the mean quantity required for the subjects of *ulcus rotundum*. To avoid this frequent introduction of the tube, Dr. Debove has had skimmed milk evaporated (cream being but slightly digestible), and the residue reduced to a fine powder. If this be dissolved in warm hot milk, two or three litres of milk may be injected in the same volume as a single litre. It is possible that this milk-powder, which furnishes excellent results in gastric affections, may also prove very useful in Bright's disease, cardiac affections, and all cases in which a milk regimen is employed. About a litre of pure milk is represented by 120 grammes of the powder.—Dr. Dujardin-Beaumetz observed that in feeding the subjects of phthisis with the tube he has obtained excellent results from a mixture of powder of meat, powder of blood, and powder of milk. As powder of blood is not very digestible, he only adds a small proportion of that as a ferruginous principle.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 14:—

Blaikie, William, Oswestry.
Muddle, Edward John, Queen's-road, Dalston.
Parry-Jones, William Richard, Rhos, Ruabon.
Pryce, Thomas Davis, Newtown, Montgomeryshire.
Willett, George Gilman Drake, Bristol.

BIRTHS.

ANDERSON.—On July 26, at Mhow, Central India, the wife of Surgeon-Major A. Anderson, A.M.D., of a daughter.

EDWARDS.—On September 6, at Stanley House, Bath-road, Hounslow, the wife of W. Whitfield Edwards, M.D., of a son.

SAUL.—On September 13, the wife of W. Wingate Saul, M.D., of a daughter.

THURSTAN.—On September 13, at Tunbridge Wells, the wife of E. Paget Thurstan, M.D., B.A. Cantab, of a son.

MARRIAGES.

BRANFOOT—OGG.—On August 16, at Coonoor, Neilgherry Hills, Arthur Mudge Branfoot, M.B., of Madras, to Alice Stewart, daughter of G. Stewart Watson Ogg, M.B., M.A., Deputy Surgeon-General, of Secunderabad.

BUCHANAN—BINGHAM.—On September 14, at Westbourne-park, Arthur Buchanan, M.D. Lond., of High-street, Chatham, to Constance Eliza Maud, daughter of the late John Bingham, Esq.

COLLIER—PRICE.—On September 12, at Newton Abbot, Nicholas Constantine Collier, L.R.C.P., of London, to Mary Elizabeth, daughter of R. C. Price, Esq., of Park House, Newton Abbot.

EDWARDS—BARNETT.—On August 24, at Leominster, Octavius Edwards, L.R.C.P., M.R.C.S., of South-street, Leominster, to Laura, daughter of Samuel Barnett, J.P., M.R.C.S., of The Brook House, Leominster.

MORRIS—SHIELL.—On September 14, at Chester-le-Street, Durham, Walter Cameron Morris, M.B., of Chester-le-Street, to Florence Maud, second daughter of the late W. R. Shiell, M.R.C.S.

ROBERTS THOMSON—HULL.—On September 14, at Hazelwood, John Roberts-Thomson, M.D., F.R.C.P., of Dunedin, Bournemouth, to Mary Frances Rowe, daughter of the late William Winstanley Hull, Esq., of The Knowle, Hazelwood, Derbyshire.

STROOALL—GILES.—On September 13, at Camberwell New-road, Henry William Francis, second son of J. W. B. Steggall, M.R.C.S., L.S.A., of 3, Queen-square, Bloomsbury, to Harriette Henrietta Jessie, eldest daughter of Oscar John Jennings Giles, Esq., of 25, St. Paul's-road, Kennington.

DEATHS.

ALDERSON, Sir JAMES, M.A., M.D., F.R.S., Physician Extraordinary to the Queen, and formerly President of the Royal College of Physicians, at 17, Berkeley-square, on September 13, aged 87.

CAREY, LANGER, M.D., late Surgeon-Major R.A., and 101st Fusiliers, at Wellington, New Zealand, on May 25.

COX, WILLIAM ABRAHAM, M.R.C.S., late of Bath, at Blaby, Leicestershire, on September 13, aged 70.

HARRIS, Surgeon-Major WORSLEY POULETT, M.D., at 10, The Avenue, Backheath, on September 16, aged 51.

LEWIS, WALLER AUGUSTUS, M.D., Chief Medical Officer of H.M. Post Office, 2, Gordon-square, London, at Whitby, Yorkshire, on September 8.

PEACOCK, LUCY JEMIMA, wife of Henry Peacock, Surgeon R.N. (retired), M.R.C.P., F.R.C.S., at Gloucester, on September 14.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CARMARTHEN JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, and washing. Applications, with testimonials, to be sent to the Medical Superintendent, on or before September 30.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Demonstrator of Practical Physiology. (*For particulars see Advertisement.*)

ST. GEORGE, HANOVER-SQUARE, PROVIDENT DISPENSARY, MOUNT-STREET.—Resident Medical Officer. The salary last year £214 4s. 3d. Candidates must be doubly qualified, duly registered under the Medical Act, about thirty years of age, and unmarried. Applications, with testimonials and references, to be sent to G. W. Leah, jun., 73, Park-street, W. (from whom all further information can be obtained), not later than September 30.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

HAMPSTEAD PROVIDENT DISPENSARY, NEW END.—Medical Officer. Candidates must be legally entitled to practise both medicine and surgery by being registered under the Medical Acts. The selected candidate must reside in the neighbourhood of Hampstead. Applications, with evidence of qualification, to be sent to the Secretary, 23, High-street, Hampstead, on or before September 23.

MIDDLESEX COUNTY LUNATIC ASYLUM, COLNEY HATCH.—Assistant Medical Officer. (*For particulars see Advertisement.*)

NORTHAMPTON GENERAL INFIRMARY.—Physician. (*For particulars see Advertisement.*)

NORTHMAVINE AND DELTING PARISHES, SHETLAND.—Medical Officer. Salary £60 per annum. Practice extensive. Applications and testimonials to be sent to Thomas M. Adie, Esq., Voe, Shetland, on or before September 30.

RADCLIFFE INFIRMARY, OXFORD.—Resident Medical Officer. Salary £100 per annum, with board, lodging and washing. Candidates must have both medical and surgical qualifications, and be registered under the Medical Act. They must not be more than twenty-seven years of age, unmarried, and members of the Church of England. Applications to be made on a printed form to be had of the Secretary, from whom all further information may be obtained. Testimonials to be sent in by September 30.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Ashton-under-Lyne Union.—Mr. Slater has resigned the First District: salary £25 per annum.

Tiverton Union.—Mr. William Gribble has resigned the Cullompton District: area 7370; population 2938; salary £43 per annum.

Winchcombe Union.—The Vale District is vacant by the death of Mr. Thomas Newman: area 20,586; population 3859; salary £65 per annum.

APPOINTMENTS.

Great Ouseburn Union.—George E. Vivian, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Tollerton District.

Rugby Union.—John B. Unwin, L.R.C.P. Edin., L.R.C.S. Edin., to the Dunchurch District and the Workhouse.

Pickering Union.—Donald W. Robertson, M.R.C.S. Eng., L.R.C.P. Edin., to the Pickering District and the Workhouse.

PRESENTATION.—Mr. Harper, L.R.C.P.L., M.R.C.S. Eng., J.P., Mayor of Barnstaple, has received during his term of office two testimonials. On June 24 of this year he was presented by his many friends and patients with a silver dinner set of the value of £120; and on Wednesday, September 13, the Town Council of Barnstaple presented him with a handsome silver salver of the value of £50, in commemoration of the birth of a daughter during his mayoralty.

PAYMENT OF MEDICAL AND LEGAL SERVICES CONTRASTED.—In view of the opposition to the moderate compensation proposed to be awarded to the physicians of the late President Garfield (for it should be remembered that no bills have ever been presented to Congress), we desire to call attention to the fees paid by the Government to the lawyers in the "Lewis Will Case." The amount bequeathed to the Government by Mr. Lewis towards the payment of the national debt was about $1,500,000. His natural heirs contested the will. Four extra lawyers were engaged as counsel for the United States, and they *compromised* the suit at about $1,000,000, and then sent in bills amounting to $105,250! The Court cut them down to an aggregate of $72,000, and this sum has just been paid without raising a murmur in Congress, where there is evidently no difficulty in appreciating the value of legal services, even when the Government does not gain the suit. We commend to members of Congress a comparison of the time, labour, skill, and responsibility involved in contesting the Lewis will suit and in attending President Garfield through his long illness, with the sum actually paid by the Government for professional services in the former case and proposed to be paid in the latter.—*Phil. Med. News*, August 19.

THE LIEBIG FOOD COMPANY.—The establishment for the manufacture of food, belonging to the Liebig Food Company at Fray-Bentos, Uruguay, last year killed the enormous number of 170,000 cows and bulls. The riches of the Republic of Uruguay in all kinds of cattle are truly extraordinary, relatively to its territorial extent and population. In 1881 it possessed 6,791,788 head of oxen, 10,536,042 head of sheep, and 900,000 horses. These figures correspond to 14 oxen and 22 sheep per inhabitant. The territory inhabited by the *estansias* (properties devoted to pasturage or agriculture) measures 14,000,000 hectares.—*Lyon Méd.*, September 10.

SOAP-PAPER.—Dr. Addinel Hewson laid before the Pennsylvania Medical Society some specimens of paper which had been saturated with a solution of soap and dried. Pieces of about the size of a visiting-card contain enough soap for shaving or washing the hands. The superior cleanliness of this method of using soap (especially in hospitals, hotels, etc.) is evident, and its inventor insists that it saves soap. For preparing the paper, a strong watery solution of English glycerine soap is used, in which the paper is immersed. After drying, it is cut into small pieces of suitable size, and disposed of in a package or box.—*Phil. Med. Times*, July 15.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 16, 1882.

BIRTHS.

Births of Boys, 1248; Girls, 1182; Total, 2430.
Corrected weekly average in the 10 years 1872-81, 2513·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	634	635	1269
Weekly average of the ten years 1872-81, corrected to increased population ...	711·5	661·2	1372·7
Deaths of people aged 80 and upwards	...	...	55

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, (uncorrected).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	5	3	3	5	...	2	...	12
North ...	905847	2	4	9	5	16	...	4	...	21
Central ...	282238	...	3	1	4	3	...	2	...	6
East	692738	...	2	10	4	3	...	5	1	12
South	1265927	1	3	6	7	11	...	4	...	27
Total	3816483	3	17	29	23	38	...	17	1	78

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·587 in.
Mean temperature	51·3°
Highest point of thermometer	69·4°
Lowest point of thermometer	35·7°
Mean dew-point temperature	48·1°
General direction of wind	Variable.
Whole amount of rain in the week	0·46 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 16, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Sept. 16.	Deaths Registered during the week ending Sept. 16.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2430	1269	17·0	69·4	36·7	51·3	10·73	0·46	1·17
Brighton	109595	58	35	16·7	71·0	40·4	52·6	11·45	0·75	1·90
Portsmouth ...	129916	79	39	15·7	...	...	...	...	...	...
Norwich	88821	56	34	20·0	...	...	...	...	...	...
Plymouth	74449	40	26	18·2	65·1	37·8	50·5	10·28	0·61	1·55
Bristol	210134	137	68	16·9	63·8	37·0	49·7	9·83	0·08	0·20
Wolverhampton .	76756	62	29	19·7	63·3	36·5	48·3	9·06	0·22	0·55
Birmingham ...	408532	256	147	18·8	...	...	...	...	...	...
Leicester	126275	102	65	26·9	...	...	...	...	...	...
Nottingham ...	103573	151	86	23·2	66·3	33·5	50·1	10·06	0·18	0·46
Derby	83587	47	24	15·0	...	...	...	...	...	...
Birkenhead ...	86582	69	21	12·7	...	...	...	...	...	...
Liverpool	580377	423	282	26·9	64·5	41·5	51·5	10·84	0·35	0·89
Bolton	106787	65	39	19·1	63·9	38·0	49·1	9·50	0·14	0·36
Manchester ...	340211	253	164	25·2	...	...	...	...	...	...
Salford	184244	145	89	25·2	...	...	...	...	...	...
Oldham	115572	92	59	28·6	...	...	...	...	...	...
Blackburn	106460	96	58	28·4	...	...	...	...	...	...
Preston	97656	113	40	26·2	...	...	...	...	...	...
Huddersfield ...	83418	47	35	21·9	...	...	...	...	...	...
Halifax	74713	34	25	17·5	...	...	...	...	...	...
Bradford	200158	122	74	19·3	65·5	38·1	50·6	10·34	0·19	0·48
Leeds	345098	213	151	24·9	67·0	38·3	51·1	10·62	0·14	0·35
Sheffield	290516	204	113	20·3	67·0	35·0	50·3	10·17	0·06	0·15
Hull	158814	115	87	28·6	72·0	31·0	50·4	10·22	0·34	0·86
Sunderland ...	119055	92	87	38·1	72·4	41·0	54·2	12·33	0·62	1·57
Newcastle	147626	87	62	21·9	...	...	...	...	...	...
Cardiff	58724	50	25	15·0	...	...	...	...	...	...
For 28 towns ...	8468571	5648	3249	20·0	72·0	31·0	50·7	10·39	0·32	0·81
Edinburgh	232440	117	80	18·0	...	...	...	...	...	...
Glasgow	514048	337	226	22·9	61·0	35·0	52·0	11·11	0·55	1·40
Dublin	348203	198	172	25·8	64·4	34·0	49·8	9·89	0·38	1·98

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The highest reading was 30·03 in. at the beginning of the week, and the lowest 29·43 in. at noon on Thursday.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Newton Mudgee, New South Wales.—Letter and enclosure received.

Dr. Young, Hong-kong, China.—Letter and enclosure received.

Mr. Howard,—It is not an unusual circumstance, as you suppose, for a President of the College to deliver the Hunterian Oration, as Mr. Spencer Wells will do next February. Sir William Fergusson, Mr. Hancock, and Mr. Clark delivered it when they were Presidents.

Scientific Cheese-making.—M. E. Duclaux, a French chemist, has made some interesting experiments in cheese-making, with a view, mainly, to discover the causes which determine the flavour of cheeses. These researches tend to prove that neither climate, soil, food, manipulation, nor variety in the breed of cows, largely affects the quality of the cheese. It would appear rather that a fungus, allied in some cases to a yeast, in others to mould, is communicated by germs in the atmosphere to the cheese, and this it is which gives it its distinguishing flavour. Already people look forward to the time when the farmer will be enabled to inoculate his cheeses with a variety of ferments, so as to produce Cheddar, Stilton, Parmesan, or Gruyère at will.

Mr. John Leonard, Exeter.—The lines are not quite correct as given by your friend. You will find them in Butler's "Hudibras," as follows:—

> "From whence the learned sons of art
> Os sacrum justly called the part."

Alma Mater.—So long ago as April 3, 1852, we drew attention, in a leading article by the late Dr. Wynter, to the sale of John Hunter's chairs by the Council of the Royal College of Surgeons. We doubt very much whether any member of the present Council would sanction a like proceeding. After our strictures they rapidly went off, and now, "Alma Mater" will be sorry to learn, not one is to be obtained. By the kindness of an old correspondent to whom we referred your note, we find that Mr Wormald of St. Bartholomew's Hospital, Mr. Spencer Smith of St. Mary's Hospital, and Mr. Stone of the College of Surgeons, each purchased two. Dr. Acland, of Oxford, was obliged to purchase two in order to make one complete chair; Professor Goodsir, of Edinburgh, also purchased one. About the same time several small cabinets of Hunter's were sold. Mr. Kiernan and Mr. Stone each purchased two. Those obtained by Mr. Kiernan have since been returned to Professor Flower, the Conservator of Hunter's Museum, to his great delight; and in the office of the latter gentleman a "library ladder," made, it is said, by Hunter, can be seen, as also his "secretaire." The unknown wood of which the chairs were made was discovered and brought to England by the great circumnavigator Captain Cook, and by him presented to Hunter.

Mr. Harrison.—It is a new appointment. Mr. Frederick Samuel Eve, F.R.C.S., is the "Pathological Curator and Erasmus Wilson Lecturer" in the Museum of the Royal College of Surgeons. Owing to the extensive repairs, etc., of the Museum, we cannot say when it will be reopened.

The Healthiest City in Europe.—At the Hygienic Congress at Geneva, attention has been called to the fact that that pleasant city is the healthiest in Europe. The bills of mortality show the death-rate to be 17 per 1000 inhabitants, against 18 in Edinburgh, which comes next among the cities of Europe. In Paris the rate is 21 per 1000, and in Berlin 35, while in St. Petersburg it is no less than 47.

Emigration from Liverpool.—The official returns for the month of August show that a total of 20,564 emigrants sailed from this port in the course of the month. Of this total no fewer than 13,453 were English.

An Inquest in Pennsylvania.—In a recent drowning case in Pennsylvania, the jury solemnly brought in the following verdict:—"Elmira Showers came to her death by being there alone, in a creek called Cocalico Creek, herself voluntarily and feloniously drowned; and so the jurors aforesaid, upon their oaths aforesaid, say that the aforesaid Elmira Showers, in manner and form aforesaid, then and there herself voluntarily and feloniously, as a felon of herself, killed and murdered, against the peace and dignity of the commonwealth of Pennsylvania."

W. C. P., Clapton.—Dr. J. W. Tripe, the Medical Officer of Health, has instituted an investigation into the complaint of the pollution of the river Lea with sewage, and has forwarded the information thus obtained to the Clerk to the Lea Conservancy Board and to the Home Secretary.

A New Anti-Scorbutic.—"Amchur" is being introduced among our native soldiers in India, and promises, it is said, to be an excellent substitute for lime-juice, to which it is greatly preferred by the men, who have long used a similar compound as a condiment. Dr. Clarke, Deputy Surgeon-General on the Eastern Frontier District, reports that amchur not only maintains the digestive energy of the men, but that its use among troops where neither a variety of food nor vegetables are obtainable, commends itself strongly as a result of practical experience to the military authorities. It is made from green mangoes, which are skinned, stoned, cut into pieces, and dried in the sun. One ration should be half an ounce, which would be an equivalent for an ounce of good lime-juice.

The Notification of Infectious Diseases.—Yes; Mr. C. W. Hastings, M.P., intends to reintroduce his Bill for this purpose in the next session.

Sanitation, Hong-kong.—A correspondent writes:—"The water-supply is insufficient, and the sanitation of the town is utterly unsatisfactory. These are thorny questions, still *sub judice*, which it is perhaps premature for a critic to meddle with. Were the population European, the problem would be comparatively simple; but to force sanitation on a mass of 150,000 Chinese, whose inherited instincts are all anti-sanitary, is no easy matter."

The Decline in the Use of Intoxicating Liquors.—The great diminution in the consumption of wine and spirits among all classes is a fact attested by the steady decrease of the Revenue from those sources, which but a few years ago was attaining an amount of surprising magnitude. The untiring efforts of zealous advocates, and the activity of the various temperance organisations, are obviously producing satisfactory results. Of the many influences at work in the promotion of the good cause, it may be mentioned that of late years, in the majority of the colleges at Oxford, measures have been taken to encourage temperance habits within their own bodies. This has led to temperance societies being formed in the different colleges, and the originators of the scheme have organised weekly entertainments in the course of the movement, which, it is said, have both directly and indirectly raised the morality of the borough. It is noteworthy for its significance, that public-house property, both in the metropolis and the provinces, is much depreciating in value: as an instance, out of ten London taverns submitted for public sale lately, the value of each being estimated at from £5000 to £8000, only one was sold, the biddings in all the other cases having fallen considerably short of the reserve price.

Pictures for the Sick.—The Visiting Committee of the Highgate Infirmary reported to the Guardians of the Holborn Union that they had considered the offer of Lady Brabazon to supply oleographs for the sick wards at the Infirmary, and while thanking her ladyship for the offer, they could not recommend its acceptance, as driving the nails into the walls would spoil the colouring, whilst the pictures would militate against the effectual keeping down of vermin. A little care in dusting, etc., might, one would think, have met this latter and chief objection.

London Hospital.—The Governors have taken premises to provide suitable accommodation for probationary nurses who are willing to pay for their training. The step has been taken to supply the deficiency which has existed in the nursing staff of the institution.

Inquirer.—1. So far as we have seen, at many of the Brewster Sessions lately held, the police have expressed themselves very hopefully regarding the effects of the working of the new Act, which gives to magistrates a discretionary power not previously held in the granting of "off licences." 2. In spite of all the restrictive measures passed in many of the States, it is the opinion of American experts that, so far, at least, as whisky is concerned, the demand for it has increased, and is increasing. Its consumption is stated to be, in the United States, about seventy million gallons per annum. There are 947 distillers, 1402 rectifiers, and 3808 wholesale liquor dealers. The quantity of whisky in bond in May, 1882, was nearly ninety million gallons.

Scots.—The Town Council of Glasgow have increased the salary of Dr. Russell, who has been Medical Officer of Health for the city for seventeen years past, from £700 to £800 a year.

Effects of Tobacco-Smoking.—Dr. Troitzky, from experiments to ascertain the influence of tobacco-smoking on temperature and pulse, after 600 observations on twenty-five persons grouped in three categories according to constitution, found the main result was that tobacco-smoking has a more marked influence on the pulse than on the temperature. Taking all the classes of persons together, the mean temperature on smoking as against non-smoking days showed an increase in the ratio, 1008 : 1000—while the ratio for the pulse was 1150 : 1000.

An Appalling Fact.—An evening paper states that in the metropolis nearly a thousand infants under one year of age are annually suffocated either by the carelessness or neglect of their parents. Dr. Danford Thomas, the Coroner, states the number of suffocated infants in the Central Middlesex District alone as upwards of two hundred a year on which he has held inquests.

Officials' Salaries, Glasgow.—At the last meeting of the Town Council, the Committee unanimously agreed to recommend that the salary of Dr. Russell, the medical officer, be increased from £700 to £850 per annum, to continue at said increased rate during the pleasure of the magistrates and Council. The proposal, it was announced, would lie on the table till next meeting, whereupon notice was given of the following amendment to the proposed increase of Dr. Russell's salary:—"That no advance of salary to any of our highly paid officials can meet with the approval of the Council until a very substantial reduction be made upon the heavy taxation of the ratepayers; and that in considering advances the lowest-paid *employés* of this department ought to have the first preference, seeing they were the first and only servants of the city who were made to suffer a reduction when that was considered necessary during the late depression of trade." A member hereupon gave notice that when the question came up he would move that Dr. Allan's salary be increased.

Patrick.—The lately issued annual Report of the Belfast Queen's College shows that the aggregate number of students during the past session was much greater than in any previous year. The number of medical students was 364.

A Memorial Ward.—A new children's ward which will accommodate sixteen patients has just been opened at the West Kent General Hospital at Maid-tone. The ward has been erected to the memory of a Maidstone working-man, Jonathan Saunders, now deceased, who during his life spent his leisure hours in advocating the cause of this and other hospitals. A working-man's subscription towards the cost (£270) amounted to upwards of £350.

Sanitary Works and Improvements.—Waterworks are about to be constructed for the supply of Gatehouse, N.B.—The Corporation of Carnarvon have acquired Parliamentary powers for the conversion of the Morfa into a park, Lord Newbury, Mr. Assheton Smith, and others interested having relinquished their rights.—The Burnley Town Council propose to extend the *abattoirs* in that town at an expense of £1000.—Plans for the extension of the Kidderminster Workhouse have been submitted to the Board of Guardians, and are under consideration.—A scheme for the sewerage of the town of Paulton, and the districts of Ereché and Little Paulton, near Blackpool, has been decided upon—The Dorking Local Board are about to carry out a system of sewerage of the town.—Large storage tanks are to be constructed for the Stockton and Middlesborough Water Board.—At Ardsley a reservoir is being erected to increase the water-supply at Wakefield at an estimated cost of £40,000, and the capacity will be 325,000,000 gallons.—Borings at Melton Mowbray, with a view of increasing the water-supply, which have been in progress for some time, have not up to the present time been successful. A depth of 150 feet has been reached.—The district of Brentford is about to be properly sewered.—The Warrington Board of Guardians have adopted plans for public laundries, wash-houses, *etc.*—The sewering of the town of High Wycombe is now in progress. The estimated cost is £17,772 2s. 10d.—A public inquiry into the alleged pollution of the river Derwent at Buxton by sewage is being held at Buxton.—The Portsmouth Town Council are about to erect public baths.—Works and buildings are about to be erected in Birmingham for dealing with the refuse of the borough at an estimated cost of £28,200.—The water-supply of Hawarden is being inquired into by the Local Government Board. There are no less than sixty-two houses in the village without any supply at all. A comprehensive scheme for supplying water is about to be considered by the Hawarden Board of Guardians.

Philanthropic.—A cottage has been opened on the borders of Epping Forest for the purpose of giving a few days' rest and change of air to many worn-out and tired young women and girls employed in the London workrooms. The rent of the cottage has been guaranteed, but funds are required for furnishing and for the expenses of the home. A donation of one guinea will give four young women a week's stay at the home. Contributions of second-hand furniture will be received by Miss Kate Reynolds, New-road, Buckhurst Hill.

Official Brutality.—It is reported that not long ago, in a small southern English town, the local coroner hastily summoned a jury to enable him to hold an inquest on a deceased person. One of the jurors thus summoned happened to be a farmer, and he came straight from his work without delaying even to attire himself in his coat. He came, in fact, from the field, just as he had been toiling in the sun, in his shirt-sleeves. But the "coroner" was exceedingly wroth, and informed the trembling agriculturist that he had rendered himself liable to be heavily fined, and to be committed for contempt of court. The farmer, as was right, apologised, adding timorously, that he had merely left his coat off in consequence of the intense heat. In the late weather there has been alas! no possibility of the repetition of such an offence.

Small-pox, Capetown.—By the last advices the small-pox epidemic continues to gain ground in Capetown and the vicinity. Between the 16th and 21st ult. thirty-four fresh cases were officially reported. The mortality also is great. At the outset the disease was of a mild type, but it has now assumed a more virulent form.

The Efficacy of Vaccination.—A lay contemporary says that some three or four weeks ago a poor woman, near her confinement, was sent by one of the relieving officers of the City of London Union Workhouse to the Bow Infirmary, she being evidently very ill. Upon examination it was found impossible to say what was really the matter, though it seemed most probable she was sickening with some febrile complaint. As a measure of precaution, she was vaccinated, but in a few days small-pox of a very modified type developed itself, for which she was treated with success. As soon as practicable after her infant was born, it also was vaccinated, and, though lying in its mother's infected arms, was perfectly protected, and resisted the contagion of the disease. The case was strictly watched, and its course carefully noted.

Cremation.—The fourth Hygienic Congress, lately sitting at Geneva, has unanimously passed a resolution in favour of cremation. The Congress calls the attention of governments to the advantage of having an established system of cremation in case of epidemics.

COMMUNICATIONS have been received from—

Dr. J. B. Mitchell, Mentone, France; Dr. Herbert Watney, London; Mr. Munro Scott, London; Mr. James Dixon, Dorking; The Registrar of the Apothecaries' Hall, London; Dr. F. A. Fradelli, London; The Secretary of the Royal Hospital for Children and Women, London; The Secretary of the Central Association for Stopping the Sale of Intoxicating Liquors on Sunday, London; Mr. J. Broadbent, Waterloo; Dr. Manning, New South Wales; Messrs. Willebrandt, Klinkert, and Co., Dublin; Mr. J. T. W. Bacot, London; Dr. Matthews Duncan, London; Dr. S. Sharkey, London; Mr. J. Chatto, London; The Registrar-General, Edinburgh; Dr. John H. Clarke, London; Dr. Alexander, Liverpool; Dr. Neale, London; Mr. Mark H. Judge, London; Dr. Bushell Anningson, Cambridge; Dr. Joseph Harper, Barnstaple; The Dean of the Medical Department of King's College, London; The Secretary of the Sanitary Institute of Great Britain, Newcastle-upon-Tyne; Messrs. Street Brothers, London.

BOOKS, ETC., RECEIVED—

Notes on Books, by Messrs. Longmans and Co., No. CX.—A Critique on the Criticisms of the Simplicity of Life, by Ralph Richardson, M.A., M.D.—Annual Report on the Sanitary Condition of St. Pancras—Measles and Whooping-cough, by John Tatham, M.D.—Report on the Health, etc., of Kensington for the Four Weeks, July 15 to Aug. 12, 1882—Rupture of the Bladder, by A. W. Stein, M.D.—On the Nomenclature and Classification of Diseases of the Skin, by L. Duncan Bulkley—Harvey on Plant for the Manufacture of Iodine—Report on the London Water-Supply—Medical Communications of the Massachusetts Medical Society—Pasteur's Germ Culture—Nice and its Climate, by Dr. A. Bardy—Tenth Annual Report of the Local Government Board, 1880-81—Brighton as it Is, 1882—Look Hospitals, etc., by Fredk. W. Lowndes, M.R.C.S.—National Association for the Promotion of Social Science: Programme of Meeting—Addresses of County and Borough Magistrates on Temperance.—Annual Report of the Wonford House Hospital for the Insane, near Exeter, for the Year 1881—Address in Surgery, by William Bowman, Hon. M.D. Dublin, etc.—What has Experimental Physiology done for the Advancement of the Practice of Surgery? by Robert M'Donnell, M.D., F.R.S.—Experiments on Life, by John Simon, C.B.—Vivisection: What Good has it Done? by G. M. Humphry, M.D., F.R.S.—Diseases of the Skin, by Louis A. Duhring, M.D.—Chemistry, Inorganic and Organic, by Thomas W. Drinkwater, F.C.S.—Syphilis, by V. Cornil.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Journal of the Virginia Association—Journal of the British Dental Association—North Carolina Medical Journal—American Journal of Neurology and Psychiatry—Physician and Surgeon—Detroit Lancet—Revue de Chirurgie—New York Medical Journal—Maryland Medical Journal—Students' Journal and Hospital Gazette—Canada Lancet—Sydney Daily Telegraph, July 15 and 17.

APPOINTMENTS FOR THE WEEK.

September 23. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

25. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m., Royal Westminster Ophthalmic, 1½ p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

27. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

29. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ORIGINAL LECTURES.

LECTURE ON
DILATATION OF THE HEART.

By BRYAN CHARLES WALLER, M.D., F.R.C.S. Edin.,
Lecturer on Pathology in the Edinburgh School of Medicine.

GENTLEMEN,—The term Dilatation of the Heart is usually applied to a uniform, as distinguished from a circumscribed or aneurismal, increase in the size and capacity of one or more of the cavities. We shall accordingly understand the term in this sense during the present lecture.

Dilatation, like Hypertrophy, may be General or Partial, and may be divided into three corresponding varieties, according to the relation between the degree of alteration in the size of the cavities and the thickness of their walls. In Simple Dilatation the affected cavity is enlarged, while the thickness of the wall remains unaltered. The second variety is identical with Excentric Hypertrophy, and is characterised by enlargement of the cavity with thickening of the wall. So long as the structure of the muscular parietes continues normal, the effects produced will be those of excentric hypertrophy; but should the hypertrophied wall undergo subsequent degeneration, as not unfrequently happens, the symptoms characteristic of hypertrophy will then disappear, giving place to others indicative of dilatation. The third and most important variety, which is known as Dilatation with Attenuation, consists in enlargement of the cavity with thinning of the walls. Its effects are especially unfavourable, for not only does the dilated heart contain more blood, but its propulsive power is at the same time impaired by the stretching of its walls. This is the condition usually spoken of as Dilatation in ordinary clinical parlance.

Etiologically, Dilatation may be grouped under two principal heads. The first set of causes are those producing Over-distension; the second, those involving Degenerative Alterations in the substance of the muscular walls. The former act by over-stretching the myocardial tissue; the latter, by diminishing the elastic resistance whereby the walls are enabled to withstand the effects of inside pressure. A simple illustration may perhaps prove serviceable in fixing this distinction clearly in the memory. Let us suppose that an elastic india-rubber bag, the ordinary capacity of which is one quart, is distended by means of a syringe till it contains a quart and a half or two quarts of fluid. The walls would then be over-stretched, and their diameter proportionally lessened. If the distension is continued long enough, the bag when emptied will remain permanently enlarged, because the prolonged tension has so impaired its natural elasticity as to render it incapable of again contracting to its original dimensions. A bag so over-stretched is analogous to a heart dilated from over-distension. But now suppose that the india-rubber is of very inferior quality, so doughy and inelastic as not to be able to contract after even the most moderate stretching. If such a bag be filled with a quart of water, the walls, unless supported on the outside, will tend to give way in an outward direction under the pressure of the weight of the contained fluid. Thus, after say twenty-four hours, the capacity may be increased to the extent of an additional ounce. If enough water be now added to fill the bag again completely, the walls will then be pressed outwards by the weight of a quart and an ounce of water, so that as time goes on the weight of the water will continually act in increasing the capacity of the bag, and the repeated additions of water which this increase in capacity permits will likewise act in accelerating the process of distension in proportion to the progressive increase in the weight of the contained fluid. The mechanism of this latter process is analogous to that of Dilatation from degeneration of the cardiac walls.

We shall first consider those dilatations resulting from Over-distension. *Cæteris paribus*, it is obvious that the thinner the walls of any elastic bag, the less will be the force required to over-distend it. The force being constant, the thinner the bag, the more readily will it distend. Thus the thinner the walls of a cardiac cavity, the greater will be its liability to dilatation from over-distension. Now, the normal thickness of the wall of the right auricle may be roughly stated at 1 line; that of the left auricle 1½ lines; that of the right ventricle at 2 lines in males, and 1½ in females; while that of the left ventricle is about 5 lines in males, and 4½ in females (Bizot). Accordingly we find that the relative frequency of dilatation in the respective cavities is inversely proportional to the thickness of their walls, the right auricle being most liable, and the left ventricle least so.

The majority of over-distending causes are connected with valvular disease. Both stenosis and incompetency may give rise to dilatation of the cavity which lies behind the affected valve in the circulatory round, though the mechanism in each case is somewhat different. We will illustrate that of stenosis by taking the case of the left auricle when the mitral orifice is constricted.

The aperture of exit being narrowed, the auricle is not completely emptied during systole, and the blood flowing from the pulmonary veins during the auricular diastole arrives at that cavity to find it partially filled with the blood which it has not succeeded in driving onwards through the constricted mitral valve. The blood from the pulmonary veins continues to enter, until the auricle is full; but as the auricular discharge is obstructed while the supply is free, engorgement and increased tension in the auricle and pulmonary veins must obviously result. The auricle will then dilate, unless the resisting power of its walls equals or exceeds the total amount of outward pressure. But as this outward pressure is increased while the resisting power of the auricular wall remains constant, it is obvious that unless the auricle originally possessed a considerable reserve of elastic resistance, it must necessarily evince a tendency to dilate. If hypertrophy steps in at this stage of the process, the incipient dilatation will probably cease. The reason for this is twofold. Firstly, the hypertrophy increases the propulsive power of the auricle, thus facilitating the discharge of its contents and the reduction of tension; and, secondly, it directly increases the strength of the walls, enabling them to meet increased tension with increased resistance. Such a secondary hypertrophic compensation occurs pretty frequently. Were it otherwise the effects of valvular lesions would be much more immediately serious. But if hypertrophy does not supervene, or if the muscular substance when hypertrophied undergoes subsequent degeneration, the grave consequences of uncompensated dilatation soon begin to appear. Further, if unchecked by hypertrophy, dilatation, when once begun, tends to advance progressively. The original dilating force increases *pari passu* as the capacity of the cavity enlarges: the walls, too weak at first to withstand the effects of the increased tension, are now still weaker from the subsequent over-stretching; the dilating forces increase; the resisting forces diminish; and the dilatation proceeds more rapidly the longer the conditions continue.

The mechanical factors which chiefly determine the dilatation of stenosis are therefore: (i.) Imperfect systolic obliteration of the cavity; and (ii.) Over-distension, from engorgement and increased tension. Dilatation from obstructive conditions alone is very rare in the left ventricle, because of the great power of its walls; but in the weaker cavities it is not infrequent, though the dilating effects of stenosis are always inferior to those of incompetence.

Very similar to the mechanism of dilatation from stenosis is that of dilatation of the right ventricle from emphysema and other obstructive conditions in the lung. The seat of obstruction is, of course, somewhat further removed from the heart, but its effects in preventing efficient systolic contraction, and in causing engorgement and increased tension, are precisely those which we have just described in the case of the left auricle. For the reasons before mentioned, obstructive conditions on the left side of the heart are not so prone to cause dilatation of the left ventricle; but in certain exceptional instances, when the nutritive provisions of the economy are in bad order, obstructions in the course of the systemic circulation, such as senile rigidity of arteries, atheroma, aneurism, endo-arteritis obliterans, etc., which usually act as causes of hypertrophy, may occasionally give rise to the opposite condition of dilatation.

Let us now turn our attention to the mechanism of dilatation from valvular incompetency. Suppose the aortic valves are incompetent, what will be the effect upon the left ventricle? This question has been partially answered in the previous lecture on Hypertrophy; but for the sake of perspicuity and continuity in the treatment of our subject, we shall now again recur to it.

Under normal conditions, when the left ventricular systole is just over, and the muscular fibres are passive, the closure of the semi-lunar valves prevents the return of blood from the aorta. But if these valves do not close completely, the elastic recoil of the distended aortic coats will not only force the blood onwards into the systemic arteries, but also backwards into the cavity of the ventricle. This forcible regurgitation will, as it were, take the muscular walls of the ventricle by surprise—that is to say, in the passive and non-contracting condition which follows the termination of systole. Were the recoil of blood to occur when the ventricular walls were in the act of contracting, its effects would be much more easily withstood; but just as a child may overthrow a Hercules by a sudden and unexpected assault, so the walls of the ventricle, being taken at a disadvantage, are forced outwards by the regurgitating fluid, and the continued repetition of this process suffices at last to produce permanent dilatation. Abnormal inside pressure during diastole, when the muscular walls are unprepared to withstand it, is therefore the true etiology of these cases of regurgitant dilatation. During systole the effects of outward pressure are inconsiderable, because the walls are, so to speak, on their guard; but during diastole they are caught napping, and yield tamely without much resistance.

When the aortic valves are simultaneously stenosed and incompetent, the tendency to marked dilatation of the left ventricle is very great. The mechanism is that of both causes combined; for though stenosis alone would probably have but little dilating effect, it nevertheless acts as a powerful adjuvant to that of the coexistent regurgitation. Here is a heart, in the left ventricle of which I can place my closed fist. The aortic orifice has been the seat of endocarditis, and is much narrowed and converted into a rigid ring. The walls of the left ventricle are considerably thinner than those of a normal heart. This specimen is an excellent example of dilatation with attenuation produced by a combination of stenosis and incompetence of the aortic valves.

In the lecture on Hypertrophy we also alluded to the mechanism of dilatation of the left ventricle from mitral regurgitation. We shall accordingly now allow a brief description of it to suffice. During the ventricular systole the blood is forced backwards into the left auricle, as well as forwards into the aorta. The left auricle and the pulmonary veins are thus distended with blood during the systole of the ventricle; and the moment the systole is over they re-discharge the regurgitated blood with some force into the ventricular cavity, thus surprising its walls in a state of diastole. Not unfrequently the left auricle hypertrophies, and thus adds to the force with which the diastolic rush of blood is delivered into the cavity of the left ventricle. Thus a certain amount of dilatation commonly ensues, though to a less extent than in regurgitant disease of the aortic valves.

In mitral stenosis there is, of course, no dilatation of the left ventricle; but the corresponding auricle is dilated, with or without hypertrophy, as we have previously described.

When once a dilatation is effected, an attempt at repair and compensation is usually, but not always, initiated by an effort in the direction of excentric hypertrophy. As the dilated cavity has a greater fluid dead-weight to propel, while its contractile powers are at the same time diminished, this is, indeed, the only way whereby the mischief may be partially rectified. But hypertrophy demands certain favourable conditions. In the first place, the systemic nutrition must be good; and, in the second place, the muscular tissue of the over-stretched walls must be free from degenerative changes. Again, if the dilatation is extreme, the powers of nature may prove unequal to the task of effecting an adequate hypertrophic compensation. In the absence of hypertrophy, the consequences of dilatation will soon begin to manifest themselves; but a secondary hypertrophy may lead to their indefinite postponement, or at all events to their material modification and amelioration. In the latter event, matters will continue on a better footing, so long as the hypertrophic compensation remains effective. Unfortunately, however, hypertrophied hearts are very liable to undergo fatty degeneration, which puts a period to the increase in their functional powers. The excessive activity, which at first repaired its own damages by provoking hypertrophy, seems afterwards to act on the hypertrophied heart in such a manner as to induce degeneration. The reason of this is obscure, for no such degeneration dogs the steps of functional hypertrophy of the voluntary muscles. The leg of the dancer and the arm of the blacksmith preserve their size and activity intact; nay, up to a certain point they even continue to hypertrophy with use. It is, therefore, somewhat inexplicable that hypertrophied hearts should presently become liable to this dangerous termination of their increased endowments. Still, we must remember that the work of the heart is far harder than that of any voluntary muscle; and it is possible that were the strain on the blacksmith's arm as severe and prolonged as that on many hypertrophied hearts, it too might, in its turn, gradually succumb. Further, we must not lose sight of the structural differences between the cardiac chains of muscle-cells and the continuous fibres of voluntary muscle, nor yet of the supposed lack of a sarcolemma in the case of the myocardial elements; and though ignorant as to how these structural peculiarities may act in determining the development of degenerative proclivities, we should nevertheless bear in mind that if the heart-muscle does occasionally behave in a different manner from ordinary striped muscle, it is also at the same time distinguished by structural peculiarities, the import of which, though at present imperfectly known, may possibly at some future time be proved sufficient to account for the apparent anomaly. One hypothesis suggests itself to my mind, which I may here mention. Since the cardiac fibres are composed of chains of muscle-cells held together by cement substance, they are probably more liable to break transversely than those of ordinary muscle. A fibre so broken would be functionally inactive, and therefore especially liable to fatty necrobiosis. Now, if we suppose that the exertions of an hypertrophied heart may from time to time entail such breakages, we can easily see how an ever-increasing number of small foci of fatty degeneration may form here and there in the course of years. The effect of each singly would be inappreciable; but it is no violation of probability to conclude that the aggregate of all these littles may at last prove sufficient to make a mickle. At any rate, it is in such scattered foci that the fatty changes occur; and in examining the fibres of hypertrophied hearts microscopically, I have often met with a few such spots, while the great bulk of the muscular tissue still continued normal. Nevertheless, in default of further evidence, I would present this idea to you rather in the light of conjecture than in that of a satisfactory solution of this interesting problem.

From this degeneration, which practically converts an excentric hypertrophy into an uncompensated dilatation, we now pass to those cases in which degeneration of the cardiac wall is the primary lesion, and the direct cause of dilatation of the cavities. This second great group of the causes of dilatation comprises all those degenerative alterations which diminish the power of the muscular walls to withstand the outward pressure of the contained blood. Of these, fatty degeneration is again the most important. The muscular fibres of the affected portions are metamorphosed into molecular fat, and in the latest stages are completely converted into fatty *débris*. Not only is the systolic power impaired, but the walls also lose their elasticity, and tend to give way before the pressure of the blood as it pours into the cavities during diastole. Fatty degeneration is always a serious condition, since the functionally active muscular fibres are changed into functionally useless fatty matters. But when dilatation supervenes the prognosis is very gloomy. There is no attempt at hypertrophic compensation, even on the part of those muscular fibres which are little, if at all, degenerated; for the fatty change is indicative of defective nutrition of the myocardial tissue, and hypertrophy, as we have already learnt, is only to be looked for when the textural nutrition is good. The dilatation of fatty degeneration is thus completely uncompensated, and its deleterious effects upon the circulation are rapidly apparent, more especially if there be valvular disease.

In pericarditis, the muscular tissue is the seat of a certain slight amount of collateral serous infiltration, which in long-standing cases is sometimes sufficient to impair the tonicity

of the fibres, so as to give rise to a moderate amount of dilatation. This is usually transient, the cavities recovering their normal dimensions when the œdema subsides with the disappearance of the pericardial inflammation. In a few cases, however, permanent enlargement may result; though it is generally followed and repaired by excentric hypertrophy.

Dilatation may also result from atrophic conditions of the walls of the heart, that is to say, if the blood-pressure be not simultaneously lowered. In many of the exanthemata, and particularly in typhus fever, which is attended with a peculiar softening and fatty degeneration of the superficial layers of the myocardial fibres, evidences of a transient dilatation are often seen by the physician clinically, or by the pathologist at the autopsy; but should the patient survive, the normal *status quo* is generally quickly re-established as the effects of the fever subside. A transient dilatation is not uncommonly associated with chlorosis, which is principally, if not entirely, traceable to atrophy of the heart-muscle from general malnutrition. Possibly also the curious dilatation of exophthalmic goitre may sometimes arise from a similar cause.

A dilated heart, when emptied of blood, is not heavier than a normal one, save when the walls are at the same time hypertrophied. The size is increased according to the degree of dilatation. The contour will depend upon whether the dilatation is General or Partial. In General Dilatation the angles become more obtuse and rounded. In the Partial form the right side is more frequently affected than the left; but in either case the shape is more globular, and the heart appears broader in proportion to its length. The colour varies from dark reddish-brown to a somewhat pale hue. The consistence is diminished, and the organ feels flabby. Milk-spots from friction are pretty common on the anterior surface. On section, the affected cavities are seen to be enlarged; but if the dilatation is inconsiderable, there may be some difficulty in determining its existence. Precise measurement should always be employed. In excentric hypertrophy the walls of the dilated cavity are of course thickened.

Microscopical examination will determine the presence or absence of degenerative changes in the muscular fibres. In simple dilatation, the thickness of the wall is natural, in spite of the increase in the size of the cavity. It is obvious, however, that if a cavity be dilated its walls must be thinned, unless in the presence of so much hypertrophy as is sufficient to restore them to their normal diameter. So-called cases of simple dilatation are therefore really examples of dilatation with moderate hypertrophy. In dilatation with attenuation the thickness of the wall is reduced. If the left ventricle is thus affected, its walls collapse when cut open, though normally their consistence maintains them apart. In extreme cases of stretching and thinning of the muscular substance, the trabecular network and musculi papillares—nay, even the walls themselves—sometimes appear merely tendinous, and almost destitute of muscular structure.

The presence or absence of degenerative changes must be ascertained by the microscopic examination of a few teazed-out fibres. The most frequent alterations are Fatty Degeneration and Brown Atrophic Pigmentation, the first being by far the more important.

The effects upon the circulation vary with the presence or absence of hypertrophy. As those of excentric hypertrophy have been already discussed, it now merely remains for us to consider those of dilatation alone, whether with or without attenuation and degeneration of the cardiac walls. The greater the degeneration or attenuation, the more marked will be the symptoms; while, if degeneration and attenuation co-exist, they will assume an especially aggravated type.

Dilatation without hypertrophy always impairs the propulsive force of the affected cavity. If the dilatation be simple, the fluid dead-weight is greater, while the driving power remains constant; while in dilatation with attenuation the driving power is at the same time lessened. The effects will perhaps be best illustrated by an example. Suppose the seat of dilatation to be the right ventricle. The discharge of blood to the lungs will be insufficient, because the overloaded ventricle will not be equal to its task. The systolic contractions will be incomplete, and a part of the blood which ought to have passed onwards to the lungs will remain in the cavity during diastole. The vessels of the lungs, the left side of the heart, and the systemic arteries will accordingly receive only a portion of their normal blood-supply. The blood will accumulate in the great veins behind the dilated ventricle in the circulatory round; the pulmonary and systemic arteries will be half empty; the whole circulation will be retarded; and arterialisation in the lungs will be greatly interfered with. Hence arterial anæmia, venous engorgement, and dyspnœa from insufficient aëration of blood, will speedily follow. The arterial anæmia will cause pallor of the countenance, while the venous engorgement will tend to produce cyanosis and dropsy. The face will assume a leaden or livid hue, the feet and ankles will swell, the liver will become engorged with venous blood, and dropsical fluid will collect in the peritoneal cavity. The pulse will be small, feeble, and often irregular and intermittent; the heart's impulse against the chest-wall will be weak or scarcely perceptible. The emptiness and diminished tension of the arteries will cause a diminution in the liquid constituents of the renal secretion; the urine will be scanty and high-coloured, and will deposit a copious cloud of urates on cooling. The venous engorgement will generally give rise to a certain amount of albuminuria. The dropsy will presently extend to the subcutaneous tissue, and to the cavities of the pleuræ. The laborious action of the heart will cause distressing palpitation, and the dyspnœa will become so aggravated by movement or exertion that the patient will be obliged to remain in a condition of complete quiescence.

In short, the circulatory conditions may be summed up in the following few words:—*Venous engorgement behind the affected cavity, arterial anæmia in front of it, and retardation of the whole circulation.* All these conditions will be aggravated by the co-existence of valvular disease.

In dilatation of the left ventricle the effects are very similar, save that the lungs, being situated behind the dilated cavity, are engorged with blood. In general dilatation, œdema of the lungs is prone to occur with fatal results.

The following are the principal physical signs:—The præcordial region is never abnormally prominent, as in excentric hypertrophy. The apex-beat, if present, is generally displaced downwards and to the left; it is usually very feeble, and sometimes entirely absent. As in hypertrophy, the area of cardiac dulness is extended, and principally in the transverse diameter. By percussion alone, dilatation cannot be distinguished from hypertrophy, as the acoustic phenomena are identical. The heart-sounds are normal in character if there be no valvular disease, but feeble, undecided, and sometimes muffled. Certain murmurs, unconnected with valvular disease, are sometimes audible. They are thought to depend upon irregularity in the vibrations into which the ill-stretched valves are thrown by the current of blood (Niemeyer), and are probably analogous to those of anæmia and chlorosis.

Let us now shortly contrast the phenomena of dilatation with those of hypertrophy. Suppose the left ventricle to be the cavity affected. In hypertrophy the results would be systemic arterial hyperæmia, easy and unobstructed venous return, pulmonary anæmia, and acceleration of the blood-current in both circulations. In dilatation, on the contrary, we should encounter systemic arterial anæmia with venous and capillary engorgement; the left auricle, the pulmonary circulation, and the right side of the heart would be engorged with blood, and the blood-current in both circulations would be slackened.

The contrast between the effects of general dilatation and general hypertrophy is even more marked, and may be stated in still fewer words. In general hypertrophy the arteries are hyperæmic, the veins anæmic, and the whole circulation is quickened. In general dilatation the arteries are anæmic, the veins engorged, and the whole circulation retarded.

In hypertrophy of the right ventricle the consequences are pulmonary hyperæmia, systemic arterial anæmia, and acceleration of the whole circulation. In dilatation of the right ventricle the results are pulmonary and systemic arterial anæmia, great systemic venous engorgement, and retardation of the whole circulation.

From a general review of these consequences, we learn that just as the chief brunt of hypertrophy is borne by the arteries either of the pulmonary or systemic circulation, so the effects of dilatation are principally centred upon the veins. Further, in hypertrophy the circulation is quickened, while in dilatation it is retarded. The possible ill effects of hypertrophy arise from the danger of arterial rupture, while

those of dilatation are due to venous stasis and imperfect aeration of blood. Lastly, hypertrophy is often compensatory, and so far favourable in its tendency, while the results of uncompensated dilatation are invariably untoward.

In concluding these remarks on Hypertrophy and Dilatation, I would point out to you the importance of adopting a clinical as well as an anatomical standpoint in your review of pathological facts. The notion is nowadays becoming far too prevalent that Pathology is a science *per se*—a branch of study to be cultivated exclusively in the laboratory with scalpel and microscope, and not in the ward or the consulting-room, where the facts of the dead body are, as it were, illustrated and commented upon by the signs and symptoms observed in the living. It is urged in many quarters that the range of the science and art of Pathology is so extensive as to demand an exclusive devotion on the part of its special votaries. It is said that a thorough pathologist has no time to be a physician. A more mischievous mistake could hardly be committed. How can anyone accurately estimate the significance of pathological changes, while he wilfully shuts his eyes to those effects which they produce in the living body? Such a man may be well skilled in the anatomy of morbid structures, but he will remain woefully ignorant of diseased processes; he will be unable to trace the connexion between anatomical cause and physiological effect, and will thus fall into egregious blunders; and his knowledge will remain a dead letter instead of becoming a living power. True scientific Pathology is not to be learnt in this restricted manner. It is not merely synonymous with Morbid Anatomy, as is well seen in the two conditions we have just been discussing. The structural changes which they involve are comparatively simple, while their results are complex and far-reaching, and only intelligible in the light of clinical observation. A physician who practises and teaches Pathology must necessarily to a large extent specialise his studies; but while primarily engaged in pathological research, he should not neglect its obvious applications, for by so doing he would simply defeat his own ends. The broader a man's mental horizon, the better, if we may be allowed the term, can he take his own bearings. Liberal and comprehensive specialism is an absolute necessity, for Art is longer, while Life is as short as in the days of Hippocrates; but blind and exclusive specialism is the curse of our times, and an error to be sedulously avoided by every truly scientific mind.

Abuse of Injections of Morphia.—At the first Athens Medical Congress (*Gaz. Méd. d'Orient*, July), Dr. Zambaco terminated a paper upon this subject with these resolutions:—1. Although the subcutaneous injection of morphia is so precious a means for the relief of pain of all descriptions, patients often contract a habit of using it which it is almost impossible to break through, continuing to employ it after the reason for its use has passed away, and progressively increasing the dose, and inducing a slow poisoning which acts on nutrition and on the intellectual faculties. 2. Practitioners should prescribe these injections with much precaution, and should not allow the patients to practise them themselves, in order to prevent them contracting the fatal habit. 3. On account of the dangerous effects of their prolonged employment, they should not be used in chronic disease of the heart, in cerebral affections, or in any disease accompanied by debility in general, and especially that of the nervous system. In such cases we may obtain ease advantageously by the hypodermic use of sulphuric ether. 4. The general enthusiasm which at one time gained hold of the profession for these injections has, in face of the calamities that have resulted from their employment, diminished. 5. Although opium acts by its alkaloids, and especially morphia, yet it and its extracts are often preferable to morphia, and it has been an error to so generally displace it.—After other speakers had expressed themselves in the same sense, Dr. Galvani said he considered that their observations savoured somewhat of exaggeration, and that it would be doing a great injury to medical art to discredit the proper use of these injections, which, like any other remedy, may be abused. Morphinism is especially observed in the great centres of civilisation, wherein many have their nervous systems in a condition predisposed for its production. Morphia always requires to be administered with precaution and in relation to the idiosyncrasies of the recipients.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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Lecture XII.

B.—ORGANIC AFFECTIONS.

1.—Those defined by Uniform Causes.

2. Syphilitic Affections of the Skin.

A. Acquired Syphilis.

As is well known, there are three forms of primary venereal disease:

1. Gonorrhœa, which may induce Orchitis or Bubo, or may lead to an affection of the eyes (Gonorrhœal Ophthalmia), or of the joints (Gonorrhœal Rheumatism), but which never otherwise affects the system.

2. The Non-infecting (Soft) Chancre, which is always a local sore, though it may spread by inoculation of neighbouring parts, or by absorption of the secretion by the lymphatics, producing suppuration of a neighbouring gland, the pus from which is identical with, and as infectious as, that secreted by the sore itself.

3. The Infecting (Hard, Indurated, or Hunterian) Chancre—which, however, is not invariably hard and indurated—which always infects the system, unless in rare instances, when the patient has previously suffered from Syphilis, when the system *may* apparently escape re-contamination.

It is only the last of these three forms of venereal disease which is of interest to us at the present time, because it alone can give rise to skin affections; but in the diagnosis of the latter, it is often of importance to decide whether a sore preceding a given eruption has been of a non-infecting or of an infecting character. With the view of elucidating this point the following table is appended:—

Infecting Chancre.	*Non-infecting Chancre.*
1. Four times less frequent than non-infecting chancre.	1. Presumption always in favour of non-infecting chancre, being so much commoner.
2. Appears from ten days to six weeks after exposure to infection.	2. Appears within two or three days of exposure to infection.
3. Often more like an abrasion of the cuticle than a distinct ulcer; cup-shaped, and with an ash-grey base; rarely attacked by phagedæna.	3. A distinct ulcer, usually with perpendicular edges, as if made with a punch; base irregular and honey-combed, often attacked by phagedæna.
4. Hard—sometimes of almost cartilaginous consistence—and distinctly circumscribed. Induration absent in one-twentieth of cases in men, and oftener in women.	4. Often some hardness from simple inflammatory infiltration, but never cartilaginous; not so distinctly circumscribed, and though edges may be hard, centre usually soft enough to allow sore to be doubled up between fingers.
5. Secretion scanty, thin, and watery.	5. Secretion abundant and purulent.
6. Inoculation of secretion produces hard chancre in others, especially if they have not had the disease; but not usually auto-inoculable, because one infecting chancre usually protects the system from a second.	6. Inoculation of secretion produces soft chancres in person affected as well as in healthy persons, because one soft chancre is no protection against others.
7. Generally solitary, but if more than one chancre they commence at same time, for reason above given.	7. Often a succession of soft sores from inoculation of neighbouring parts by pus from original sore, for reason above given.
8. Heals readily unless irritated by treatment.	8. Heals with difficulty, sometimes after months.
9. Cicatrix comparatively trifling, and may disappear entirely.	9. Cicatrix more marked, and generally permanent.

10. Usually followed within a few weeks by indolent non-suppurating enlargement of neighbouring glands (in inguinal regions if chancre on penis).	10. Often followed by absorption of virus from sore, and suppuration of one gland, the pus from which is virulent like that from the sore itself.
11. Always followed by constitutional symptoms, unless patient had the disease before, when they *may* be absent.	11. Never followed by constitutional symptoms.
12. Mercury hastens healing of the sore, and disappearance of the induration.	12. Mercury generally has no effect upon it, or may even retard healing process.

It is right to mention that the infecting chancre is not uncommon on other parts than the genital organs, and that it does not necessarily result from impure connexion. I have often met with it on the fingers of medical men, who have been inoculated in making vaginal examinations; on the lip—generally as the result of inoculation of the secretion from secondary sores on the lips of patients suffering from Syphilis, or of infants affected with hereditary Syphilis and from smoking pipes or cigars which have been in the mouths of syphilitic subjects. It may also be communicated by the use of Eustachian catheters or other instruments previously employed in the case of patients tainted with Syphilis, and not properly cleansed, and occasionally through the medium of vaccine lymph (especially if mixed with blood) taken from a syphilitic child. Finally, to show how unexpectedly Syphilis may be transmitted, the following case reported to me by my friend Dr. Hector C. Cameron, may be mentioned:—A man having a "black eye," a friend, who had syphilitic sores in his mouth, endeavoured to cure it by puncturing the part and sucking it: three weeks thereafter a hard chancre appeared at the site of puncture, followed by neighbouring adenopathy, syphilitic eruptions on the skin, etc.

The course of Syphilis may be modified or interrupted by intercurrent diseases, especially fevers, which may cause the disappearance of the symptoms for a time, but only while the fever lasts; and in those who are tainted, manifestations of Syphilis may be brought out in various ways. Thus, excessive smoking may call forth, or keep up indefinitely, syphilitic ulceration of the mouth, tongue, and throat, and a blow or injury of any kind may induce manifestations in the part injured. They may also be called forth by excessive bodily fatigue or mental anxiety. Hardy mentions the case of a man who was shipwrecked, and who for many hours was in a most precarious position: fifteen days thereafter a severe tertiary syphilitic eruption made its appearance, although twenty-five years had elapsed since the entrance of the poison into the system. Syphilitic eruptions may also be called forth by the employment of irritating local applications, such as sulphur ointment; and at some of the thermal establishments in France—Aix-la-Chapelle, for example—this circumstance is utilised with the view of determining whether the poison in the system is still active and requiring treatment.

Finally, hot weather has sometimes the effect of calling forth cutaneous manifestations of Syphilis, and on the same principle the skin and superficial parts are most apt to suffer in warm, the deeper parts in cold climates.

Syphilitic Eruptions are generally divided into two classes.

1. Secondary Eruptions (early manifestations of Syphilis).

2. Tertiary Eruptions (late manifestations of Syphilis);

which merely mean that some have a tendency to appear soon, others long after the entrance of the poison into the system; and it may be remarked, in passing, that the character of the eruption depends a good deal upon the intensity of the poison, and upon the general health and constitution of the patient. Hence an eruption, as has been observed by Ricord, is likely to be of a dry nature when the constitution is good, while there is a great tendency to suppuration and to ulceration under opposite conditions, a circumstance which must be borne in mind in connexion with the treatment. Syphilitic eruptions are variously named, sometimes from the predominating elementary lesion (*e.g.*, papular syphilitic eruption, tubercular syphilitic eruption, etc.), sometimes in accordance with the non-syphilitic eruptions which they most resemble (*e.g.*, Roseola syphilitica, Psoriasis syphilitica, etc.), to which there is no objection *so long as it is understood that there is no real relationship, but only a resemblance, between them.*

Before considering the eruptions in detail it may clear the way if we refer in the first instance to the

General Diagnosis of Syphilitic Eruptions.

The following points must be attended to:—

1. *The History of the Case.*—A clear history of an infecting chancre is often of great value in diagnosis, but it is often difficult to obtain, partly from a desire for concealment on the part of the patient, partly because he may have forgotten or may even be ignorant that he has ever suffered from such a lesion; and even when got it is only of value if the interval of time which has elapsed between the contraction of the disease and the appearance of the eruption is in fair accord with the natural history of the disease. Thus a Roseola making an appearance years after the contraction of the chancre has evidently no connexion with it, seeing that it usually occurs within two or three months of infection; and an eruption of groups of large tubercles occurring within two or three months of infection has probably no connexion with it, for it has little tendency to manifest itself in the early stages of the disease.

2. *The Detection of Concomitant Symptoms of Syphilis.*—The earlier Syphilitic Eruptions are apt to be associated with such symptoms as superficial symmetrical ulceration of the throat and mouth generally, enlargement of the posterior cervical glands, falling out of the hair,(a) Iritis, etc., the latter with painful nodes upon the shins and other superficial bones, enlargement of the testicle, little subcutaneous tumours, and syphilitic diseases of internal organs.

3. *Syphilitic eruptions are usually symmetrical*, and this may be of value in diagnosis, in helping to distinguish, for example, Ringworm of the body, which is usually unsymmetrical (being due to a local cause), from a circular syphilitic rash resembling it. It is right, however, to remark that this feature applies only to the earlier, and not to the later manifestations, the latter, according to Hutchinson, being "due rather to the ill-constitution of the affected structures than to any free virus still circulating in the blood."

4. The eruption is often *polymorphous*, that is to say, it is common, in connexion with the earlier manifestations at all events, to find two or three different kinds of eruption at one time on the same patient. Thus it is far from unusual to see a papular eruption (Lichen syphiliticus) mingled with a roseolous one (Roseola syphilitica), and an eruption of flat tubercles (Condylomata) at the anus.

5. Syphilitic eruptions often assume a *coppery tint*, especially after they have been present for some time: they thus contrast with the majority of simple inflammations of the skin, which are usually more or less rosy, and with strumous eruptions, which are violet in tint. It must be remembered, however, that the patches of the non-syphilitic psoriasis have sometimes a somewhat coppery colour, although it is not usually so intense as in a typical chronic syphilitic eruption, and that non-syphilitic eruptions below the knees, especially if complicated with varicose veins, may assume a pretty deep brown colour.

6. There is usually an *absence of pain and itching*: the latter, however, may be present in connexion with the later manifestations, but never in the earlier stages of the disease, unless when the eruption is situated upon hairy parts, or at parts which are habitually in contact with one another, as at the anus. Generally speaking, however, itching is absent, and this is a point which is sometimes of the greatest value in the diagnosis of syphilitic from non-syphilitic eruptions,

(a) Loss of hair (syphilitic Alopecia) is one of the earliest and most frequent of the manifestations of syphilis, and is due to interference with the nutrition of hair follicles by the taint in the blood, although it is attributed by Hebra to the occurrence of Seborrhœa of the scalp. There is a general thinning of the hair (usually of the head only), which comes away very readily in combing, and gives rise to much alarm lest it may be sufficiently extensive to excite remark; this, however, is not usually the case. It is generally, too, a temporary condition. If the hairs are examined they are found to be pretty healthy, except that the bulbs are atrophied, and there is nothing in the Alopecia itself characteristic of syphilis, or different from that which is observed from other causes such as that which occurs after a severe attack of fever. The diagnosis can only be made from the history of the case, and from the simultaneous or subsequent appearance of other and characteristic lesions of Syphilis. Of course, we do not include in this description the patchy loss of hair which occasionally results from eruptions, mostly suppurative or tubercular on the scalp, especially in the late stages of Syphilis, which is due to destruction of the hair follicles, and is therefore permanent and associated with cicatrices.

such as Eczema and Scabies, in which it is usually a very distressing symptom. But it must not be forgotten that a patient may be suffering at one and the same time from a syphilitic eruption and an itchy skin disease such as Scabies, and which I have known to lead to errors of diagnosis.

7. Syphilitic eruptions have a great tendency to assume the *circular form*, or to appear in the shape of segments of circles when the healing process has commenced. This character, however, is not peculiar to them, but is shared in by other diseases, especially by Psoriasis, vegetable parasitic, and strumous affections, and must not therefore be trusted to alone.

8. The characters of the *scales, crusts, and ulcers* sometimes afford assistance in the diagnosis. The scales are usually thin, adherent, and greyish, although they are occasionally silvery like those of non-syphilitic Psoriasis, and this may be a source of confusion. The crusts when typical are thick, rough, very adherent, and have a greenish colour, while the ulcers are round, with perpendicular edges, and ash-grey bases, and the skin around has usually a coppery tint.

9. *The cicatrices* are sometimes characteristic, for when they are round and have a coppery edge they may be assumed to be the result of a bygone syphilitic ulceration, unless perhaps when they are situated upon the legs, where the coppery tint is sometimes simulated.

10. *An examination of internal organs* may afford important information. Amyloid disease of the kidneys, liver, spleen, bloodvessels of the stomach, bowels, etc., is usually the result of some wasting disease, of some long-continued suppuration, or of syphilis; and, in the absence of the two first causes, a syphilitic taint may be shrewdly suspected. It is in the later stages of syphilis, however, that this complication is apt to ensue.

11. Finally, a course of *anti-syphilitic treatment* may generally be relied upon in doubtful cases to clear up the diagnosis, a syphilitic eruption speedily improving, while a non-syphilitic one is generally either not affected or aggravated thereby.

Harmlessness of Hypodermic Injections.—Dr. Taylor, House-Physician of the Roosevelt Hospital, New York, writes to the *New York Medical Record*, August 26:—"Hypodermic injections of various substances are used in moderation in Roosevelt Hospital, according to indications. I never in my fourteen months' residence saw them followed by any worse effect than a little redness and induration, and these only in one or two instances. There have been given in the medical service during this period more than 3000 injections of different substances, such as Magendie's solution, atropia, quinine, whisky, digitaline, ether, carbolic acid, etc.; and these have not been followed by abscess in a single instance. A male patient with spasmodic asthma, whose attacks can be controlled only by morphia, has in about thirteen months had certainly over 1000 hypodermic injections, and never has had the least local trouble. Parenchymatous injections are preferred, and are practised in the majority of cases. Our solutions are not always fresh, and often contain conferva, and there is no special pains taken to clean the needles. Solutions over a month old and full of conferva have often been used. Our solutions of Magendie and atropia contain half a grain of salicylic acid to the ounce, and remain tolerably clear for several weeks. Does this prevent the growth of other ferments more noxious than algæ?"

Death of Professor Gurlt.—Geh. Medicinalrath Prof. Dr. E. F Gurlt, formerly Professor and Director of the Veterinary School at Berlin, died at Berlin, August 13, in the eighty-eighth year of his age. Finding, when wishing to study zoology in 1819, that no good handbook upon the subject existed, he set to work to prepare one, and in 1822 appeared his "Handbook of the Comparative Anatomy of the Domestic Animals," which at once took the highest position, and was succeeded by other manuals on comparative physiology and pathology. The intimate friend of Rudolphi, John Muller, Lichtenstein, and other medical celebrities, he attained the highest position as a teacher and a writer upon veterinary medicine. His works were numerous, and he established the first journal of veterinary medicine, his well-known *Magazin für Thierheilkunde*.

ORIGINAL COMMUNICATIONS.

TWO HUNDRED AND FIFTY YEARS OF SMALL-POX IN LONDON.

By WILLIAM A. GUY, M.B. Cantab., F.R.C.P., F.R.S.,
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The limited time ultimately allotted to me for the preparation of this paper has caused me to restrict myself to the figures relating to small-pox in London, reserving for possible future use the figures for England, which accordingly I hold in reserve. The years comprised in this survey may be roundly stated at two centuries and a half—two hundred and fifty years—or, more exactly, at the interval between 1629 and 1881, both inclusive, but with breaks presently to be pointed out and described.

It is well, perhaps, that I should show how it came to pass that I entered upon this inquiry. I did not undertake it in the spirit of controversy, but because I wished to find continuous occupation in copying and calculating for one who was eminently qualified to render me assistance in these matters, and who happened at that time to be disengaged. Hence it has come to pass that both the original figures, and the calculations based upon them, have been verified, and all sources of error in the figures on which this communication is based thus excluded, except such as are incidental to printed records copied from the manuscripts of those who furnished the returns. I must add that, when I took these figures in hand, I did not know to what conclusions they would lead me, though I felt convinced that, whatever they proved to be, they must have some bearing (perhaps an important one) on the question of the effect, favourable or unfavourable, of inoculation, and the efficacy of vaccination as a preventive of small-pox.

The sources from which my original figures, embodied in Table I. of the Appendix, were derived, are:—

1. "A Collection of the Yearly Bills of Mortality, from 1657 to 1758 inclusive. Together with several other Bills of an earlier date." [These tables are followed by four essays, of great interest to the statist and actuary, by Captain Graunt, Sir William Petty, Corbyn Morris, and J. P., Esq., all Fellows of the Royal Society. It bears date 1759, and is published by A. Millar, in the Strand.]

2. "Mortality of the Metropolis. A Statistical View of the Number of Persons reported to have Died of each of more than one hundred kinds of disease and casualties within the bills of mortality in each of the two hundred and four years, 1629-1831," etc. "By J. Marshall, Esq., 1832." Table I. of the Appendix is compiled from the figures given in this work.

3. "The Registrar-General's Annual Summary of Births, Deaths, and Causes of Death, in London and other cities, 1881." [Published 1882.]

4. "Observations on the Increase and Decrease of Different Diseases, and particularly of the Plague. By William Heberden, jun., M.D., F.R.S., 1801."

I am indebted, as I have just stated, for the figures relating to the years from 1629 to 1831 inclusive to the tables of J. Marshall; and for those from 1841 to 1881 inclusive to the "Annual Summary" of the Registrar-General, Table XI., pages xx. and xxi.

In the series of returns thus extending from the year 1629 to the year 1881 inclusive, there are certain breaks or interruptions which I must point out, and certain changes in the grouping of diseases which I must explain.

1. The breaks or interruptions occur as follows:—

a. After the year 1636, a break in the bills of ten years, with a resumption of them in 1647.

b. After the year 1831, a break of nine years, with a resumption of the returns in their improved form by the Registrar-General in 1838, and in their more mature form in 1841.

The changes in the grouping of diseases are the following:—

a. Small-pox included in the same group with flox, as "flox and small-pox," from the year 1629 to the year 1636 inclusive, and from the year 1647 to the year 1686 inclusive.(b)

(a) Read before the Statistical Society, June 20, 1882.

(b) In Marshall's tables the heading "Small-pox" is adopted; the mixed heading "Flox and Small-pox," and "Flox, Small-pox, and Measles" in the anonymous compilation No. I.

b. Flox, small-pox, and measles comprised in one group from the year 1687 to 1701 inclusive; the cases of measles in the last year of the series being returned as four in number.

c. Small-pox, as a distinct heading, and measles also distinct, from the year 1702 forwards; so that, by deducting the four cases of death by measles from the return of 1701, we obtain a continuous return of deaths by small-pox from 1701 to 1831 inclusive, and again from 1841 to 1881 inclusive. Hence we can compare, if we will, the forty years 1841 to 1880, with groups of forty years in the interval 1701 to 1831, being one hundred and thirty years; and this in respect both of small-pox and measles. If we would compare the fourteen years from 1687 to 1700 inclusive, with other equal groups of figures, we must add the deaths by measles to those by small-pox in the case of the groups we wish to bring into comparison with them.

Of the term "flox," associated with small-pox in the earlier returns, I may state that I have taken great pains to ascertain its true meaning by consulting old medical dictionaries and other works in which it was likely to be employed, and have arrived at the conclusion that flox was used to distinguish the confluent from the more distinct or discrete form of the same disease.(c)

But I attach the less importance to the discovery of the true meaning of this term, as its use is limited to the returns of the seventeenth century; and it is on a comparison of the forty years ending 1881 with the hundred and thirty years ending 1831 that I chiefly rely for the solution of the questions of interest involved in the study of small-pox, whether as an endemic or as an epidemic.

It will be understood, then, that the primary object of this communication is to throw light on the great and important epidemic malady, small-pox. To assist me in this inquiry I make use of the facts relating to another epidemic, measles, a disease of which the register extends over the same long period of time; and which, like small-pox, has outward appearances and leading symptoms easily recognised. So that in the earlier times, when the bills of mortality were compiled by the parish clerks from data supplied by women searchers, assisted by the medical practitioners of their day, the true cause of death was almost as likely to be reported as in these later days, when the facts are brought together by the Registrar-General acting on the certificates of medical men.

These two orders of facts are displayed in Table I. of the Appendix in parallel columns with the deaths from all causes, in the same years, reported by the same agents; while two other parallel columns exhibit the ratios per thousand resulting from the comparison of the deaths from small-pox and measles respectively with the deaths from all causes, accidents and still-births included, as well as the two diseases small-pox and measles themselves.

In the absence during the earlier periods of reliable data respecting population, and in the face of frequent changes in the area from which the death returns were drawn, as well as of sundry omissions of places and classes of people, I have been compelled to have recourse to the deaths from all causes as my standard of comparison. That these deaths are but rough approximations to the truth, especially in the days preceding the Registration Bill, I am well aware; but a glance at the figures themselves will convince us that the fluctuations in the deaths, both from special causes and from all causes collectively, are made plain, though wanting in exactness.(d)

Thus, if I take the figures which represent the deaths in London for the ten years ending 1680, 1780, and 1880 in the three centuries over which the figures extend—the seventeenth, eighteenth, and nineteenth centuries—and place them in order, each figure under that for the corresponding year, and if I further omit the last three figures of each year's return, I obtain the following series, which may be said to lend support the one to the other:—

Ten years ending—			
1680	16, 18, 17, 21, 18, 19, 19, 21, 22, 21.	Range 22 to 16.	
1780	22, 26, 22, 21, 21, 19, 23, 20, 20, 21.	„	26 „ 19.
1880	80, 71, 75, 77, 87, 88, 77, 84, 84, 81.	„	88 „ 71.

It will be seen that the figures in the third line, being those for the present century, and for the London of our own time, are about four times as numerous as those for the city of the seventeenth and eighteenth centuries, as comprised within the bills of mortality; so that if we divide the figures of this third line by four, we obtain a series nearly resembling in general character the series in the first and second lines.

Again, if I take the figures for small-pox for the same years in the same three centuries, and treat them in the same way, but omitting the last two figures, I obtain similar fluctuations, with a striking indication (which I notice in passing) of a falling off in the supply of deaths by small-pox in the century in which we are living. The figures are as follows:—

Ten years ending—			
1680	7, 11, 8, 25, 10, 4, 17, 18, 20, 7.	Range 25 to	4.
1780	17, 40, 10, 25, 27, 17, 26, 14, 25, 9.	„	40 „ 9.
1880	79, 18, 1, '57, '46, 7, 26, 13, 4, 5.	„	79 „ '46.

The first two lines of this comparison show similar fluctuations, though the scale is different, while the figures of the third line exhibit an amount of fluctuation that cannot fail to attract attention. It is clear that we are here dealing in this nineteenth century with an exceptional order of facts, brought about by some very potent force or forces. How exceptional it is we shall clearly perceive if we bear in mind what has just been stated, that the figures of the third line relate to the present century, when the deaths in London from all causes are four times as numerous as in the two previous centuries.

From these needful introductory explanations I pass on to consider the lessons which may be deduced from these returns. In the first place, it is obvious that we may learn something from them of the frequency of epidemic outbreaks of small-pox at different periods; also something of the maxima and minima to which the deaths from small-pox have risen and fallen; also something of the intervals between the epidemics. Having exhausted this field of inquiry, we may also hope to learn something from a like survey of the facts relating to measles, and still more from a careful comparison of the results of the one survey with those of the other. This may lead to new inquiries respecting certain other epidemics which cannot be traced throughout the whole period of 250 years, but may still extend over periods long enough to confirm or invalidate the conclusions to which a study of the returns for small-pox and measles had conducted us. I shall treat the questions here indicated under distinct headings in the order in which they occur.

I.—Number of Small-pox Epidemics at Different Periods.

Though we all understand what an epidemic malady means, and know that it implies a considerable and irregular excess of attacks and deaths in certain years as compared with others, and though, as an example in point, we should speak of small-pox as epidemic, and pulmonary consumption as non-epidemic, we are not able to state with numerical precision what amount of fluctuation or difference from year to year shall be held to constitute an epidemic, or what multiple of the average or minimum of deaths. In the absence of any numerical rule applicable to this subject, we shall not go far wrong if, passing in review the figures relating to a term of years, we lay hold of those that stand out in relief (if I may so express myself) from the figures which precede and follow. In the case of small-pox, I find such convenient figures in all numbers exceeding 100, and, with a view to a comparison of one period with another, I name 100 deaths or upwards an epidemic.

Such being the meaning I attach to the term epidemic in this special case of small-pox, I proceed to show the number of such epidemics at different periods of time, and, that I

(c) I must here acknowledge my obligations to my friend Dr. John Harley for the careful, but vain, search he has made after the word "flox." The word "flux," as he states, is always used in reference to discharges, and he shows by the following case cited from the "Rational Physitian's Library," that "small pocks and bloody flux" are found associated as in obs. 71 of that work. "A boy, five years old, being stricken sick of the small pocks, the third day was taken with a bloody flux, with a frequent desire of going to stool; he voided flegmatic and snotty excrements with great store of blood. The pocks were small, white, and flat." Dr. Harley expresses the opinion that the word "flox," used in connexion with small-pox, must refer to cases of this kind, which in olden times, if we are to judge by their comparative frequency now, must have been common. I could not find the word "flox" in the three volumes of the "Leechdoms."

(d) Heberden, after noting the "mistakes and misrepresentations" to which particular diseases are liable, states that even in the smaller divisions of the subject "the correspondence of one year, and of one week with another, is such as must convince every attentive observer that a considerable degree of credit is due to these reports."

may avoid all appearance of selection, I display the epidemics as they have occurred in periods of thirty and forty years, and in the three centuries to which my tables relate.

TABLE I.

Arrangement by Periods of Thirty Years.		*Arrangement by Periods of Forty Years.*	
1647-76 (flox and small-pox) ...	6	1647-86 (flox and small-pox) ...	9
1702-31	6	1702-41	5
1732-61	9	1742-81	17
1762-91	13	1801-31 (thirty years)	0
1801-30	0	1841-80	0
1841-70	0		

Arrangement by Centuries.

Seventeenth century (forty-eight years)	...	...	10
Eighteenth „ (one hundred „)	...	...	32
Nineteenth „ (seventy-two „)	...	...	0

The three sections of this table agree in displaying the present century as free from epidemics of small-pox, when the ratio of 100 to 1000 of all causes, or 10 per cent., is taken as the measure and definition of an epidemic. They also agree in representing such epidemics as of most frequent occurrence in the latter half of the eighteenth century. For when the figures are grouped by centuries, it is seen that the forty-eight years of the seventeenth century, when doubled so as to approximate to the number of years in the eighteenth, yield about twenty epidemics to thirty-two in the eighteenth century. The entire absence of epidemics in the nineteenth century, when 100 deaths per 1000, or 10 per cent., are taken as the mark and measure of an epidemic, is the salient and notable fact which my inquiries up to this point have established.

Lest, however, this selection of a particular ratio should be deemed arbitrary, and possibly misleading, I construct a table in which I display side by side the numbers of years in which the ratios exceed the several figures 50, 75, 100, and 150 per 1000.

TABLE II.

Ratios.	Centuries.		
	Seventeenth.	Eighteenth.	Nineteenth.
50 per 1000 and less than 75	11 (48 years)	22 (100 years)	10 (72 years)
75 „ „ 100	4 „	27 „	4 „
100 „ „ 150	10 „	29 „	0 „
150 and upwards	0 „	4 „	0 „
50 and upwards	25 „	62 „	14 „

These, too, are very striking figures. The eighteenth century again shows a marked excess of epidemics; for while it equals the seventeenth century, when the ratio of 50 and less than 75 is taken as the measure of an epidemic, it exceeds it more than fourfold when the epidemic standard is taken at 75 and less than 100. When the standard is fixed at 100 and less than 150, the figure for the eighteenth century for the same number of years exceeds that for the seventeenth as 29 exceeds 20, while for the higher standard of 150 and upwards it displays four instances, though in the seventeenth and nineteenth centuries no single year attains this highest standard. If we add all the figures of the three columns together, the sum of 62 is more than double the sum (25) for the seventeenth century, and (the seventy-two years of the nineteenth century being augmented by a third) the ratio for the nineteenth century proves to be more than a third of that for the eighteenth, and considerably less than that for the seventeenth.

II.—Of the Maxima and Minima, and Range of the Epidemics.

If now we again assume 100 deaths by small-pox in 1000 deaths from all causes as the measure of an epidemic, it is natural to inquire what are the highest and what the lowest figures attained in the several centuries. This is shown in the next table.

TABLE III.

Centuries.	Maxima.	Minima.	Range.
Seventeenth century (48 years) ...	124·40	2·98	121·42
Eighteenth „ (100 „) ...	183·94	15·32	168·62
Nineteenth „ (72 „) ...	98·37	0·56	97·81

In this table, again, the range of figures for the eighteenth century largely surpasses that for the seventeenth century, and still more considerably that for the nineteenth, in which century both the highest and the lowest figures present a striking contrast to those of the two earlier centuries. But the small figure 0·56, or barely 1 in 2000 deaths from all causes, does not fully represent the low rate of mortality from small-pox which took place in the year 1875. For the lowest figure (2·98) of the seventeenth century occurred in the year 1666, or that which followed the Great Plague, and coincided with the Great Fire. The immense mortality from the plague, the dispersion of a large fraction of the population, and the fire that destroyed so large a portion of the city, combined to reduce the possible victims by that disease, and the deaths from small-pox, to the low figure of 2·98 per 1000, the ratio of the previous year having fallen, under the influence of the first two causes, to the figure of 6·73. So that the ratio of 0·56 represents for the present century a minimum mortality altogether without precedent.

III.—Frequency of Epidemics.

Another question of interest, which the returns given in Table I. of the Appendix enable us to answer, is the frequency of the recurrence of epidemics of small-pox. If we still define an epidemic of that disease as an outbreak numbering 100 in 1000, or 10 per cent., we obtain the results embodied in the following table. If we count the several intervals between the epidemics both for the seventeenth and eighteenth centuries (for there have been no such epidemics in the nineteenth), we get the following figures:—

TABLE IV.

Length of interval.	Seventeenth century.	Eighteenth century.
	Number of intervals.	
1	2	12
2	1	6
3	1	4
4	1	1
5	1	2
6	1	0
7	0	0
8	1	0
9	—	1
Total intervals	8 years	26 years
„ length of same	30 „	59 „
Approximate average interval	4 „	2 „

From this table, then, it appears that, still reckoning the epidemic of small-pox at 100 in 1000, or 10 per cent., the intervals of freedom range from one to eight years in the seventeenth century, and from one to nine years in the eighteenth century, the number of intervals having been 8 in the seventeenth and 26 in the eighteenth; and the length of interval, or period of freedom, being a near approximation to four years in the seventeenth and two years in the eighteenth.

Here I pause for a moment to gather up the lessons taught by the three tables submitted up to this point. They teach us that while no epidemic of the standard assumed has taken place in the nineteenth century, such epidemics were of frequent occurrence in the seventeenth and still more frequent in the eighteenth centuries; that this disparity shows itself very decidedly in such epidemics as exceeded 150 per 1000; that the least ratio in any year of the eighteenth century did not fall nearly so low as in the century preceding and following; and that the intervals of freedom from epidemics was only half the length of those in the seventeenth century.

I may add that in three instances in the eighteenth century, but not once in the previous century, the epidemics exceeded one year in duration. The years in question were 1759 and 1760; 1762, 1763, 1764, and 1765; and 1774 and 1775. I append the figures for these three periods:—

1759 and 1760—132·42, 110·28.
1762, 1763, 1764, and 1765—104·19, 136·88, 102·66, 107·53.
1774 and 1775—188·70, 138·10.

One more comparison it occurs to me to make. The deaths from all causes in the seventeenth and eighteenth centuries present in many instances the same, or nearly the same, totals. When this happens I compare the deaths by small-

pox in the two centuries, with the results shown in the following table:—

TABLE V.

Deaths from all causes.		Deaths by small-pox.	
Seventeenth century.	Eighteenth century.	Seventeenth century.	Eighteenth century.
23,202	23,202	1,560	2,382
23,222	23,230	2,496	2,498
22,609	22,612	1,062	2,188
21,053	21,057	889	1,614
21,730	21,800	1,967	1,024
21,201	21,198	2,507	1,943
20,198	20,213	1,485	1,568
19,067	19,048	1,678	1,728
18,732	18,760	359	1,747
17,504	17,576	853	1,273
Totals 208,518	208,696	14,836	17,965
Aver. 20,851	20,869	1,483	1,795
Eighteenth century in excess of seventeenth		333	

These instances, which have been chosen from others on account of the near approximation of the figures in the two centuries, show a less average difference than does a collection of sixteen instances.

This larger number of cases gives an excess for the eighteenth century of 524 deaths by small-pox. It appears, then, that out of the same number of deaths from all causes occurring in the two centuries, those by small-pox form a larger increment in the eighteenth than in the seventeenth century.

I now take in hand the epidemic measles, which, as I have already stated, figures on the returns for the same long period of time as small-pox itself, and shares with it signs and symptoms easy to recognise, and not subject to any great amount of doubt or misapprehension.

IV.—NUMBERS OF EPIDEMICS OF MEASLES AT DIFFERENT PERIODS.

In tracing the column of figures which represents the deaths by measles year by year, we nowhere encounter the high figures which mark the epidemics of small-pox. The deaths by measles in no year reach 100, and once only the high level of 93. Where, in the columns of small-pox, 100 met the eye, such figures as 20 meet it in measles. Hence, for no other or better reason than that upon which I have acted in the case of small-pox, I now act in the case of measles, and assume 20 as the epidemic figure, with what results the following table will show:—

TABLE VI.

Arrangement by Periods of Thirty Years.		*Arrangement by Periods of Forty Years.*	
1647-76	2	1647-86	2
1701-30	0	1701-40	1
1731-60	3	1741-80	5
1761-90	5	1801-31 (thirty-one years)	27
1801-30	26	1841-80	24
1841-70	10		

Arrangement by Centuries.

Seventeenth century	forty-eight years)	2
Eighteenth "	(one hundred ")	9
Nineteenth "	(seventy-two ")	51

The figures in this table display a striking contrast with those of Table I. They show, it is true, more epidemics of measles in the eighteenth century, as of small-pox; but a further increase in the nineteenth century, in which epidemics of small-pox (100 per 1000 deaths being taken as the standard) wholly disappeared. But in the case of measles, as of small-pox, I will assume both lower and higher figures as measures of an epidemic, as is done in the table which follows:—

TABLE VII.

Ratios.	Centuries.		
	Seventeenth.	Eighteenth.	Nineteenth.
10 per 1000 and less than 15	3 (48 years)	9 (100 years)	2 (72 years)
15 " " 20	0 "	10 "	15 "
20 " " 25	0 "	4 "	17 "
25 and upwards	2 "	5 "	34 "
10 and upwards	5 "	28 "	68 "

These figures confirm and strengthen those of the preceding table. With the exception of the first line, which places the epidemic figure at 10 per 1000 and under 15, the rest are in harmony. Making allowance for the different number of years available for comparison in the three centuries, the deaths by measles show a progressive and very considerable increase; and if reduced to an equal standard of years, the figures for 10 per 1000 and upwards would approximate to 10, 28, and 90. Let us now see what we can glean from a statement of the highest and lowest figures, and the range of the figures, as shown in

TABLE VIII.

Centuries.	Maximum.	Minimum.	Range.
Seventeenth century	93·00	0·05	92·95
Eighteenth "	52·83	0·24	52·56
Nineteenth "	69·45	6·35	63·10

These figures teach us that while deaths by measles in the seventeenth century rose to a higher figure in one year of the forty-eight, and fell to a lower figure than in the subsequent centuries, the nineteenth century was marked by higher figures than the eighteenth, but not by figures falling so low as happened in either of the foregoing centuries.

The broad lesson to be learnt from this table is that deaths from measles, when compared with deaths from all causes, have reached a higher level in the nineteenth century than in the eighteenth. This, as it will have been seen, is the reverse of what has happened with small-pox.

What has been already said of the low level to which the deaths by small-pox fell in the years 1665 and 1666, is true also of measles. The deaths by measles were very few in those years, and doubtless for the same reasons.

There is another disease which may be fairly brought into comparison with small-pox and measles, as being, like them, easy to recognise, and, like them, contagious and epidemic, and respecting which, for many years, both of the eighteenth and nineteenth centuries, we find the annual returns of deaths in Marshall's tables. I mean whooping-cough. The first entry of deaths from this disease is found under the year 1776, and the last under 1831. The deaths from 1841 to 1881 inclusive are given in the annual summary of the Registrar-General. The summary of results will be found in the table which follows:—

TABLE IX.—*Deaths by Whooping-Cough* (1740 *to* 1881). *Number of Epidemics* (25 *per* 1000 *taken as an Epidemic*).

	Epidemics.
Eighteenth century (forty years)	4
Nineteenth " (")	63
From 1801 to 1831 (thirty-one years)	25
From 1841 to 1881 (forty-one ")	38

The figures in this table, like those relating to measles, show an increase in the ratio of deaths from 4 in the 1000 in the eighteenth century to 63 in the 1000 in the nineteenth, and from 25 per 1000 in the first thirty years of the nineteenth century, as compared with the forty years ending 1881. If we add a third to the thirty-one years, we bring the figure of deaths up to 33, which is less by 5 than the figure for the later period. It follows, therefore, that whooping-cough, like measles, and unlike small-pox, exhibits an increased number of epidemic outbreaks in the nineteenth century.

The figures which show the maxima and minima for the same periods of time harmonise with this the number of epidemics. This is shown in

TABLE X.

Centuries.	Maximum.	Minimum.	Range.
Eighteenth century	27·79	2·23	25·56
Nineteenth "	68·59	16·33	52·26

(*To be continued.*)

REMOVING THE SMELL OF TURPENTINE.—Sulphuric ether is said to have the property of modifying the very persistent and unpleasant odour of oil of turpentine mixtures. —*New York Med. Record*, August 26.

REMOVAL OF THE ENTIRE TONGUE BY THE CUTTING METHOD.

By FERDINAND A. PURCELL, M.D., M.Ch.,
Surgeon to the Cancer Hospital, Brompton.

HENRY P., an army pensioner, aged sixty-one, was admitted to the Cancer Hospital, June 2 last, suffering from an ulcerated and fœtid epithelioma of the tongue, occupying the right side, extending from the root to within two inches of the tip, and including the right anterior pillar of the fauces. The floor on the same side was implicated, and the indurated tissue extended into the left side of the tongue at its root; no glands perceptibly affected. The fauces and floor were inflamed, caused by the application of some strong muriatic acid, which had been applied to the ulcer when attending a dispensary. He opened his mouth with difficulty, and not to its full extent; was unable to protrude the tongue; the swallowing of saliva or of food was painful and difficult; he had wasted. He stated that he had been a hard smoker, having taken great pride in colouring cutty pipes, which he used to sell; no heredity of cancer; had no recollection of any irritation from the teeth; had lost one upper molar, remaining teeth are good. About seven months previously he first noticed a small pimple on the right side of his tongue, which came on without cause and gradually increased. On admission he was ordered soothing mouth-washes, to subdue the inflammation caused by the application of the muriatic acid; to have an aperient.

June 6.—I proceeded to remove the entire tongue through the mouth by the cutting method, as recommended by Mr. Whitehead and by Billroth. Considering that the ulcerated condition of the right side and floor might cause the structures on that side to be too friable to hold ligatures on any bleeding vessels, I determined to adopt Billroth's procedure—that of tying the lingual on the affected side—as a preliminary operation. The patient was put under ether, and I proceeded to ligature the right lingual, which I successfully accomplished, completing this stage by bringing the skin-flaps together by a continuous horse-hair suture.

The mouth was opened to its full extent with a gag held on the left side; I then passed a double silk ligature through the tongue an inch from its tip. I now divided all the attachments of the tongue to the jaw, as also the anterior pillars, with the scissors; I then cut the muscles of the tongue, feeling my way by a series of successive short snips of the scissors, until the entire tongue was separated, as far back as, and close up to, the epiglottis. I now passed a loop of silk, by means of a long needle, through the remains of the glosso-epiglottidean fold of mucous membrane, which I eventually left in. By gently pulling on this, the patient was able to breathe more easily, and it prevented the epiglottis falling backwards, or getting choked with blood. The parts were sponged; no hæmorrhage showed on the side on which the lingual was tied. Blood began to well up, and then spurted, at two points on the left side; these were secured in torsion-forceps, and tied with catgut. I then brushed over a very little perchloride of iron as a styptic. The parts were perfectly dry, and the patient was removed to bed.

The after-treatment consisted in feeding the patient for the first five days absolutely by nutritive enemata, frequently washing out the mouth with a weak solution of permanganate of potash, which seemed to satisfy thirst. The patient was forbidden to speak, and told to express all his wishes by signs or by writing on a slate. He was allowed to take milk-and-water on the sixth day after operation, on which day I removed the silk ligature that was passed through the glosso-epiglottidean fold, as also the continuous horse-hair suture in the incision made for tying the lingual artery. The incision had entirely united by first intention.

No secondary hæmorrhage whatever occurred, and the patient left the hospital on June 22, the sixteenth day after the operation. The floor of the mouth was in a state of healthy granulation; he could swallow fluids, as also semi-solid food, perfectly well, but was directed not to masticate solid food; his sense of taste was normal; he could speak fairly well, and was able to make himself perfectly well understood. There was no glandular swelling in the neighbourhood of the mouth, and no pain.

On July 26 the patient presented himself for inspection. The entire floor of the mouth was skinned over, and the parts looked healthy. He could speak plainly.

In 1879 I published a paper in the *Lancet* "On the Painless and Bloodless Method of Excising the whole Tongue by the Galvanic Écraseur," and this method I have followed up to the present time with uniform success and with every satisfaction. I, however, lost one patient, who sank from the effects of secondary hæmorrhage, which took place on the ninth day after operation.

After our late discussion at the London Medical Society I determined to try, at my next opportunity, Mr. Walter Whitehead's method. Mr. Whitehead stated in his paper, read at the International Medical Congress, London, 1881, that the only difference in the modes of procedure between himself and Billroth appeared to have been that Billroth made ligature of the linguals a preliminary operation, while he (Mr. Whitehead) left these arteries intact until divided during excision of the tongue. During the last few years Billroth has entirely abandoned the use of the écraseur on account of the enormous mortality, which he estimates at 61·5 per cent. The success of his operations by the cutting method amounts to 84·2 per cent.

Indeed, from the excellent results and low mortality in Mr. Whitehead's cases, I cannot but think that his method of removing the tongue is well worthy of adoption. His experience has induced him to say that the danger from hæmorrhage, when either the knife or scissors is used, is simply *nil*, as the arteries, should they require it (which is not always the case), are either twisted or tied.

In the table Mr. Whitehead published in 1881 he records twenty-eight cases, with only one death as the immediate result of the operation, and two other deaths after the operation, resulting from remote cause.

So far as my present experience enables me to form an opinion, I am in favour of this operation. I certainly found no difficulty in boldly removing the whole tongue through the mouth, and in this case I could not, with the écraseur, have removed the disease so completely. I see no object in dividing the lower jaw or cheek (Gant). Certainly, if the floor of the mouth or the glands below the jaw are involved, the excision of the tongue through the mouth can be first performed, and afterwards the removal of the glands and other structures by another incision below the jaw.

Manchester-square, W.

HOW TO COUNT A RAPID PULSE.—Under this heading Dr. Abbot describes (*New York Med. Record*, August 12) a method which he adopted for counting the heart's action during some experiments he performed with alcohol on birds. He found that he was unable to count by the usual mode when the contractions exceeded 240 per minute, whereas, by the method he now describes, he easily counted 280. "During a definite part of a minute, usually one-fourth, with a lead pencil dots were made upon a sheet of paper, *synchronous with the heart-beats*, as heard over the cardiac region. The dots were then counted. A pulse of *four hundred* could be taken in this way, provided each pulsation were distinct enough to be discriminated by the touch. The indistinctness of the separate pulsations alone fixes the limits to the use of this method, as the human hand is capable of making intelligently and with accuracy at the rate of 450 dots per minute, for thirty seconds, which rate is probably beyond not only that of the human heart, but also of the pulse of any of the lower animals available for experiment. I have had a sufficient experience with this method to know that it is of practical value, especially with children. . . . All movements, whether of the body or not, that can be seen, felt, or heard, can be thus counted up to 400 or 500 per minute, provided that they are sufficiently distinct to be discriminated."

ALCOHOL IN BURNS AND SCALDS.—Saturate a soft piece of fabric with alcohol, lay it over the burn, and then cover it with cotton or finely picked oakum. This is the most cleanly dressing that can be adopted. It may be thought that alcohol applied to a burn will produce more pain, but try it, and you will be agreeably surprised to find how quickly it will allay the pain. Disturb the dressing subsequently as little as possible, and wet it occasionally with alcohol.—*New York Med. Record*, August 26.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

COMPOUND COMMINUTED FRACTURE OF THE SKULL—RECOVERY.

(Under the care of Mr. GODLEE.

H. D., aged four years, fell from the bridge over the Regent's-park Canal on to the towing-path, alighting on his head, and was at once brought to University College Hospital, on July 30, 1882. He was found to have considerable bruising on the right side of the face, involving especially the right side of the forehead; his nose and the angle of the mouth had both sustained slight laceration. Near the frontal eminence there was a minute wound, about one-sixteenth of an inch in diameter, which was bleeding freely; and another similar wound existed about three inches higher up in the scalp. Around the lower wound much blood was extravasated into the tissues, and, on touching the part with the finger, it was found that for an area somewhat larger than a shilling the frontal bone gave no sense of resistance, but several loose fragments appeared to be grating together. The child had no serious brain-symptoms of any kind. The House-Surgeon slightly extended the lower wound, from which a small quantity of brain-matter escaped, and Mr. Godlee was sent for. He determined to do nothing except carefully to cleanse the head after shaving it, to wash all the surrounding parts, including the meatus externus and the eyelid, with one-to-twenty carbolic acid lotion, and to apply an antiseptic gauze dressing, which was very securely kept in position.

Next day the child was somewhat feverish, the temperature marking 103·4° at 7 p.m. The swelling was greater, both eyes being closed, and a small amount of thin pus, mixed with shreds of what appeared to be brain-matter (but on microscopical examination proved not to be so), escaped. He was a little irritable, perhaps, but otherwise his mental condition was unimpaired.

The sequel of the case may be shortly told. For a considerable time the discharge was, for so small a wound, somewhat copious, and of a thin, sero-purulent character; a little could generally be squeezed out of the wound on changing the dressing, but as the amount steadily though slowly diminished, Mr. Godlee did not think it wise to interfere. It was thus necessary to change the dressing almost daily, though sometimes two days were allowed to intervene. By August 12 no more could be squeezed out of the wound, but crackling over the depressed area was still felt. By the 25th neither wound was quite healed, but crackling was no longer perceptible; the amount of discharge from the lower wound, however, still made a mark on the dressing as large as a crown-piece, and soaked through about twelve layers of gauze. By September 4 the wounds had completely healed. A piece of boric lint was placed on them, and a gutta-percha shield fitted to the forehead for the sake of protection.

On September 19 the patient was brought to the hospital. It had been noticed some time previously that there was some convergent strabismus, and, although not much attention was paid to it, that he did not open the right eye completely. It was now evident that there was distinct ptosis as well as convergent strabismus, and the mother, when questioned, asserted that such had not been the case previously. In other respects the child was perfectly well.

Remarks.—There were two reasons for abstaining from any surgical interference in this case—first, because it is well known that children often recover from very severe injuries to the skull, and it was not thought likely that the soft and elastic bone of an infant would be fractured in such a way as to leave any sharp fragment which might serve mechanically as an irritant to the brain; and secondly, because it seemed doubtful whether the wound could be kept free from putrefaction, and if this had occurred whilst the cranial cavity was actually open it is not unlikely that a hernia cerebri might have resulted. The event seems to show that the line adopted was the right one. It is difficult to account for the paralytic symptoms; it may be suggested, however, that the ptosis may be of a spurious nature, resulting from some remaining swelling about the lids. The inability to move the lid is very obvious, and it is not very easy to understand how it can be brought about in this way, while it is pretty clear that the third nerve, as a whole, has not suffered. The sixth nerve, it is well known, is often affected by anything that causes slight pressure on the brain, its long course between the anterior surface of the pons and the body of the sphenoid serving, no doubt, to explain the phenomenon. In this case possibly the fracture may have reached further back than was thought, or some slight hæmorrhage extending towards the apex of the orbit may have interfered with the nerve as it enters this cavity.

JERSEY GENERAL HOSPITAL.

LARGE ANEURISM OF THE CAROTID—LIGATURE OF THE COMMON CAROTID—SUPPURATION OF THE SAC—ASPIRATION—RUPTURE INTO THE PHARYNX—RECOVERY.

(Under the care of Mr. CHAS. GODFRAY, M.R.C.S. Eng.)

[For these notes we are indebted to Mr. STANLEY BOYD, F.R.C.S. Eng.]

J. DE V., aged twenty-eight, was admitted on July 29, 1876. The history he gave was as follows:—During the month of February, 1876, he noticed a swelling on the right side of his neck, and becoming alarmed, he applied for relief to a woman living in St. Helier. For five weeks he continued under her care, the swelling steadily increasing. She treated him with "herb medicines," and gave him a plaster, which he wore for a month. No good resulting from these remedies, he next placed himself in the hands of a "charmer" residing at St. Ouen's, and every morning for seven weeks he drove nine miles into the country to see this man, who contented himself with simply touching the swelling. Finally, on July 29, he entered the General Hospital under the care of Mr. Charles Godfray.

At the time of admission the swelling was of large size, extending from between the angle of the jaw and the mastoid process to about an inch and a half above the sterno-clavicular articulation. The pulsation and bruit were plainly marked, and the aneurism showed a strong tendency to burst at the hinder part, where the skin was thinner than elsewhere, and of a claret colour. The larynx and trachea were pushed far over to the left side. Swallowing, even of liquids, which for some time had been attended with great difficulty, now became impossible. Large nodes on the tibiæ, first noticed shortly before Christmas, revealed a syphilitic taint.

On July 30, Mr. Godfray applied a silk ligature to the common carotid, close above the sterno-clavicular articulation, and considerable decrease immediately took place; but unfortunately the size of the neck was not taken until August 3, when it was seventeen inches at the widest part, the patient being a very spare man. The ligature came away on the twelfth day (August 11) after the operation.

The tumour decreased slowly but steadily until about August 27, when it began to increase rapidly, and in two or three days a fluid swelling had run upwards to the ramus of the jaw and forwards to the chin. Inability to swallow returned, and the larynx was again thrust over to the left side.

On the evening of the 30th violent hæmorrhage occurred. About a pint of blood seemed to have been lost, but as the bleeding stopped before the head nurse—who was in the next ward at the time—could reach the room, it was not noticed whether the blood came from the proximal or distal end; it was, however, of a dark colour. The swelling continued as large as ever; no pulsation or bruit could be detected in it. Any attempt to swallow, even the smallest quantity of fluid, occasioned violent coughing, which caused its return by mouth and nose.

On September 1 and 2 small injections of beef-tea were given, but they were retained for a short time only. On the afternoon of the 2nd, Mr. Godfray passed a small-sized stomach-tube with less difficulty than had been anticipated, and the patient was fed with beef-tea. On the same evening eggs, beaten up in milk were similarly given.

On the morning of the 3rd the swelling had not decreased in size, neither had it become more solid. It showed strong

signs of pointing at the hinder part. A needle, connected with an aspirator, was passed into it at this spot, and nine ounces of foul-smelling, dark-coloured blood were drawn off. The flaccid parts were kept in contact by strips of plaster. The patient felt much relieved by this operation, and on the following day he was able to swallow milk and eggs, mouthful by mouthful, but still with some difficulty. On the 4th and 5th the sac filled slightly with fluid from the surrounding parts.

On the evening of the 5th, after a fit of coughing, the sac burst into the pharynx, and a quantity of blood and mucus was coughed up, the sac being completely emptied. Great relief followed, and the larynx returned to the middle line. The patient now swallowed with much greater ease, the walls of the sac rapidly adhered, and he was discharged well on September 11.

September, 1882.—The patient is now in good health.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 30, 1882.

THE USE AND INFLUENCE OF HOSPITALS FOR INFECTIOUS DISEASES.

The first step taken by the Local Government Board, with the view of ascertaining the amount and the character of the hospital provision for infectious diseases made by sanitary authorities, was the issue by the Board in 1879 of a circular letter to all sanitary authorities in England and Wales, requesting information on the subject. The letter included queries as to the nature of any such accommodation in each sanitary district; as to the method by which it had been provided; as to the date since which it had been available; as to whether the accommodation was of a permanent or a temporary character; as to the separate isolation of two or more different infectious diseases; as to cost; and as to some other points of importance. The results of the inquiry showed that some sort of provision had been made by 296 out of the 1593 sanitary authorities in England and Wales; but it was also shown that in many instances the hospital provision reported was only such in name; that in some districts the accommodation was only available for one or more of the infectious fevers; and that in many the means of isolation, though professedly in readiness, had never been used. It was clear, therefore, that some more exact and detailed inquiry was needed, in order to obtain the information required for guidance of authorities who might wish to provide hospitals for infectious disease, and for the Local Government Board's own purposes; and the task of making such an inquiry was entrusted to Dr. Thorne Thorne.

The return made was of great use in indicating the districts that it would be most desirable to visit; and Dr. Thorne selected these as representative of classes where there had been failure, as well as those where success had been experienced in obtaining isolation; those where hospitals had been provided by the sanitary authorities themselves, and those where arrangements had been entered into with infirmaries and other institutions belonging to private bodies; those where the existing hospital had been used by one sanitary authority, and those where it had been provided by a combination of authorities; and those where permanent as well as those where temporary accommodation had been made. Altogether sixty-seven hospitals were visited; and the inquiry concerning them involved investigation as to the use, or professed use, of them by as many as 150 sanitary authorities. Dr. Thorne first notices the origin of the hospitals, and gives much interesting information on this point. Here and there, as at Cheltenham and Bradford, a munificent donation or bequest, supplemented by private subscriptions, has, within a recent date, led to the erection of hospitals well adapted to the purposes they were intended to serve. Some of the older and more imperfect hospitals were originally erected and maintained by public subscription, but have since been taken over by the sanitary authorities. In two instances, at Dover and at Ashford, the hospitals were each originally built and managed by a medical practitioner, who felt the necessity for such an institution, and saw no chance of the needed provision being made in any other way. But by far the greater number of hospitals visited were the outcome of panic, resulting from either the actual prevalence of some epidemic, or the anticipated invasion of some infectious disease, such as cholera or typhus. In point of number, however, small-pox far outweighed all other infectious diseases in having secured some sort of hospital provision. But Dr. Thorne shows very clearly that if a hospital is hurriedly built under the influence of a panic, it is often not ready for occupation until the immediate cause of its erection has passed by; it provides accommodation of a very indifferent sort; it fails, almost without exception, to meet the permanent requirements of the district, even when in amount it turns out to be more than the district needs, and thus the object of it as a sanitary defence is often attained in an imperfect manner and at a needlessly large cost.

With regard to the site of infectious hospitals, Dr. Thorne supplies very useful information and advice. He found that there are strong reasons why the site should be easily accessible to the population for whose benefit the hospital is provided. By far the greatest difficulty in the matter of distance has been found, as a rule, to lie with the relatives and friends of the patients, who assent much more readily to removal to a hospital if it be within such distance as to enable them, without much trouble or loss of time, to make frequent inquiry as to the patient's welfare. He has been led by his experience to form the opinion that a hospital should, if possible, be within the limits of the sanitary district for the purposes of which it is erected, and that

under any circumstances it should, to be reasonably available for its purposes, in the case of a town be not much more than two miles, and in the case of a rural district not more than four or five miles from the more populous portions of the district concerned; and the access to it should be direct and by well-known roads. In selecting a site, special regard should be had to reasonable seclusion of the hospital buildings, ample space, and the possible need for future permanent extension of the hospital; further, the site should be moderately elevated, on a gentle slope, and on a dry soil; and the opposite side windows of the ward-pavilions should as nearly as possible respectively face somewhat to the south of east and to the north of west. The site should be enclosed by a substantial wall or close fence, at least six feet six inches high, to prevent any communication between persons in the hospital and those outside.

As to construction, the more efficient hospitals have an administrative block: at least four wards, in two opposite pairs, in which patients of both sexes, suffering from two different infectious fevers, can be simultaneously treated; and certain necessary outbuildings, such as laundry, mortuary, etc. The administrative block is nearly always so constructed as to be in excess of the requirements of the permanent ward-buildings, so as to be equal, without enlargement, to the requirements of any extension, permanent or temporary, of the ward accommodation that future circumstances may call for. The block is always either completely detached from the ward-pavilions, or communicates with them by a passage, open in part or wholly at the sides. As to building materials, the use of iron or wood for the ward-pavilions has been unsatisfactory. It has been found extremely difficult to keep wards constructed of such materials either sufficiently warm in winter or sufficiently cool in summer; and Dr. Thorne is sure that, if so constructed as to overcome these difficulties, their original cost would nearly equal, or even exceed, that incurred in the erection of ordinary brick buildings, while the expense of keeping them in proper repair would be unquestionably greater.

By far the majority of the hospitals visited had all the ward accommodation on the ground floor, and this arrangement is clearly the most convenient for administrative purposes. But where a site was necessarily limited, there was an advantage in the hospital buildings being of two storeys, and having a belt of unoccupied land around them. Where this latter condition has been complied with, and where the wards on both floors were well ventilated and well administered, Dr. Thorne was not able to learn of any experience tending to show that the two-storeys arrangement had in any way acted prejudicially. But any such overcrowding of buildings or of patients on a site as can hinder or interfere with the purity of the air entering the ward windows must be carefully avoided; and in the most efficient hospitals visited the number of patients has not exceeded twenty per acre. In all efficient hospitals of recent date which have been provided for the isolation and treatment of cases of different infectious fevers, the buildings are so constructed that patients suffering from each separate disease may be treated in a separate building, having no enclosed means of communication with any other hospital building; and this result is, as a rule, obtained by the construction of pavilions, standing at a proper distance from each other, and from the administrative block. But in the case of a small-pox pavilion, Dr. Thorne is of opinion that the administrative departments in it should be such as to reduce communication with the administrative block to a minimum; and especially that it should have in connexion with it sleeping apartments for the necessary nursing staff. Dr. Thorne goes very fully and minutely into the construction of ward-pavilions; dealing with questions of materials, window space, floor space, cubic capacity per bed, ventilation, warming, drainage, etc. As regards window surface, he is of opinion that, having regard to cheerfulness, to adequate means of lighting and ventilation, and also to the maintenance of an equable and sufficient ward-temperature, the amount of window surface to cubic space should not vary much beyond the limits of one square foot to from sixty to eighty cubic feet, the proportion of about one square foot to every seventy cubic feet being the most advantageous. As to cost of construction, Dr. Thorne found great difficulty, owing to the numerous sources of fallacy, in grouping together the cost of any number of hospitals for the purpose of comparison: but he gives a table showing, among other things, the cost per bed of eleven hospitals of modern construction, and well constructed of permanent material.

Dr. Thorne considers that, as a general rule, the adaptation of existing buildings to the purposes of an infectious hospital is a mistake. The necessary alterations and additions, if thoroughly and efficiently carried out, are very expensive, and, at the very best, such buildings can only be made to serve, and that not perfectly, the more prominent needs of districts containing small populations. He deals at length with the question of the advisability of cases of infectious diseases being received into general hospitals at the cost of the sanitary hospitals; and strongly deprecates any such arrangement. He refers to the case of the Children's Hospital at Pendlebury, to which the Manchester Corporation send certain cases of infectious diseases. In this instance the "fever ward" constitutes a separate pavilion of admirable construction, but it is administered from an administrative block common to the whole Hospital, and its communication with the other pavilions by corridors is unbroken: and, from the frequent occurrence of scarlet fever in the general wards of the Hospital, Dr. Thorne felt bound to conclude that even this instance showed in a forcible manner the necessity for a complete severance between those portions of a general hospital into which a number of cases of infectious disease are admitted, and the other hospital buildings. Where small-pox has been the infectious disease to be accommodated, he did not find that even a detached building sufficed to prevent the spread of the disease to other parts of a hospital where the administration, laundry, recreation-ground, etc., were common to the two sets of buildings.

Tents have, in several instances, been used as hospitals for infectious diseases, and have been useful in the extreme. They have been found capable of resisting rain, wind, and cold to a degree that was not anticipated; but, in order that they should do this, they must be well constructed, and must in every case have strong double walls and roofs. The construction of some permanent building, however, should in no case be deferred with the idea that in the event of some future emergency hospital-tents can at a moment's notice be secured; and when the employment of tents is in contemplation, a proper site for them should always be available beforehand.

Almost every degree of success and of failure in securing isolation has, Dr. Thorne says, been met with; and he points to important lessons to be learnt from the experience of sanitary authorities in this respect. Failure to secure isolation is to be explained in most cases by delay in the erection of hospitals, by reference to ill-constructed, ill-devised, and ill-looking hospitals; but, with one single and explainable exception, "no hospital adapted to, and kept in readiness for, the reception of the sick was found, which had not done some good in staying the spread of infection." Several other points of importance are treated of in Dr. Thorne's very valuable and instructive report, but we must defer notice of them to a future opportunity.

THE CLASSIFICATION OF MEDICAL LITERATURE.

One of the most interesting features of the International Medical Congress of 1881 was the address given by Dr. Billings on "Our Medical Literature." The aspect of his subject with which Dr. Billings occupied himself was, of necessity, the external. The librarian, the cataloguer, cannot possibly read all the books with which he has to do, or judge of their merit, and consequently he must, in dealing with them, have regard to the peculiarities which are at once visible, such as the size, the title, and the like. The true classification, if it could be made, would be one based not on the outside of a book, but on its contents; one taking note not only of the nominal subject of the work, but of the way in which that subject is dealt with. It is scarcely possible that such a classification could ever be properly made, except of books relating to some very narrowly defined topic, because it would be necessary that the compiler should himself have studied each work before assigning to it its place. It may, nevertheless, be not without instruction to consider the principles on which such a classification might be founded. In doing so we will look only at medicine and surgery, dismissing from our view the literature which relates to fundamental or ancillary branches of science, such as anatomy and physiology, botany, chemistry, etc.

Looking, then, broadly at the medical and surgical literature of the day, we find that the various papers and books may be divided into two classes—the pathological and the therapeutic—those which aim at increasing our knowledge of disease, and those which are intended to improve our means of curing it. "Scientific" and "practical" are words which, to the minds of many, will convey much the same meaning, but most erroneously; for pathological research is eminently of practical utility, and good therapeutic work is as scientific in its method as any other. The pathological branch of labour is the one which our younger men chiefly pursue. The literature devoted to it is much less voluminous than that which deals with therapeutics; but, if we compare individual papers, is for the most part much superior—more accurate in its correspondence with facts, more scientific in its methods, higher in its aims, and more useful in its results. So low is the estimation in which the average therapeutic literature is held, that Dr. Billings, in the address to which we have referred, depicted the "scientific swell" as "thinking it bad style to be practical."

The literature of therapeutics is enormous in its bulk. But it consists for the most part of mere trash, inaccurate as to facts, unscientific in method, and absolutely useless. Good therapeutic papers are few and far between. But such, when they do appear, are of inestimable value. A *good* paper on a therapeutic question—that is, something which really teaches medical men a better way to cure disease—is the highest achievement of medical literature, a thing for which we cannot be too grateful. Beside such work, the contributions of the pathologist, useful as they are, appear insignificant. They, the lesser, do but prepare the way for the greater, the therapeutic.

The reasons for this state of things are easy to see. Pathological problems are easier of solution, because they present fewer fallacies, than therapeutic questions. They are mostly elucidated, in Britain at least, by the younger men—those who have the largest amount of time and the greatest zeal. Young men who want to do work, which is good of its kind, are obliged to take to pathology, because they have not the opportunity of doing clinical work. A young physician or surgeon, starting as a consultant in London, has at the beginning no private practice, and if he have a hospital appointment, his clinical duties are at first confined to seeing out-patients in numbers so great as to demand a rapidity putting scientific observation or record quite out of the question. Hence the young worker, with his time unoccupied, and his reputation to make, must begin in the dead-house, the histological laboratory, and the library. Whether this state of things is good we will not discuss.

Good therapeutic work is, as we have said, the highest outcome of medical literature. It requires large experience, to say nothing of other qualifications. Therapeutic inferences bristle with fallacies, and the widest knowledge and the greatest caution and acumen are needed to eliminate them. Hence such work only seldom appears. But its very excellence and value on the one hand, and the large reward which it brings on the other, stimulate the production of an abundant crop of spurious imitations belonging to the same class of literature, but more or less worthless in quality. Hosts of enthusiasts, eager to do good to their fellows, but deficient in knowledge, in exactness of observation, or in reasoning power, spoil paper with recommendations of treatment after which they have seen patients get well, but which, for aught they show, may have been in reality either superfluous or hurtful. But there are, unfortunately, others, few in number we are glad to believe, who, wishful only of the pecuniary reward which comes to the man who can heal the sick, publish accounts of so-called successful cases in which either disease, or cure, or both, simply exist in the perverted vision of a willing imagination.

When we come to examine each kind of literature a little more closely, we find each of them consists partly of records of observed facts, partly of compilations from medical literature, partly of essays containing reasoning, and speculation based upon observed facts. Records of observation may be divided into two classes—those of which the interest consists in the rarity of the condition observed, and those whose value lies in a special completeness and exactness of observation of every-day phenomena. Both are alike useful, and only differ in this, that in the former case the reader is tolerant of faults, and, unless the account be very defective indeed, grateful to the writer for having acquainted him, even imperfectly, with that which he is unlikely ever himself to see. In the latter case, when the thing described is common, the only excuse for recording it lies in the exceptional character of the account given. A slovenly description of a common thing is a disappointment and a weariness to those who read it; but there is scarcely any case of disease of which exact, detailed, and complete notes are without interest. Such publications are rarer than they should be, considering that work of this kind can be done by anyone who will take the necessary trouble: but they are of very great utility, for reading a well-reported case is the next best thing to seeing one.

The task of compilation is obviously one which requires, by itself, little beyond industry. There are diseases which are so rare that one individual cannot expect to see enough cases to guide him to sound conclusions; and therefore, if he wishes to obtain correct information on the subject, he can only do it by collating the published experience of others. Work of this kind is tedious and laborious. Its chief requirements are enough critical faculty to detect and weed out accounts so vague as to leave openings for fallacy, and, as we have already said, industry. The worker in this direction, even though his pains may seem barren of result, may console himself with the reflection that his work, if thoroughly and carefully done, must always be consulted, and may be of great help to future workers who may approach the subject with the light of more exhaustive research.

The last division we would make is that of papers embodying argument and speculation. Between these and the humble but laborious productions of which we have

just been speaking there exists a relation something like that between pathological and therapeutical literature. Mere narratives of cases, or compilations, cannot approach in brilliancy monographs in which these particular facts are considered in their bearings upon what is already known, are illumined with light from all quarters, and made to yield new knowledge of disease in general. To reason and speculate rightly is very difficult, and requires the highest mental powers and the fullest information. But to advance hypotheses and to invent arguments is the easiest thing in the world. Just as the inestimable value of therapeutic discoveries provokes quantities of worthless imitations, so there are many who will not be content, or will not take the trouble, simply to record observations, or search through literature, but will theorise upon the slenderest foundation, or without basis at all, through many weary pages.

The moral of these brief remarks is this: that the most ambitious work is not always the most successful. Pathological induction and therapeutic discovery are most difficult, require the largest knowledge and widest experience; and he who, without these qualifications, begins by attempting work of this kind, deserves to fail. But the humbler kinds of work, the exact and full recording of cases, the search through literature, the laborious dissection in the post-mortem room,—these are kinds of work within the capacity of anyone who will take enough trouble, and the most brilliant discoveries are built upon this foundation. A young man cannot be a discoverer at once; let him begin by being a patient observer, reader, and recorder. If he will set himself to this, discoveries, both pathological and therapeutical, will come to him; he will not have to seek them.

THE ENGLISH REGISTRAR-GENERAL'S RETURN, JUNE QUARTER, 1882.

THE Quarterly Return of the Registrar-General for the second three months of the present year records that during this period the number of births registered in England and Wales was 227,429, showing an increase of 1962 upon the number returned in the corresponding quarter of last year. The annual birth-rate was equal to 34·3 per 1000 of the estimated population; this rate was 1·5 below the average rate in the ten preceding corresponding quarters, and was lower than the rate recorded in the second quarter of any year since 1869, when it was 34·1. The rate did not exceed 28·6 and 28·9 in Herefordshire and Cambridgeshire, whereas it ranged upwards in the other counties to 39·2 in Staffordshire and 41·9 in Durham. The *natural* increase in the population of England and Wales, or the excess of births over deaths, which had been 107,554 and 104,642 in the June quarters of 1880 and 1881, did not exceed 102,351 in the corresponding period of this year. During the period under notice 125,078 deaths were registered in England and Wales, and were equal to an annual rate of 19·0 per 1000 of the estimated population in the middle of the year. This death-rate, although showing an increase of 0·4 upon the unprecedentedly low death-rate that prevailed in the corresponding quarter of last year, was 1·6 below the average rate in the second quarters of the ten years 1872-81. The death-rates in the June quarters of 1880-81-82 were all considerably lower than any that had previously been recorded since civil registration was established in 1837. The rate in the several English counties ranged from 15·2 and 15·8 in Hertfordshire and Berkshire to 20·7 in Monmouthshire, 21·0 in Durham, and 22·7 in Lancashire. Compared with the rates that prevailed in the second quarter of 1881, those last quarter showed a considerable decline in the South-Western counties and in Wales; whereas a marked increase occurred in Nottinghamshire, Lancashire, Durham, and Monmouthshire. In equal numbers living, the deaths were 113 of males to 100 of females. The difference between the urban and rural mortality was exemplified by the death-rate of the former having been 20·2, and of the latter 17·2 per 1000. These rates were respectively 1·4 and 1·9 below the average rates in the ten preceding corresponding quarters. Compared with the exceptionally low rates in the corresponding quarter of 1881, the urban rate showed an increase, while the rural rate had further declined. The 125,078 deaths of the quarter under notice, when tabulated for the different periods of life, showed 28,135 of infants under one year of age, 66,069 of children and adults aged between one and sixty years, and 30,874 of persons aged upwards of sixty years. The total number of deaths referred to the zymotic class of diseases during the June quarter was 16,109, corresponding to an annual rate of 2·45 per 1000, against an average rate of 2·50 for the ten preceding second quarters. Whooping-cough proved the most fatal, being responsible for no less than 4359 lives, and small-pox was at the bottom of the list with only 372 victims; of these latter 128 were registered in London and its Outer Ring, whilst the most noticeable outbreaks that occurred in the provinces caused 10 deaths in Wednesbury, 6 in Tipton, 10 in Lincoln, 11 in Rochdale, and 5 in Gateshead. The Return for this quarter contains, as usual, the statistics of mortality for forty-six of the principal English health-resorts, and these contrast favourably with those for the whole of England and Wales, the mean annual death-rate having been 16·8, and the zymotic rate 1·72. It is but just, the Return adds, to note that the death-rates of these health-resorts are doubtless in some degree higher than they would otherwise be, owing to the very fact of their being health-resorts—that is to say, places to which persons in weak health flock in considerable numbers, in the hope of finding benefit. This, however, would of course affect the general death-rate much more than that from zymotic diseases.

THE WEEK

TOPICS OF THE DAY.

On the 20th inst. the twenty-fifth congress of the National Association for the Promotion of Social Science was opened at Nottingham, under the presidency of Mr. G. W. Hastings, M.P. In spite of somewhat unfavourable weather, the attendance may be said to have been up to the average. In the Health Section, to which our attention is more immediately directed, the first question considered was, How does the employment of mothers in mills and manufactories influence infant mortality; and ought any—and, if so, what—restrictions be placed on such employment? The discussion of this subject resulted in the following resolution:—"This Section, having carefully considered the question of the employment of mothers in mills and manufactories, is of opinion that, in the absence of more precise and accurate statistical information on the subject, it is inexpedient that any special restriction be placed by statute on such employment." Dr. Drysdale, Senior Physician to the Metropolitan Free Hospital, next read a paper on "The Spread of Pulmonary Consumption," in which he endeavoured to show that the disease was rarely due to contagion—a fact fully established by the records of the Brompton Hospital,—and that it was due in a great measure to bad or septic air and to damp. Therefore, when hygiene should arrive at its grand mission of assuring ample food to all members of civilised states, in addition to dry and well-ventilated dwellings, consumption would rapidly diminish in frequency, just as zymotic diseases had done. Another important question engaging the attention of this section was, "What reforms

are desirable in the administration of public hospitals?" After much discussion, the following resolution was agreed to:—"That this department, deeply convinced of the necessity of reform in the administration of metropolitan hospitals and other institutions for the medical treatment of the sick, requests the Council to continue their exertions to obtain the appointment of a Royal Commission, with the view to obtain reliable data upon which reforms should be based, and make such recommendations as may appear desirable."

We are often compelled to record the proceedings of meetings organised to protest against the Contagious Diseases Acts, and frequently we have to point out how little the assemblies really know of the question, beyond its sentimental aspect. We therefore very gladly place in the hands of the profession the recorded experience on the subject of two such large garrison towns as Portsmouth and Plymouth. From these towns two memorials have recently been addressed to the Lords Commissioners of the Admiralty, giving the opinion of several clergymen, magistrates, members of the Town Councils, medical practitioners, and other residents, as to the working and result of this particular piece of legislation. The memorials were forwarded for the information of the Committee of the House of Commons on the subject, and are published in the form of a Parliamentary paper. The memorialists of Portsmouth say—"We consider that the Acts have been most judiciously and considerately carried out by those to whom their administration has been entrusted, and that no just cause of complaint can be brought against them. We feel assured that the operation of the Acts has been most beneficial in lessening the number of brothels and prostitutes, in improving the appearance and behaviour of the women, and so freeing our town from the sad scenes of evil and disorder with which we were once only too familiar; in checking the progress, as well as mitigating the virulence, of disease; and, most especially, in affording the women an opportunity of being reclaimed from their sinful lives. And we deprecate, therefore, even any alteration of the Acts, as tending to diminish these benefits, both to the women themselves and to the town." And the memorial from Plymouth, Stonehouse, and Devonport states—"We are decidedly of opinion that, both from a physical and moral point of view, their action has been most beneficial. We believe that, although, if extended, their usefulness would soon be greatly increased and more universally recognised, they have already been the means of relieving a vast amount of physical suffering, while they have opened the road to reformation to many fallen women, who, had it not been for the existence of these Acts, would never have had an opportunity of returning to a respectable course of life. We cannot too strongly express our opinion that the repeal of these Acts would be a great misfortune to this district, and to any other community where they exist at present." The Mayors and Recorders of Portsmouth and Plymouth have signed these memorials, and the other signatures appear to be those of the most influential inhabitants.

Dr. W. Corner, Medical Officer of Health for the Mile-end-road District, has recently addressed a letter to the press, asking that the record of rates of mortality for some weeks past in the Central-Eastern Metropolitan District of Mile-end Old Town may be made public, and remarking that this favourable death-rate is by no means unusual in the district. During the six weeks ending September 16 the average annual rates of mortality were respectively 15·6, 16·05, 18·32, 21·27, 16·07, and 12·29; average 16·6 per 1000 for the population of 110,000. There are two registration divisions in the hamlet—Dr. Corner explains—the Eastern and the Western; the latter comprises a population of 40,000, and during the six weeks the average annual rate of mortality was 12·35 per 1000 of population, which was probably less than that of the most favoured urban district throughout England. This division, moreover, embraces some of the oldest and most crowded portions of the hamlet, and Dr. Corner has made the foregoing facts public, in behalf of the material interests and welfare of the district, and to convince those who have a wrong impression as to its salubrity, and who may be contemplating a removal to more attractive, but at the same time certainly more dangerous, suburban or rural residences. It must be conceded that this report, and that recently published by Dr. Sedgwick Saunders, contain convincing proof of the healthiness (at least, at the present time) of the City and the eastern portion of the metropolis.

A case which recently came before Mr. Bridge, at the Southwark Police-court, is an apt illustration of the manner in which parochial authorities endeavour to evade expense, even though the health of the community be at stake. A respectable working-man applied for assistance to have his wife, who had been attacked with small-pox, removed to the small-pox hospital, as he lodged in one room with his two children, and there was no possibility of isolating the patient, but he was unable to pay for his wife's removal. The magistrate instructed him to apply to the relieving officer, who was bound to remove the patient, and directed the warrant officer of the Court to attend to the case. The next day the unfortunate man appeared again, to state that the relieving officer refused to assist him, as he had employed a private doctor to see his wife, and was therefore not a pauper. The man added that his wife was seriously ill, and the delay in removing her increased the danger of spreading small-pox to the other inmates of the house, if not throughout the district. The warrant officer explained that the relieving officer would not attend to the case, as the female was not a pauper, and he had referred him to the sanitary authorities at the Vestry Hall. The sanitary inspector there, however, told him that it was the duty of the relieving officer to remove the patient. The sanitary officer was in attendance, and submitted to Mr. Bridge that the Vestry had no funds to meet the expense of removing patients to the small-pox hospital, the cost being £4 4s., and he maintained that it was the duty of the relieving officer to remove poor persons. The relieving officer was next heard, and persisted in refusing to interfere in the case; the patient, he contended, was not a pauper, consequently the duty of removing her devolved upon the sanitary authority. The magistrate very pertinently observed that it was monstrous that parochial authorities should in such a way refuse to protect the public, by the isolation of the patient, from the spread of the disease. But his arguments were of no avail; and in the end, he, acting the part of *deus ex machinâ*, ordered the necessary funds to be advanced to the sanitary officer from the poor-box, to enable him to at once remove the patient. But this would certainly appear to be a proper case to bring under the notice of the Local Government Board. Small-pox is not likely to be kept under control in the metropolis if, when the poor themselves are willing to be conveyed to hospital for treatment, parish officials quarrel as to responsibility, instead of promptly proceeding to isolate the patient.

We last week referred to some of the unwholesome doings in connexion with the manufacture of German sausages in London. Since that date, the head of the firm complained of—Charles Shaw, of Ford-road, North Bow—was summoned at the Worship-street Police-court for depositing, or causing to be deposited, on his premises, a quantity of horseflesh for the purpose of being prepared for sale, and intended for

human food, the said horseflesh being unwholesome and unfit for the food of man. A veterinary surgeon deposed that the pieces of meat submitted for his examination were horseflesh, and that one piece particularly was bad, being decomposed, and evidently part of a horse that had died and not been slaughtered. Dr. Talbot, Medical Officer of Health to the Poplar Board of Works, had also seen the five pieces of meat in question; they were all, in his opinion, decidedly unfit for human food, and he had no doubt they were all horseflesh. The defence was that the meat was not horseflesh, and that the piece more especially complained of would not have been passed by the man at the machine when presented for cutting-up. The magistrate, however, felt no doubt whatever that the meat was horseflesh, and not fresh. There could be no doubt, he held, from the evidence of Dr. Talbot, that the whole was decomposed, though some more so than the rest. He inflicted the full penalty of £20 and costs, or two months' imprisonment. The fine was immediately paid, and it is to be regretted that this option was accorded the defendant.

A very animated discussion was recently held by the Hawarden Board of Guardians on the water-supply of the district, which, as we stated last week, had been condemned by the Local Government Board Inspector. Mr. Bateman, engineer, appeared to propound a scheme for collecting water in a reservoir, and distributing it over the district through the agency of a private company. This scheme the guardians present warmly supported, as relieving the rates, and although the chairman expressed a wish that the work should be carried out by the Rural Sanitary Authority, the scheme propounded was eventually adopted.

COLOUR-BLINDNESS.

Our contemporary *Nature* states that a series of researches having been undertaken by several Russian physicians as to colour-blindness, Dr. Kolbe has just published the results in the Russian paper *Vrach* (the *Physician*). Out of 10,828 railway servants examined, 251 were colour-blind, and 32 had an imperfect capacity for distinguishing colours. The average percentage of the colour-blind would thus be 2·6; but the five doctors who made the investigations arrived at very different percentages, namely, from 0·85 to 5 per cent. Three other doctors made experiments on sailors and naval pupils, and found a much higher percentage—6·05 per cent. of colour-blind, and 8·5 with imperfect colour-vision. As in other investigations, it was found that the percentage of women subject to colour-blindness is much smaller than that of men. Dr. Kolbe, who had experimented on both men and women, discovered among the men 2·5 per cent. of colour-blind, and 7·5 with imperfect colour-vision, whilst among women he found only 0·16 per cent. of colour-blind, and 3 per cent. with imperfect colour-vision.

THE PARIS WEEKLY RETURN.

The number of deaths for the thirty-seventh week of 1882, terminating September 14, was 991 (550 males and 441 females), and among these there were from typhoid fever 75, small-pox 10, measles 5, scarlatina 6, pertussis 2, diphtheria and croup 27, erysipelas 5, and puerperal infections 8. There were also 43 from acute and tubercular meningitis, 171 from phthisis, 8 from acute bronchitis, 47 from pneumonia, 149 from infantile athrepsia (63 of the infants having been wholly or partially suckled), and 44 violent deaths (36 males and 8 females). The number of deaths is below the mean number of the four preceding weeks. There is again an increase of the number for typhoid fever from 63 to 75, and for small-pox from 5 to 10. The number of admissions for typhoid fever has diminished from 197 to 175, and for diphtheria from 21 to 16. The admissions for small-pox have increased from 8 to 22. Notwithstanding the greater number of deaths from typhoid fever this week, the disease would seem to be on the decline, the number of admissions during the last five weeks having continued to diminish, viz., 338, 251, 251, 197, 175. The alarm which has taken place as to cholera having invaded Paris is quite groundless, not a single death from this cause having occurred. The births for the week amounted to 1154, viz., 575 males (419 legitimate and 156 illegitimate) and 579 females (437 legitimate and 152 illegitimate): 82 infants were either born dead or died within twenty-four hours, viz., 52 males (36 legitimate and 16 illegitimate) and 30 females (22 legitimate and 8 illegitimate).

BACTERIA OF VENEREAL DISEASES.

Dr. Leistikow (*Deutsche Med. Zeitung*, No. 36) was unable to find any specific bacteria in the hard or soft sores, but was successful in the case of gonorrhœa. It is affirmed that a specific can be distinguished from a simple urethral discharge by the aid of the microscope. The microbes are only sparingly present in the stage of acute inflammation with profuse thick pus; their numbers are greater in the thin milky discharge of chronic gonorrhœa. They were discovered also in a case more than a year old; this is held to demonstrate the danger of infection at that date. Birch-Hirschfeld, like Klebs and Aufrecht, was able to find bacteria in syphilitic new formations in the brain, lungs, liver, stomach, and bowels; they were most abundant at the limit of the granulation tissue. Fuchsin was the dye used. Condylomata, hard chancres, and a papilla from a papular syphilide were taken fresh and examined for the sake of comparison. Microzymes were richly present in the cells of the rete Malpighii and in the connective tissue of the papilloma. Nothing was made out of the blood. The individual bacterium is a very short (*a*, one micromillimetre) and relatively thick rod, with the ends rounded off; in some preparations a spindle-shaped group was formed of rods three to five times longer, lying parallel to one another. Besides these existing free in the tissues, others (of the smaller sort) were seen *in* the cells of the granulation tissue.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

The recent discussion on the compulsory notification of infectious disease at Nottingham has not produced any new arguments either for or against it. The doctrine that compulsory notification would be an interference with the liberty of the subject is not one that requires serious consideration at our hands; nor need we pay any attention to the opinion of a speaker who commenced his remarks by basing his opposition to the scheme on the ground that, so far from preventing the spread of these diseases, it would tend to sow them broadcast. In the absence, then, of any stronger arguments against it, we are in favour of compulsory notification; but having arrived at this point, we think difficulties arise which evidently have not been foreseen by some of the speakers—Mr. Michael, for example. We are convinced that compulsory notification can never completely fulfil the purpose for which it is advocated and intended, unless along with it compulsory removal also becomes law. Where would be the use of notifying to the medical officer of health the existence of a case of typhus or small-pox, if he has not full powers to do whatever he deems best for preventing the spread of the disorder? Several speakers evidently had not contemplated this, but until the public clearly recognises that the one cannot be fully useful without the other, we think there is but little to be done in the matter. A good many rather hard things

have been said against some members of the medical profession for opposing the suggestion to make the medical attendant responsible for the conveying the notification to the proper quarter. We are certainly inclined to share the views of those who have expressed opinions to this effect; not that we would uphold the arguments of those who talk about violating the secrets of their patient, or of those who would foresee the conversion of the medical man into a detective. But we hold that, after all, it is incumbent on the proposers of the scheme to show good reason why the medical man should be called upon to perform this duty. What grounds, we would ask, has Mr. Hastings got for his assumption that the registration would be done in a slipshod, slovenly, and loose manner if not done by the medical man? One speaker suggested that the doctor ought to give the information, because he was the first to become aware of the existence of the infectious disease. Arguing on this principle, it would be the duty of the accoucheur to register the birth of an infant, because he was the first to be aware of its existence. Whilst, therefore, we fully admit that the notification of infectious diseases ought to, and must ere long, become the law of the country, we fail to see that any valid argument has yet been brought forward to show cause why this duty must be imposed upon the medical attendant.

THE DEAF AND DUMB IN PRUSSIA.

THE *Berlin. Klin. Wochenschrift*, August 14, furnishes the following figures derived from the census returns of 1880:—The entire number of deaf and dumb enumerated was 27,794 (10·2 per 10,000 inhabitants), viz., 15,168 males (11·3) and 12,626 females (9·1). In 1871 there were 24,315 deaf and dumb (9·9 per 10,000), viz., 13,118 males (10·8), and 11,197 females (9·0). In the interval of the two censuses the deaf and dumb have increased at the rate of 18 per cent., while the population has only increased 10·6 per cent. Of the deaf and dumb between the ages of five and twenty, 22 per cent. were returned as being instructed in forty-five public establishments; and besides these there are so many under private instruction that the education of those suffering from this calamity may be considered as sufficiently provided for. The differences in the proportions of deaf and dumb observed in different religious persuasions are remarkable. Thus, while among 10,000 Evangelicals 9·89 were deaf and dumb, and 10·39 among the Catholics, the Jews furnished 14·38 per 10,000, and the followers of other forms of belief only 7·27. So many of the cases being hereditary, the influence of marriage among near relations, as practised by the Israelites, may in part explain the frequency of the affection among them. Among the deaf and dumb themselves, only 0·8 per cent. of the men and 0·6 per cent. of the women were returned as married, widowed, or divorced.

THE METROPOLITAN WATER-SUPPLY FOR AUGUST LAST.

THE report of the Metropolitan Water Examiners for the month of August last may again be pronounced to be satisfactory. In his report on the condition of the water previous to filtration, Colonel Bolton remarks that the state of the water in the river Thames at Hampton, Molesey, and Sunbury was good in quality during the whole of the month; and a similar verdict has to be recorded with reference to the water in the river Lea. On turning to the August report of Messrs. Crookes, Odling, and Tidy, we find it stated that "with regard to the general state of the water, in respect of its freedom from turbidity, we would draw special attention to the circumstance that out of 1074 samples of water examined by us during the six months ending August 31 last, and despite the frequent storms of July and August, twenty samples only, or less than 2 per cent., were recorded as 'very slightly turbid,' and seven samples only, or less than ¾ per cent., as 'slightly turbid.' In respect of colour, aëration, and freedom from excess of organic matter, the excellent condition of the water, as noted in our previous reports, has been fully maintained." Further, Dr. Frankland says, the Thames water distributed by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth companies was of almost the same average quality as last month, and, as regards impurities in solution, superior to that distributed during the previous months of the year. The filtration was again, however, less efficient than usual, all the waters, excepting that of the Grand Junction Company, being slightly turbid on delivery. The water drawn from the Lea by the New River and East London companies was of even better quality than last month, the New River Company's water being, as regards chemical purity, second to none but the best of the deep-well waters. The waters of both companies had been efficiently filtered before delivery.

EULENBURG ON TENDON AND OTHER REFLEXES.

A. EULENBURG (*Deutsche Med. Zeitung*, No. 35) has made some observations on the tendon and other reflexes in 124 healthy children, varying in age from one month to five years. The knee phenomenon was not obtained in 7 cases on either side, and in 3 on one side. The foot phenomenon failed, or was very indistinct, in 101 cases. The reflex from the tibia and radius was wanting 108 and 109 times respectively. The abdominal, nasal, corneal, and pupillary reflexes were, on the contrary, always present. The auricular reflex was not clearly got 5 times. Out of 78 boys, 20 did not exhibit the cremasteric reflex. The period of latent stimulation of the foot phenomenon (Achilles tendon reflex) was found to be about one sixty-second part of a second longer than for the knee phenomenon. Eulenburg explains this, without adopting the reflex theory, by saying that the peripheral resistance to the transmission of the irritation is greater.

PRESIDENT GARFIELD'S CASE.

OUR American contemporaries are naturally irritated at the judgment said by the *Athenæum* to have been pronounced by Prof. Esmarch on the management of President Garfield's case, to the effect that "General Garfield might have been alive but for the treatment he received." "We ask," says the *Philadelphia Medical Reporter*, "is it possible for Prof. Esmarch or anybody else to form a correct opinion about a confessedly obscure and intricate case without seeing it? Is it fair to pronounce criticisms adverse to the skill of surgeons when these criticisms are based upon facts developed after the case had terminated, and which could not have been known before? We have heard of a man who remarked to his censors that there are many cases where it is the most difficult of all things to exercise a judicious foresight; but that anybody can rely upon their *hindsight*. So we think that Prof. Esmarch, with a full knowledge of the lesion in the President's case, might suggest something which might have been done that was left undone, and might object with reason to something done which had been better left undone. But is this not the history of every unfortunate case? And is there any guarantee that if these steps had been taken the result would have been different? None whatever." "Prof. Esmarch," observes the *New York Medical Record*, "lives a long way off, and speaks at a very late hour. It is easy to make mistakes under any conditions. He had better have held his peace. There are many American surgeons who know more than Prof. Esmarch, and think very differently from him."

THERAPEUTICAL SOFT-SOAP.

DR. SENATOR advocates (*Berlin. Klin. Woch.*, No. 38) the external use of soft soap as an absorbent, more especially for the solid products of inflammation. In this respect soft soap may be added to the preparations of mercury and iodine. The preparation is, it need not be said, old enough. A few years ago, Kapesser (*Berlin. Klin. Woch.*, 1878, No. 6) employed the inunction of it for the removal by absorption of chronic scrofulous glands. Senator has used it chiefly in dealing with exudations from serous membranes, whether arthritic, pericardial, or pleuritic. With regard to the *rationale*, the Professor believes that it probably acts in three ways—(1) by mere friction; (2) as an irritant, for old products of inflammation may often be absorbed by the induction of an acute inflammation of the same tissues; (3) it is possible that the alkaline soap may have a certain degree of power in rendering exudations softer, and so more easily taken up by lymphatic or hæmic vessels. Be it remembered that the inunction must not be repeated too frequently on the same region of the surface of the body, lest pustulation ensue.

SAD DEATH OF DR. WILLIAM THOMPSON, OF LISBURN, CO. ANTRIM.

ON Friday week, September 22, a very lamentable accident occurred at the Dunmurry Station of the Great Northern Railway of Ireland, about four miles from Belfast, resulting in the almost instantaneous death of Dr. William Thompson, Surgeon to the Co. Antrim Infirmary, and a highly esteemed and eminent member of the profession in the North of Ireland. Dr. Thompson had driven in the morning from Lisburn to Dunmurry, where he paid a professional visit. From his patient's residence he walked to the railway-station, intending to catch a train for Belfast. For this purpose he was in the act of crossing the line when the "limited mail" train, leaving Belfast at 11 a.m., came down upon him at very great speed. He was struck, it is supposed, by a corner of the engine, and flung to the side of the line. He remained unconscious, and died in a quarter of an hour. Dr. Thompson was one of the leading consultants in the North of Ireland. In surgery he held a foremost place. He was the first surgeon in the United Kingdom to perform the operation of ovariotomy—an operation which has given such a high reputation to such men as Spencer Wells of London, and Keith of Edinburgh. He was of a very retiring disposition, and did not mix much in public life. At the time of his death he was an old man, nearly eighty years of age, having spent fifty-four years in the practice of his profession. He graduated as Doctor of Medicine in the University of Edinburgh in 1828; was a Licentiate of the Royal College of Surgeons, Ireland, 1830, and became a Fellow of the same College in 1845. During many years he was chief Consulting Medical Officer of the Lisburn Infirmary. Few members of the medical profession enjoyed a larger practice in special cases than he did, his patients coming from long distances to receive advice. His sad death is universally deplored in the North of Ireland.

THE TOY-PISTOL NUISANCE.

THIS seems to have become a very serious affair in America. The *New York Medical Record* states that the injuries as well as deaths have been very numerous, over fifty children injured by the pistols having been brought into the hospitals on July 4, the national anniversary, on which, of course, they were in full requisition. The *Boston Medical Journal* (July 27) states that since July 1 eight cases of death from tetanus due to these pistols have taken place. The accidents seem to be chiefly due to explosions caused by the faulty construction of the pistols.

MERCER'S HOSPITAL, DUBLIN.

DR. CHARLES FREDERICK KNIGHT, Demonstrator in Anatomy in the Ledwich School of Medicine, Peter-street, Dublin, has been appointed Physician to this Hospital, in succession to Dr. George F. Duffey, now Physician to the City of Dublin Hospital. Dr. Knight was educated at Queen's College, Cork, the Ledwich School and the Royal College of Surgeons in Ireland, and in London. In 1877 he graduated as M.D., M.Ch., and L.M. in the Queen's University in Ireland.

OBSTETRICS IN BURMAH.

SHWAY YOE, a native of Burmah, and subject of the Great Queen, describes with some minuteness, in a work on the life and notions of his countrymen, which has just been published by Messrs. Macmillan, a number of curious practices still observed in every Burmese lying-in room. Directly the child is born, he tells us, the mother is rubbed all over with turmeric, and a big fire is lighted as near as the construction of the wooden or bamboo house permits, while rugs and blankets are heaped over her to the extent of the possessions of the family. As speedily as possible the midwife prepares a draught called *say-sehn* (green medicine), the composition of which is kept a secret from inquisitive males. This the victim in bed has to drink perpetually during seven days, and for the same period, irrespective of the blankets and the time of the year, is heated up with *oht poo*. These are big circular or lozenge-shaped bricks. They are heated red-hot in the wood fire, dropped for a few seconds into a potful of water, and then wrapped up in cloths and applied to the body of the mother. In addition to this, doses of turmeric are regularly administered, and every now and then she is made to smell *sah-mohn-net*, a plant which is put in an earthen pot, strongly heated, and then triturated into the shape of a ball. The odour is not exactly exhilarating, but probably after the hot bricks and *say-sehn* everything else comes as a matter of detail. All this is done to drive out the noxious humours which are supposed to be generated by the birth of a child. On the seventh day the woman takes an elementary kind of Turkish bath. She sits over a huge jar of hot water, medicated with tamarind-twigs, with a blanket over her. After about an hour of this bath, she has a cold bath, and is then free to do as she pleases. She usually goes to bed. It might be supposed that under this treatment death after child-bearing would be very frequent, but, as far as imperfect statistics can show, the percentage of mortality is not much higher than in other countries. The result, however, appears in another way. A woman ages ten or fifteen years for every child she bears. It is satisfactory to notice that in all the larger towns in Lower Burmah the more unpleasant features of the practices of the lying-in room described are fading away before the example and influence of women of other nationalities. In the jungle and in Upper Burmah, however, ancient use and wont still prevail, and the young mother of fourteen or fifteen years of age is shrivelled into thirty after her first baby. If a woman gives birth to a still-born child, a piece of iron is placed in the cloth in which the body is wrapped, or in the coffin, if there is one, and at the burial some member of the family says some such formula as, "Never more return into thy mother's womb till this metal becomes soft as down." If a married woman dies when advanced in pregnancy, the Cæsarian operation is performed, not with the view of saving the child, but with the purpose of burying it in a secret place apart from the mother, so that it may never trouble her again in her state of future existence. Cauls are as highly thought of by Burmans as they are by English sailors.

THE TEMPERATURE OF THE HUMAN STOMACH.

DR. RODSAJEWSEY (*Deutsche Medizinische Zeitung*), of Kiew, has been making observations on the temperature of the stomach in a patient with gastro-fistula; the opening had been done for stricture of the œsophagus due to swallowing sulphuric acid. Synchronous investigations were made in the stomach, rectum, and axilla. He finds that the gastric temperature is dependent on two factors —(1) the general diurnal variation of the body-heat; (2) the temperature of the food given. The temperature of the latter diminishes during digestion. The gastric heat is lower than that of the rectum during digestion, but higher than the axillary. The introduction of hot nourishment affects the whole body as well as the stomach.

DEATH OF DR. HILLAIRET.

DR. HILLAIRET, member of the Académie de Médecine, Officer of the Legion of Honour, formerly Physician of the Hopital St. Louis, etc., died, almost suddenly, on the 14th of this month, while in the midst of apparently robust health. He was the author of an important memoir on Hæmorrhages of the Cerebellum, which was founded on numerous observations made at the Hospice des Incurables, and this was followed by clinical observations on Diseases of the Nervous System. Lately he had commenced the publication of a work on Diseases of the Skin, the fruit of his long connexion with the St. Louis. In the *Gazette Hebdomadaire* of September 22, Dr. Dieulafoy gives an interesting account of the rapid illness and death of Dr. Hillairet, who was carried off during a paroxysm of angina pectoris. The patient seems to have conducted the treatment, or rather non-treatment, of his own case, in the presence of his medical advisers, who did apparently nothing beyond assuring themselves by careful auscultation that the condition of the heart was quite normal.

DIPHTHERIA IN GERMANY.

WE have before us a report by Dr. Geissler on the mortality in the kingdom of Saxony for the year 1881, compared with that of the previous year, and the mean of the quinquennium 1876-81. Saxony has a population of close on 3,000,000, and not less than eight towns with more than 20,000 inhabitants, Dresden having 200,000, and Leipzig 130,000. Having also large manufacturing and mining industries, the condition of the people may fairly be compared with those of our own country. The mean annual death-rate is higher than that of England, being 28 per 1000, but the mortality from scarlatina, measles, and whooping-cough is less. Enteric fever is slightly more fatal. But the most remarkable feature in these tables is the extraordinary prevalence of diphtheria, which, including croup, presents a mortality of 0·95 per 1000, as against 0·11 in our Registrar-General's return for last year. In the last five years it was even higher, viz., 1·06. It is true that the German statists include cases of croup under the head of diphtheria, while in our returns an attempt is made to distinguish them, but this alone cannot explain the enormous difference. The intimate connexion between certain insanitary conditions and diphtheria is held by most medical authorities; even the experience of Dr. C. Kelly, as to the greater frequency of its occurrence in the rural than in the urban portions of his district, does not appear to us to invalidate it, for where more than in poor villages and detached hamlets are the conditions in question—ill-constructed wells and cesspools side by side, and dunghills and pigstyes in close proximity to human dwellings—to be found? Anyone familiar with German towns and villages must know that if there be one point in which our continental neighbours are behind us, it is in their "privy accommodation"; and if there be any relation between this and diphtheria, the excessive mortality from this disease is no more than one would expect to find.

TRANSACTIONS OF THE WIESBADEN MEDICAL CONGRESS.

WE are informed that the long looked for publication of the complete transactions of the first Medical Congress held in Wiesbaden is now to be obtained from T. F. Bergmann, publisher, Wiesbaden. The volume contains:—1. Opening Address, by Frerichs. 2. Pathology of Morbus Brightii, by Leyden and Rosenstein. 3. Etiology of Tuberculosis, by Dr. R. Koch. 4. On the Gouty Process, by Ebstein. 5. Antipyretic Method of Treatment, by Liebermeister and Riess. 6. On the Change of Matter in Fever, by Finkler. 7. On various Vaso-motor Conditions of the Mucous Membrane of the Throat, by Rossbach. 8. Case of Resectio Pylori, by Henck. 9. Effects of Morphine on the Bowels, by Nothnagel. 10. Subcutaneous Injections of Silver Salts, by Eulenburg. 11. Injurious Effects of Hypnotic Experiments, by Finklenburg. 12. Change of Cane-sugar into Grape-sugar, by Leube. 13. Change of Matter in the Nervous Centres, by Zuelzer. 14. Tetany and Mechanical Nervous Excitability, by Schultze. 15. Meaning of the so-called Leyden's Crystals, by Ungar.

WE learn from the *Pharmaceutical Journal* that, according to a recent Government return, the crop of cinchona-bark derived from the Government plantations in the island of Java amounted in 1881 to 165,000 Amsterdam pounds (nearly 180,000 lbs. avoirdupois), against 100,000 lbs. in the previous year.

THE typhoid epidemic at Bangor shows little, if any, signs of abatement. Fifty fresh cases were reported last week; and a large number of cases have been reported at Bethesda. Happily, the cases seem, in general, to be of a mild character.

THE Physician to the Bangor Infirmary has written to the *Times* in defence of the Bangor water-supply. He states that they have an abundant and constant supply of pure water taken from a mountain stream distant about seven miles from Bangor, and that there is no better water in the kingdom. It is suspected, however, that typhoid germs got into the water from a house above the intake, a case of typhoid fever having occurred in the house about the middle of June. The drainage of the house empties itself into a brook which runs into the river. This drainage has now been cut off by an intercepting trench, and the sand in the filtering reservoir has been renewed. The inhabitants of Bangor may therefore, Dr. Richards holds, feel renewed confidence in the purity of their water-supply, and it is hoped the epidemic will soon subside.

IT seems very important to know how long typhoid infection, from a single case of the fever which occurred in June last, can exist efficient and potent in running pure water; and how long the infection can live in a sand filtering-bed, through which volumes of river-water are constantly passing. We do not learn how lately the filter-bed was renewed, etc., but at the meeting of the Bangor Local Board of Health on Tuesday last twenty fresh cases of enteric fever were reported since the previous Saturday night.

THE outbreak of small-pox at Capetown has assumed very grave proportions. It is stated that 2000 cases are reported, of which 600 have been fatal, mostly among the natives, but that the disease is spreading among the whites. And the latest report states that it has invaded the Governor's household.

ON

THE RÔLE OF THE DISTOMA HÆMATOBIUM IN THE FORMATION OF VESICAL CALCULI.

By Dr. ZANCAROL,
Surgeon to the Greek Hospital in Alexandria.

Dr. Zancarol, who, it will be remembered, made a communication to the Pathological Society, in the early part of the present year, on the *Bilharzia hæmatobia* as found in the genito-urinary tract, communicates to our contemporary, the *Revue de Chirurgie*, for August last, an interesting paper with the above title. The presence of our soldiers in Egypt at the present time cannot but lend an additional interest to the subject, and so we give, as briefly as may be, the following abstract of the paper. The object of it is to make known the results obtained by the author in litholapaxy, and to contrast these with the results of fifty-four lithotomies and thirteen ordinary lithotrities, all performed in the Greek Hospital at Alexandria, as well as to show the *rôle* of the distoma in producing calculi. This great frequency of vesical calculus in Egypt is due to the presence of the *Distoma hæmatobium*. It is quite exceptional in Egypt not to find the ova of the distoma in the urine of natives of the lower classes affected with calculus vesicæ. The unfiltered Nile water is the vehicle by which the parasite is conveyed into the body. The fellaheen drink the water without filtering it, while the Europeans filter it very carefully before drinking it; hence the former are frequently calculous, and present the distoma in their urine, while the latter are constantly exempt both from the distoma and the calculi—unless, of course, they be careless enough to drink Nile water without filtering it previously. The active agent in producing stone, among the Arabs especially, is the *Distoma hæmatobium*—a trematode parasite of distinct sex, discovered in Egypt in 1857 by Bilharz, refound later on at the Cape by Harley; and more particularly studied quite recently by Griesinger, and by Sonsino still later. The male is cylindrical, about one centimetre in length, provided with a gynecoforous cavity or canal, in which the female is received. The female is thinner, finer, and filiform; and measures about one centimetre and a half. The usual habitation of the entozoa is the blood of the portal, mesenteric, vesical, and hæmorrhoidal veins. The presence of the ova either in the urine, or more rarely in the fæces, betrays the existence of these parasites in the organism. The eggs have the form of cucumber-seeds, one end being rounded, the other sharp, and are provided with an appendix; this latter is at one or other extremity of the ova which come from the bladder, while it is situated laterally on the ova which are found in the fæces. The ovum consists of an anhistous membrane containing the embryo. Once set free in the urine, the embryo may continue to develope during the next twenty-four hours, according to Sonsino. By following with the microscope the first stage of its evolution, the external envelope of the ovum may be seen to rupture at some point and give passage to the embryo; this, being provided with vibratory cilia, moves about in a characteristic manner by contorting its body into varying forms. Bilharz, Griesinger, and Sonsino have described the changes which the ova excite in the genito-urinary, and more rarely in the intestinal, mucous membranes; their number is prodigious, and, deposited in the portal system of veins, they accumulate in the vesical veins, and thence find their way into the sub-mucous tissue of the bladder in such considerable masses, that at places the mucous membrane ruptures, and so gives rise to frequent and intractable hæmorrhages. These infiltrations in the sub-mucous tissue and in the reticulum of the mucous membrane lead to subacute and chronic changes, to villous and fungoid vegetations, which, from their favouring the decomposition of the urine, become coated with calculous incrustations of considerable extent. The bladder, as it thus becomes thicker, loses its elasticity. The incrustations detach themselves in places, agglomerate together, and so form the nucleus for a calculus, which then enlarges by successive layers deposited on its surface. On some occasions the external membranes of the ova have been found in the centre of a calculus as its nucleus.

After relating fourteen cases of litholapaxy, of which two were fatal, the author adds the following particulars of the cases:—The average stay in hospital was a little over ten days; the operations lasted from seven minutes to two hours and a half; and the longer *séances* did not seem to produce any ill effects whatever on the patients. As regards complications, there was one case of orchitis, and one case in which the urethra had to be incised in order to allow passage of the lithotrite. Slight rise of temperature was observed on the evening of the operation, with a prompt return to the normal on the following day. Comparing these results with those obtained from the old method of lithotrity, in the author's practice the numbers of cured and fatal cases were not so very different; but the less suffering and the more rapid result speak considerably in favour of Bigelow's litholapaxy. Of the fifty-four lateral lithotomies, nine died; this gives a higher mortality by 2 per cent. than does litholapaxy. On the other hand, some of the calculi were of exceptionally large size. In many of the fatal cases, however, extensive pathological changes existed, which were not due in any way to the operation. Dr. Zancarol inclines, however, to litholapaxy more and more, reserving lithotomy for the largest-sized stones—all, in fact, above sixty grammes (900 grains about). Two conditions are indispensable to success in litholapaxy—a tolerant bladder (he refers to cases in which, even after chloroformisation, the bladder was in a state of constant contraction), and a large or a dilatable urethra. These two conditions absent, he would prefer lithotomy.

FROM ABROAD.

The Employment of Blisters in Children.

The following is a summary of two interesting lectures delivered by Dr. Archambault at the Hopital des Enfants Malades, and reported in the *Progrès Médical*, Nos. 21 and 22:—

Blisters are much used in the treatment of the diseases of children, and are often, as I have the proof, employed very carelessly, whether as regards their true indications or their mode of application. Accustomed to prescribe for adults, most practitioners forget the distance which separates these from children. While in the adult a blister may remain *in situ* from seven to twelve hours, according to the region, it is sufficient for it to remain in contact with the skin of an infant during its first year for an hour, an hour and a half, or at most two hours, in order to raise the epidermis. If this do not then rise, all that is necessary is to apply over the surface a bread-and-milk or a potato-starch poultice, and in about two hours an abundant serosity is produced. In children of five years, four hours suffice for the induction of vesication. What takes place anatomically when the blister is left on too long? The cantharidin, penetrating through the very soft tissues, imbibed with juices, almost reaches the innermost surface of the dermis, destroying or altering the skin throughout almost the whole of its substance. I have very frequently had to show this on infants who are brought here, having had blisters applied without any precautions being observed. Surprise is then expressed at the time required for healing this kind of burns of the third degree, and the cause is always sought for either in the bad constitution of the subjects or in prevalence of some contagious or epidemic influence. These last conditions do really exert a great influence; but we must in a great number of cases assign an important part to the too long duration of the application of the blister.

Another precaution recommended by Bretonneau under all circumstances, but of especial importance in children, consists in covering the blister with thin oiled paper. This prevents the too rapid penetration of the cantharidin, and does not allow fragments of the plaster to remain adherent to the skin when the blister is removed—fragments which, by the continuity of their action, destroy the skin too deeply, and give rise to small ulcerated points. Thirdly, we should be careful to order blisters to be only of a small size, for they are almost always too large. Practitioners, unless accustomed to diseases among children, almost always fall

into this error, although it would seem easy to bear in mind that the region to which a blister is to be applied is more than three or four times of less extent in the child than in the adult. Do not fear here at sinning on the side of prudence; and especially in those cases in which you only prescribe a blister in order not to be accused of having neglected a means to which the family may attach importance. You should endeavour to have them as small as possible.

It is of importance, also, to bear in mind the condition of the subject, who, in order to well endure this severe means of treatment, should possess a certain power of resistance. Thus, I entreat of you never to resort to it in emaciated children, in whom nutrition is defective, or who are the subjects of some exhausting chronic affection. The first effect of a blister is to irritate the nervous system by the pain, and to add to the debility by the loss of serosity or pus which it necessarily gives rise to. Take note, moreover, that in individuals whose vitality is very feeble, and some of whom are in a state of well-marked physiological *misère*, the blistered surface has a great tendency to become ulcerated, so that you risk adding to the primary disease a true complication which will not fail to exhaust what remains of the strength. It must also be borne in mind that the application of a blister in children who have breakings-out, ulcerations, or some of those little points of suppuration which are vulgarly termed the rising of the humours, generally induces very obstinate eczematous eruptions, or the pustules of impetigo, or gives rise to a kind of ulcer which is very difficult to heal. Great consideration should also be paid to the surroundings amidst which the child is placed. Thus the new internes of the hospital soon find that they must moderate the eagerness with which at first they resort to blisters, owing to the facility with which these ulcerate, and become covered with a whitish pulp, resembling hospital gangrene, or still oftener with true diphtheritic membranes. These unfortunate occurrences, which render blistering a true disease added to the principal one, are doubtless often to be imputed to the feeble and cachectic condition of the little patients, but they are also due to nosocomial influences. So mischievous are the effects of blisters when employed in a child suffering from diphtheria, that few practitioners of the present day would think of using them in a case of croup; but a great number still resort to them in severe or stridulous laryngitis. This is entirely wrong, for any advantage to be derived from blisters is entirely problematical; and moreover, in these cases the diagnosis is always somewhat uncertain, so that we may have to do with a case of croup, where a blister may prove a source of extreme embarrassment to the practitioner, and may lead to a fatal aggravation of the disease. The same observation applies to many other cases in which blisters are had recourse to in a mere routine manner, without any reasonable likelihood that they may be of service, and in disregard of the palpable inconveniences which are so much more real than their supposed utility. The blister is a great favourite with the public, for it speaks to the eye, and it is often demanded by relatives, who have confidence in it in proportion as it rises well and inflicts suffering; and these popular beliefs are still encouraged by the confidence, which may be termed fanatical, of some practitioners in the efficacy of this means.

After quoting a passage from Graves, describing the mischief often done by blistering, Dr. Archambault observes that although this powerful picture may be somewhat sombre, yet in his own practice he has always found that when blisters are applied in young children without the precautions indicated above they produce fever, restlessness, insomnia, an impossibility of maintaining certain positions, and very frequently cantharidine nephritis, and a true dysuria. This last complication, of little consequence and only fleeting in the adult, is of far greater gravity in the infant, is accompanied by sharp fever, and may give rise to convulsions. In order to prevent it, it is extremely important, if a blister is to be risked, not to forget to powder its surface with camphor and cover this with oiled paper.

There are certain regions of the body on which we should avoid producing vesication, and Graves has indicated the inconvenience of the nape; and yet the blister is scarcely ever omitted being applied there in all cerebral affections, especially meningitis. That a blister is of no kind of utility in a case of meningitis, every practitioner must admit, and those who order it do so only to satisfy ignorant relatives, to seem to be doing something and to gain time. And, useless as the practice is, it may do no harm when the child is plunged in a coma, whence in all probability it will never arouse. But if it is in a state of nervous excitement with delirium, then a blister to the nape will almost certainly increase the excitement, and lead on to the very accidents which it is intended to combat. One of the parts to which blisters are applied in all pulmonary affections is the posterior part of the chest, and it is of importance to well observe that, in spite of all the care that may be taken, they very frequently inflame and ulcerate, owing to the pressure they are submitted to by the dorsal decubitus. They have the great inconvenience of preventing the little patient taking due rest, owing to the irritation and pain which they cause during the first few days; while any inflammation or ulceration which may ensue converts them into a dangerous complication. The constant pain they excite, the fever which they maintain, the impossibility of the child's assuming the positions favourable to rest, the troubled sleep, cause excessive fatigue, render the child sombre, call forth his cries, and disturb his appetite—conditions not likely to aid recovery. They are met with when blisters are applied along the side of the spinal column, especially towards the end of severe fevers in the course of an old broncho-pneumonia which has debilitated its subject. Also in the course of chronic pleurisy, which is so determinedly pursued by blisters, that yet produce no useful effects upon the disease, while they often do great harm to the part. If it be thought useful to apply a blister to the chest at all, the lateral or anterior part should be selected. If applied to the lower extremities, the inner part of the calves of the legs should be preferred to the inner part of the thighs.

The application of a blister requires much greater care in the child than in the adult. It must be fixed and maintained in its place with great precaution, or it will become displaced by the movements and attempts at removal of the child. The practitioner should, if possible, apply it himself, fasten it down with strips of diachylon, and having covered this by a compress of wadding or a folded handkerchief, secure the whole by a bandage appropriate to the region. When, on removing the blister, no collection of serum is found, a cataplasm should always be applied; but when the serum is present it should be discharged; and if the child seems to suffer much, a scarcely tepid starch or bread-and-milk poultice, the surface of which is smeared with fresh butter or cold cream, may be put on. This simple plan gives great ease to the pain, and procures a cessation of the cries and excitement of the child. For subsequent dressing no cerate should be employed, for this remaining on the raw surface or around its edges, becomes rancid and causes irritation. Instead of this, blotting-paper with glycerine or very thin glycerole of starch may be used, the only inconvenience being that a passing burning sensation is produced at any point deprived of epidermis. Glycerine has the advantage of being easily removed by water. Vaseline may also be employed. Wadding dressing may be used from the first or next day, fine jewellers' cotton being employed, and so fixed on that it cannot be displaced. The preservation of the pellicle of epidermis is of great importance for diminishing the sensibility and preventing ulceration, but then this is very difficult on account of the incessant movements of the child. Nothing can be more painful to witness than a poor little child with its back deprived of epidermis and of a vivid red, screaming, agitated, and struggling against the pain, and seeming each instant on the verge of convulsions. It is doubtful whether the disease from which it suffers, whatever this may be, can derive benefit from a state of excitement like this. By carefully dressing the blistered surface night and morning we may obtain its desiccation in a few days; but there are cases, exceptional in the adult but much more frequent in children, in which this becomes ulcerated and covered with a pultaceous matter, or even a true diphtheritic false membrane. In almost all these cases a more or less vivid redness, due to an active inflammatory process, surrounds the blister. Ulceration may occupy the whole surface, and an abundant suppuration take place, while sometimes serpiginous ulcers exist here and there. In other cases the ulceration may extend at certain points beyond the original margin of the blister. The first indication is to try and abate the inflammation by the permanent application of cataplasms for some days; but these should never be made of linseed-meal, which, unless quite fresh, only irritates the skin. Under any cir-

cumstances, and especially if there be pain, an anodyne mixture or ointment should be spread over the poultice. Although the indication of cataplasms with emollients appears in a great number of cases to be absolute, yet not infrequently they not only fail to do good, but aggravate the local condition, so that they have to be abandoned, and some of the following means of modifying the surfaces resorted to, which sometimes effect a cure in some days, but at others prove of no avail:—1. Powder the whole surface with pulverised cinchona, and cover it with wadding. 2. Wash the surface night and morning with the following solution: decoction of cinchona 500, and chloride of sodium 200 grammes; or carbolic acid 5, and water 500 grammes. These solutions are especially useful if the secretions smell strongly. 3. Dress with the following or some analogous ointment: bioxide of mercury half a gramme, white precipitate one gramme, and purified lard thirty grammes. 4. If the surface presents a greyish sanious layer, it should be treated throughout its whole extent with a pencil of nitrate of silver, or with a pencil dipped in a solution of five grammes of the nitrate to twenty grammes of distilled water. If this causes much pain it should be applied very superficially, and its action may be moderated by applying a little salt water immediately after using it. It is often very efficacious; and is still more strongly indicated in the fungous form of ulceration, with diphtheritic or other false membrane. 5. Certain blistered surfaces become covered with a greyish granular pellicle, the diphtheritic nature of which is far from having been demonstrated, and at the same time furnish an abundant quantity of a liquid which penetrates all the dressings. A good means of treating this consists in powdering the surface almost every hour with very dry modelling plaster, which absorbs all moisture, dries the part in a very short time, and forms a crust, which, when it falls, leaves beneath it a red surface suitable for cicatrisation. Every time that the plaster has to be renewed, all that can should be removed of the old, without detaching any that remains adherent to the pultaceous substance. This application has been found very useful in the hospital, even in the case of true diphtheritic false membrane. Another useful application is twenty-five grammes of camphor with ten grammes of carbolic acid, with which the parts are touched, some of the bioxide of mercury or calomel ointment being afterwards applied. 6. The general health of the child, which is almost always bad, must also be looked to, for as long as nutrition is defective there will be great difficulty in treating ulcers consecutive to blisters.

"I terminate here this too long dissertation by a declaration which is the expression of what a practice, now very long, has taught me. If I am still in doubt regarding the good effects which I have believed might be attributed to blisters under some rare circumstances, my conviction is absolutely final as to their mischievous influence in a great number of cases; and, in a more concise manner, I may say that I am not sure that I have ever seen them do any good, but that I am very certain that they have often done a great deal of harm. Never apply them, then, in children unless they are positively indicated, and especially take every precaution to prevent the accidents to which they may give rise."

CAFEIN IN AFFECTIONS OF THE HEART.—Dr. Huchsrd, of the Ténon Hospital, thus sums up a communication which he has made to the Société de Thérapeutique upon this subject:—"I cannot too often repeat what I said at the commencement of this communication: digitalis remains, and will always remain, the great medicine of the heart. But in cases in which it proves useless or insufficient, and especially in those in which it is hurtful, we should always bear the employment of cafein in mind, which under certain circumstances, as yet only incompletely known, may produce the best effects, on the express condition, I again repeat, of its being administered in sufficient doses. (The excessive dearness of the substance is a great obstacle to its employment.) Thus the assertion which I made at the beginning of this paper is, in part at least, confirmed—that there is not one single cardiac medicament, but several. The almost necessary corollary of this proposition is that there is no single asystolia, but several kinds of asystolia. This is an eminently practical question, which I propose shortly to bring before you."

REVIEWS AND NOTICES OF BOOKS.

Sarcoma and Carcinoma: their Pathology, Diagnosis, and Treatment. By H. T. BUTLIN, F.R.C.S. With four lithographic plates. London: J. and A. Churchill. 1882. 8vo, pp. 202.

THE work before us has been carefully and laboriously compiled by a surgeon who has long made the subject one of special study. It may, for purposes of review, be said to consist of an introduction, in which the author gives definitions and his view on the origin of tumours, and of a series of chapters on sarcoma and carcinoma as affecting the different organs of the body. This latter is a most valuable statistical compilation, wherein only such cases are mentioned as had been proved by microscopic observation to belong to one or the other group of morbid products.

In the introduction we have the author's definition of the words "sarcoma" and "carcinoma." That of sarcoma differs from the definition of Virchow, who, it will be remembered, re-introduced this word into general use. Mr. Butlin says: "By sarcoma I understand a tumour of *connective-tissue origin*, composed of elements which are for the most part cellular and embryonic. The elements are embedded in a matrix of intercellular substance of varying quality and quantity. The vessels run between the cells, and the cells increase in number by division." Virchow defines a sarcoma as a new growth, *similar* in structure to the connective-tissue series, and which only differs from them by an increase in the cellular elements. He thus differs from Mr. Butlin in not committing himself to any view as to the *origin* of these tumours. Virchow also lays stress on the fact that in sarcoma the cells are part of the tissue and directly continuous with the intercellular substance, while Mr. Butlin speaks of them as "embedded" in the matrix. Thus the great difference between a sarcoma and a carcinoma, on which Virchow insists, is lost in Mr. Butlin's definition. A carcinoma, says this latter author, is a tumour of epithelial origin, possessing generally an alveolar structure. The cells are seldom separated by a visible intercellular substance. . . ." Here, again, the definition loses much force. Are the cells in the carcinoma found within the alveoli, or in the tissue forming the alveoli? Do the cells or the alveolar structure form the essential part of the carcinoma? And, lastly, of what nature are the cells? are they similar to the cells of a sarcoma? Our author does not enlighten us on this matter. It would have been well to have been more precise in the definition, even if to the exclusion of other matter. The questions of origin and of the mode of growth are not such as can be settled in two brief paragraphs.

Mr. Butlin tells us that the difference between the two tumours lies in *their origin*, and that he regards this as the most reliable basis for classification, while he rejects the "embryonic theory,"—although he believes it to be "the most scientific basis of division." Is this not somewhat self-contradictory? If an epithelial structure can alone give rise to a carcinoma, and a connective tissue to a sarcoma, as Mr. Butlin asserts, the "embryonic theory" is substantiated. For this is essentially the embryonic theory.

The subdivisions of these two classes are explained clearly and at some length, and the student will do well to make himself thoroughly acquainted with this "introduction" before attempting to get up the subsequent chapters. The remarks on malignancy and recurrence are interesting; while the causes of malignancy, parasitism, spermatic influence, inclusion of embryonic tissues in organised parts, are also briefly referred to.

We shall not attempt to follow the author through his various chapters; each one has been carefully compiled from all available sources, and most of the reliable cases of these diseases as affecting various organs will be found by any who wish for precise information. That there should be some omissions is only natural. There are four lithographic plates from the author's own drawings,—of which we can only say that they are perfect and characteristic representations of the various forms of sarcoma and carcinoma referred to in the text.

The book is well got up in every respect, and is clothed in one of the more modern æsthetic bindings, which will add much to the appearance of the library shelves.

Nice and its Climate. By Dr. A. Baréty. Translated, with additions, by C. West, M.D., F.R.C.P. London: Ed. Stanford. 1882. Post 8vo, pp. 162.

"Nice and its Climate," by Drs. Baréty and West, is, as the authors tell us, addressed neither to tourists nor to invalids, but to the members of our profession, as a guide to the selection of cases which may be benefited by a sojourn at Nice, and to the choice of the particular locality best adapted to each class of cases; for it is to be remembered that the climates of the sea-board, the plain, and the hill-sides differ greatly from one another in their general character, and still more in their therapeutic effects, though agreeing in the absence of fogs, in moderate dryness, and in limited range of temperature. The meteorological features of the climate generally, and in each month, are fully discussed, the careful observations of MM Teyssères and Thaon being freely quoted; and much useful advice is given as to the mode of life to be followed by invalids.

As a general rule the authors find that cases marked by anæmia, asthenia, catarrh, or a scrofulous taint, are greatly benefited; while for the opposite conditions of congestion, excitability, and deficient secretion, the climate is contra-indicated. Aged persons and young children, and persons coming from low, damp countries and manufacturing towns, benefit more than adults or the inhabitants of drier and warmer climes. As regards phthisis, great discrimination is required in the selection of cases and of the particular locality, but, as a rule, laryngeal phthisis is aggravated; while diarrhœa and dyspepsia are greatly improved. Any tendency, however, to pharyngitis, biliary catarrh, nervous affections of the heart, catarrh of the bladder, aneurism, exophthalmic goître, or inflammation of the eyes, and hæmoptysis from whatever cause, will inevitably be aggravated by the climate of the seaside, though in these cases a residence on the hillsides, or more distant part of the plain, may often be decidedly beneficial.

An interesting chapter on the history and antiquities of the Ligurian coast, by M. Lenthéric, and one on the flora of the Riviera by Professor Allman, complete the work, which, small as it is, is marked throughout by good sense and an entire absence of exaggeration, fine writing, or quackery of any kind.

Winters Abroad. By R. H. Otter, M.A. London: John Murray. 1882. 8vo, pp. 236.

"Winters Abroad," by Mr. Otter, is one of the best books of its kind, and contains a large amount of information as to the climate and mode of life in the Cape, the Australian colonies, Egypt, Algiers, and Davos, which will be found most valuable by medical men who may have occasion to recommend to their patients a voyage to one or other of these places, or who may be consulted by them as to the choice of a winter resort. It is a plain and unprejudiced narrative, by a gentleman of education and intelligence, of his personal experience and observations in six consecutive winters in which, under medical advice, he sought to escape the fogs of our island. His first visit was to Australia. He did not derive any decided benefit from the long sea voyage, and thinks that a cruise between latitudes 20° and 40° in the northern hemisphere would, for most persons, be preferable to the extreme change from the heat of the tropics to the cold of the southern ocean. He landed at Melbourne, a town of which he did not form a very favourable opinion. Like not a few other observers and visitors, he thinks that the sudden vicissitudes of temperature in the course of a single day, and the insufferable amount of dust, constitute serious objections in the case of persons with pulmonary disease; and he complains of the entire absence of any regular system of drainage. After some short trips to other parts of South Australia, he proceeded to Tasmania, the climate of which he found much more agreeable, resembling that of England in its best aspects; though the sanitary condition of the capital, Hobart Town, he considered was even worse than that of Melbourne, and his cousin, a robust young man, who was one of his party, fell a victim to a virulent form of typhoid. Mr. Otter, however, was much benefited, and enabled to enjoy to the utmost the months he subsequently passed in Eastern Australia and Queensland. With the situation and society of Sydney he was much pleased, and he gives a graphic account of life among the graziers and sheep-farmers, or "squatters," as they are called there. Brisbane he considers unfit for invalids except in the coolest season; but the Riverine enjoys a magnificent climate, and one specially adapted to persons suffering from affections of the lungs. Invalids would, however, do well to follow the example of the wealthier residents, and withdraw during the hot months of December, January, and February to Tasmania or New Zealand.

Mr. Otter's experience of Algiers two years later, though on the whole not unpleasant, was very different from what he had been led to anticipate. He found it damp and chilly even when far from cold. The hotels are indifferent, and the wines execrable; to these or to the bad drainage he attributed a succession of "bilious attacks," which at length drove him from the place. A really good hotel at Mustapha Supérieur would, he believes, be a successful speculation. He was not favourably impressed with Pau or Biarritz, which he visited on his way home, but thinks that Arcachon with its sandy soil and pine forests might be an agreeable winter resort for persons not seriously ill. The next winter was passed in Egypt, going up the Nile in a *dahabeah* or sailing-boat. He warns visitors that the dryness of the air, which constitutes one of the chief merits of the climate, and the consequent rapid evaporation, makes the nights cold, especially if a north wind be blowing hard. Invalids especially should therefore shun the night air, even in the desert. Cairo itself is too humid in winter, and too hot and dusty in summer, to be healthy. All the party were much better for the trip.

Mr. Otter visited the Cape in January. Cape Town he does not consider desirable for persons with weak lungs, being subject to violent storms of dust and sand; while the water-supply is inadequate, and the drainage as bad as it well can be. Indeed, were it not for the storms of wind known as the "Cape Doctor," the place could be scarcely habitable. The climate and society of Bloemfontein are good, and many consumptive persons have derived great benefit from a stay there; but, as a general rule, Mr. Otter would advise invalids not to remain at any place nearer the sea-coast than 100 miles, unless at an elevation of 1500 feet above the sea. Mr. Otter's last chapter, on Davos, is very good, and written in an admirably judicious tone. He remarks, of course, on the intenseness of the cold, though the extraordinary dryness of the air makes the former hardly felt. In some winters fogs and rain are unknown, though a *Föhn* wind may bring snow and a transient sense of damp. Mr. Otter has, on the whole, a high opinion of Davos: he thinks that some praise it too highly, while others certainly do not sufficiently recognise its advantages. He allows that the judgment of the resident medical men may be biased, but, in his own opinion, the great majority of patients receive benefit, some of them to a surprising extent; and he does not see why visitors should hasten away on the approach of spring.

The work is a really good one, from which medical men may get a sensible, practical, and reliable account of winter resorts; while travellers may gain from it much very helpful information not to be gathered from regulation guide-books. If Mr. Otter visits other winter resorts, he will, we hope, give us the benefit and pleasure of reading his experiences regarding them.

Holidays in Spain. By F. R. McClintock. London: Ed. Stanford. 1882. 8vo, pp. 204.

"Holidays in Spain," by F. R. McClintock, is a charming book of travel, but more suited for the drawing-room table than for the shelves of the physician's library. It is the record of two visits to that country by one who evidently possesses that essential qualification to the real enjoyment of travel—a resolution to like and be liked, to learn the language of a people, and to sympathise with them so far as is possible. Spain is a land of historic romance, and rich in architectural glories and antiquarian interest. Though civilisation has made great progress there of late, though brigands are now more scarce than wolves, and sturdy mules, roadside luncheons, and picturesque *posadas* have given place to railways, buffets, and hotels, it will take long to reduce Seville and Toledo to the prosaic character of Liverpool and Birmingham. We cannot but suspect that Mr. McClintock's impressions of the people are too favourable; but charity is a virtue too rare among tourists in general. We would have gladly met some graver reflections on the

social and moral character of the population, as well as such remarks as Mr. Otter would have given us on the sanitary condition and climatic features of the several towns.

Madeira: its Scenery and How to See it. By ELLEN M. TAYLOR. London: Ed. Stanford. 1882. 8vo, pp. 261, maps, etc.

"MADEIRA," by Miss Taylor, is an exhaustive account of that island, so famed as a health resort, and is almost indispensable to anyone contemplating a visit thereto. In addition to the fullest information that a guide-book could afford, we have an interesting history of the island from its first settlement, lists of the fauna and flora, a description of the geology, agriculture, and industries. There is, however, little of a strictly medical character in the book, the author wisely referring her readers for information as to the climate, etc., to the work of Dr. Grabham, the well-known resident English physician.

Eastbourne as a Residence for Invalids and a Winter Resort. By GEO. MOSELEY, F.R.C.S. London: J. and A. Churchill. 1882. Royal 8vo, pp. 70.

"EASTBOURNE," by Mr. Moseley, strikes us as scarcely worthy of a medical author. Doubtless the hygienic advantages of the place are high, and, thanks to the intelligent liberality of the Duke of Devonshire, who owns the greater part of the town and surrounding country, Eastbourne can boast what Brighton has not yet—an admirable and efficient system of sewerage, as well as an ample and good water-supply: but Mr. Moseley seems to ignore the fallacies which beset inferences drawn from the death-rates of new and small but rapidly growing communities, or from periods too short for the elimination of chance. We cannot think he has made good his claim for Eastbourne as a winter resort, exposed as it is, especially in early spring, to bitter easterly winds.

The Garden of Hyères. By AD. SMITH. London and Hyères. 1882. 8vo, pp. 125.

"THE Garden of Hyères" is a guide-book of the usual type, the printing and lithographic plates of second-rate appearance, and the language in keeping with the general character of the book.

OBITUARY.

WILLIAM ROBERTSON, M.D., F.R.C.P. Edin., F.R.S.E.

DR. WILLIAM ROBERTSON died at his residence in Albany-street, Edinburgh, on August 25 last. He had reached his sixty-fifth year, and although his health had been failing for some considerable time, his last illness was only of about a week's duration.

He was born and educated in Edinburgh, and graduated as M.D. at the University in 1839. He was a Fellow of the Royal College of Physicians of Edinburgh, and held appointments at the New Town Dispensary, Royal Infirmary, and Fever and Cholera Hospitals. During the Crimean War he held the post of Inspector-Physician of the British Civil Hospital at Renkioi. He was for a time Editor of the *Edinburgh Monthly Journal of Medical Science*, and Registrar for Scotland of the General Council of Medical Education and Registration. Latterly he was Medical Officer to the Scottish Widows' Fund Insurance Society (having succeeded Dr. Warburton Begbie), and Superintendent of the Statistical Department in the Register House. Although a physician of great ability, he was not so well known as he deserved to be. This was partly the result of his naturally modest and retiring character, and partly also of the fact that his work, although excellent of its kind, was not such as commonly attracts much professional or public notice.

QUADRUPLE BIRTH.—Dr. Piton notes in the *Union Méd.*, September 6, the case of a woman, thirty-eight years of age, who was delivered of three girls and a boy. The four children together weighed six kilogrammes and a quarter. Three were born dead, and the fourth was so feeble that it could scarcely be expected to live. The placentæ were of a fibrous-like structure and adherent, and had to be removed piecemeal.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Correspondent.)

EDINBURGH, September 21.

THE APPROACH OF THE WINTER MEDICAL SESSION—CHANGES MADE AMONG THE UNIVERSITY PROFESSORS AND THE EXTRAMURAL LECTURERS—THE VACANT POST OF PATHOLOGIST TO THE ROYAL INFIRMARY—PROPOSAL FOR DERMATOLOGICAL AND ACRAL WARDS OR BEDS IN THE INFIRMARY—VACANT APPOINTMENTS IN EDINBURGH.

WITH the approach of October the various members of the profession on whose shoulders lies the work of medical teaching in Edinburgh, are beginning to bestir themselves, and although it seems on all hands to be supposed that a continuation of the very large numbers of students is hardly to be expected, it is as confidently considered that there will be no very marked diminution. The number of students attending the medical classes in the University last winter session was over 1400, and when we remember that to this must be added the less large, but still numerous, body of extramural men, we can understand how the list of medical and surgical teachers in Edinburgh has attained its present unprecedentedly large dimensions.

Among the changes which the ensuing session will bring about, the first to be mentioned is that of Professor Chiene, who will deliver his first course of lectures as Professor of Surgery in the new buildings of the University. Drs. Duncan, Miller, and Macgillivray are now the Extramural Lecturers on Surgery. By the translation of Dr. Hamilton to Aberdeen, the post of Pathologist to the Edinburgh Royal Infirmary has been rendered vacant; and as candidates for this post the names of Drs. Byrom Bramwell, Bruce, Bryan Waller, and G. S. Woodhead are mentioned. All these gentlemen are well known in Edinburgh—Drs. Bramwell and Waller as Lecturers on Practice of Medicine and Pathology, respectively, in the Extra-Academical School; Dr. Bruce as having been the "Eccles" Scholar of his year (1879); and Dr. Woodhead as being Assistant to the Professor of Pathology in the University. The appointment will probably be made in the beginning of October, and Dr. Bramwell's claims are considered the best. In the eye wards of the Infirmary there has also been a change. Mr. Walker, who has so long acted as senior Ophthalmic Surgeon, has retired, his term of office having expired. Dr. Argyll Robertson has now the complete charge; and Dr. George Berry, who has been working in the eye department of the New Town Dispensary, and who is very favourably known as having done original work of a high order, is now Assistant Ophthalmic Surgeon. From time to time also one hears of proposals to have special wards, or at any rate beds, set apart for diseases of the skin and of the ear in the Infirmary. This would, of course, necessitate additions to the medical and surgical staff, and the names of probable and eligible candidates are specified; but though it seems strange that, in a large hospital like ours, comparatively little attention should be paid to those important branches, there is not, for some reason or other, the requisite unanimity of opinion as regards the advisability of such a change. That it would be of benefit, however, no one at all acquainted with hospitals can doubt.

There are two other contests of more than purely academic interest going on actively in Edinburgh. They are for the posts of Medical Adviser to the Scottish Widows' Fund Insurance Society, and of Superintendent of the Statistical Department in the Register House. These are both vacant by the death of Dr. William Robertson, whose name will be familiar to many Edinburgh graduates, as he was for several years Medical Registrar here. For the latter of the two vacant appointments there are not many names mentioned, but for the former quite the reverse is the case. This is probably because it is supposed that the directors of insurance companies do not know, or do not think it necessary to inquire into, the special fitness of the candidates, but imagine that anyone, if only he be a doctor, is sufficiently qualified. Accordingly the applicants for this post form a heterogeneous mass of physicians, surgeons, general practitioners, and

even, it may be said, accoucheurs. This laxity, though it betokens an unfortunate negligence on the part of the managers of such institutions, seems not very creditable as regards some of the candidates and the profession; for does it not demonstrate that there are among us men who are ready to seek the aid of skilled physicians in their private practices, where their individual interests are concerned, and yet have no hesitation in offering themselves to do similar work where a mistaken or imperfect diagnosis will result in a loss to a company's funds? It is to be hoped, however, that in this case the directors will follow the good example of their predecessors, and appoint a physician. In doing so, they will not only further the interests of their Society by obtaining the services of a fittingly as well as legally qualified man, but they will be aiding the progress of medicine, for so long as the general practitioner can secure such valuable posts and exclude the physician, so much the less encouragement will there be for the latter to persevere in his good work.

Edinburgh, with its large number of graduates and teachers, should always be turning out good scientific workers and work. As is well known, however, this is not the case, and the reason is simply the want of encouragement. For this present unfortunate state of affairs the Scottish university system is doubtless mainly responsible, and the extramural lecturers are anxiously looking forward to reforms. This subject is, however, far too important to be considered off-hand.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, September 21:—

Pittard, Marmaduke, Guernsey.

The following gentleman also on the same day passed his Primary Professional Examination:—

Hill, George Birnie, University College.

At the Preliminary Examination in Arts, held at the Hall of the Society on September 21 and 22, 142 candidates presented themselves, of whom ninety-five were rejected, and the following forty-seven passed and received certificates of proficiency in general education, viz.—in the First Class:—

William Rickwood Bacot.

In the Second Class, in alphabetical order:—

E. Barrett, C. W. Bellamy, R. A. Bramner, S. W. A. E. Broadway, G. Brown, F. A. Collington, T. A. B. Cooke, C. W. Crasswellier, E. J. Cross, C. H. Dixon, E. A. Field, J. H. Garrett, G. T. Giddings, E. C. Greenway, W. J. Heasman, H. G. Henry, W. H. E. Howes, M. Imray, J. Angell James, E. B. Jeune, H. B. Knoblanch, T. H. Leggett, J. MacCarthy, H. F. Mantell, E. E. Morrall, P. L. Nettleship, F. J. Nisbet, F. J. J. Orton, Frank Osborn, C. S. Pethick, T. E. P. Pollard, E. M. Quinby, A. F. Richards, W. H. Robinson, W. H. C. Roughead, C. H. Sandbach, H. B. Shepherd, H. Archibold Smith, Percival Smith, Charles Wade, Charles S. Watson, Charles H. Wild, Evan James Williams.

The following passed in Elementary Mechanics only:—

P. H. Daniell, J. G. Johnson, and Ewen C. Stabb.

BIRTHS.

BROWNRIGG.—On September 25, at Hill House, Gravesend, the wife of T. Annesley Brownrigg, M.A., M.D., of a son.

LEFFWICH.—On September 20, at 241, New Cross-road, the wife of Charles Harcourt Leftwich, M.R.C.S., of a son.

MANSON.—On September 13, at Littlewood Park, Alford, Aberdeenshire, the wife of Patrick Manson, M.B., of a son.

MARRIAGES.

LOGIE—ADEL.—On September 21, at Kennett, James C. Logie, M.D., of Morpeth, to Emily Scott, third daughter of the late Rev. John Abel, minister of Forgue, Aberdeenshire.

MEYERS—WOODLEY.—On September 21, at Lewisham, Herbert Henry Meyers, L.R.C.P., M.R.C.S., of Battersea, to Jessie Amy, second daughter of John Woodley, Esq., of Forest Hill.

MILLER—SYMONDS.—On September 23, at Bexley, Kent, Alex. Miller Hallett, of 14, Brunswick-gardens, Kensington, eldest son of Robert Miller, M.D., of Bedford-gardens, to Amy Frances, second daughter of John Symonds, Esq., of Castle House, Bexley, Kent.

PHILLIPPS—ANDERSON.—On September 21, at Sydenham, William Alfred Phillipps, M.D., L.R.C.P., of Faversham, Kent, to Isabella Grace, eldest daughter of William Curling Anderson, Esq., of Aberdeen House, Sydenham.

REDFORD—BENHAM.—On September 26, at Lancaster-gate, George Alexander, eldest son of George Redford, F.R.C.S., Cricklewood, to Mabel Elizabeth, third daughter of the late E. Benham, Esq., of Lyon Lodge, Isleworth.

SMITH—LE BRAS.—On September 16, at Hammersmith, Theophilus, second son of T. Lant Smith, L.R.C.P., M.R.C.S., of Alcester, Warwickshire, to Rosa, daughter of the late H. Le Beau, Esq., of Paris and London.

WILCOX—CROWLEY.—On September 23, at Shooter's Hill, Henry Wilcox, M.B., M.R.C.S., of Dorchester House, Herbert-road, Woolwich, to Edith Mary, eldest daughter of L. A. Crowley, Esq., of Cambridge House, St. John's, S.E.

WILSON—SMITH.—On September 21, at Thornhill-square, the Rev. Alfred Longman Wilson, curate of Loders, Dorset, to Eleanor Lan-de-Warneck, eldest daughter of Gordon Smith, M.R.C.S., of Barnsbury.

DEATHS.

BAIN, JAMES, M.D., Surgeon-Major H.M.'s Bombay Army (retired), at 24, Fulham-park-gardens, S.W., on September 21, aged 55.

BELL, HENRY, M.D., at 3, Raby-place, Bath, on September 20, aged 85.

BIRD, JOHN DURHAM, M.B., at Kirby House, Heaton Chapel, near Stockport, on September 21, aged 44.

HOGG, FRANCIS ROBERTS, M.D., Surgeon-Major, at Morar, Gwalior, on September 21, aged 46.

HOGGINS, WILLIAM, M.R.C.S., at Broad-street, Ludlow, on September 16, aged 65.

JARDINE, MARY, wife of J. B. Jardine, M.D., at Camden House, Chatham, on September 18.

THOMPSON, W., M.D., F.R.C.S., of Lisburn, on September 22, aged 76.

WILLIAMS, HELEN AMELIA JANE, daughter of A. Wynn Williams, M.D., of 1, Montagu-square, W., on September 24, in her 24th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL EYE HOSPITAL, LOWER MAUDLIN-STREET, BRISTOL.—Honorary Surgeon. Candidates must be duly qualified, and practically acquainted with diseases of the eye. Applications, with testimonials, to be addressed to the Secretary at the Hospital, on or before October 7.

CARMARTHEN JOINT COUNTIES ASYLUM.—Junior Assistant Medical Officer. Salary £100 per annum, with furnished apartments, board, and washing. Applications, with testimonials, to be sent to the Medical Superintendent, on or before September 30.

NORTHMAVINE AND DELTING PARISHES, SHETLAND.—Medical Officer. Salary £60 per annum. Practice extensive. Applications and testimonials to be sent to Thomas M. Adie, Esq., Voe, Shetland, on or before September 30.

RADCLIFFE INFIRMARY, OXFORD.—Resident Medical Officer. Salary £100 per annum, with board, lodging and washing. Candidates must have both medical and surgical qualifications, and be registered under the Medical Act. They must not be more than twenty-seven years of age, unmarried, and members of the Church of England. Applications to be made on a printed form to be had of the Secretary, from whom all further information may be obtained. Testimonials to be sent in by September 30.

ST. GEORGE, HANOVER-SQUARE, PROVIDENT DISPENSARY, MOUNT-STREET.—Resident Medical Officer. The salary last year £214 4s. 3d. Candidates must be doubly qualified, duly registered under the Medical Act, about thirty years of age, and unmarried. Applications, with testimonials and references, to be sent to G. W. Leah, jun., 73, Park-street, W. (from whom all further information can be obtained), not later than September 30.

WESTERN GENERAL DISPENSARY, MARYLEBONE-ROAD, N.W.—Resident House-Surgeon. Salary £100 per annum, with furnished apartments, fuel, light, and attendance. Candidates must be Members of the Royal College of Surgeons of London, Edinburgh, or Dublin; or graduates in Surgery and Medicine of a British university; or Members or Licentiates of the Royal College of Physicians of London, Edinburgh, or of the King's or Queen's College of Physicians of Ireland; and duly registered. They must be married men. Applications and testimonials, etc., to be sent to the Secretary, on or before October 2, at 8 p.m., when the Medical Committee will meet to see candidates presenting themselves for the vacancy. The election will take place on October 9.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Brighton Parish.—Mr. David Richards has resigned the Workhouse and Warren Farm Schools: salary £190 for Workhouse, and £90 for Schools.

APPOINTMENTS.

Charlton Union.—Samuel J. Erwin, L.R.C.P., L.R.C.S., to the Openshaw District.

Dore Union.—Seudamore K. Powell, M.D. Durh., M.R.C.S. Eng., L.S.A., to the Madley District.

East Retford Union.—Frank Newcombe, M.R.C.S. Eng., L.S.A., to the Dunham District.

Freebridge Lynn Union.—Frederick A. Barrington, L.K. & Q.C.P. Ire., L.R.C.S. Ire., to the Western District.

Kidderminster Union.—George L. Webster, M.R.C.S. Eng., L.S.A., to the Bewdley District.

Ormskirk Union.—Henry Wickham, M.R.C.S. Eng., L.S.A., to the Fourth District.

St. Faith's Union.—James Fielding, M.R.C.S. Eng., L.R.C.P. Edin., to the St. Faith's District and the Workhouse.

Wolvingham Union.—John Batten Coombe, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., to the Wargrave District.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 23, 1882.

BIRTHS.

Births of Boys, 1289; Girls, 1255; Total, 2544.
Corrected weekly average in the 10 years 1872-81, 2559·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	756	694	1450
Weekly average of the ten years 1872-81, corrected to increased population ...	766·6	665·9	1372·5
Deaths of people aged 80 and upwards			51

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	660833	4	7	3	4	...	2	...		9
North ...	905947	3	15	8	3	1	3	1		16
Central ...	282238	4	6	1	1	...	1	...		9
East	692738	3	13	...	9	...	2	...		21
South	1265927	7	12	5	8	...	5	...		23
Total	3816483	21	53	17	25	1	13	1		78

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·727 in.
Mean temperature	53·0°
Highest point of thermometer	68·1°
Lowest point of thermometer	39·0°
Mean dew-point temperature	48·8°
General direction of wind	N.
Whole amount of rain in the week	0·60 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 23, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Sept. 23.	Deaths Registered during the week ending Sept. 23.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.)	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2344	1450	19·4	68·1	39·0	53·0	11·67		0·60	1·52
Brighton	109595	79	24	11·4	62·8	47·9	53·7	12·06		0·64	1·63
Portsmouth ...	129816	92	48	19·3	...	...	...	...		...	...
Norwich	83821	64	25	14·7	...	...	...	...		...	...
Plymouth	74449	42	28	19·6	64·3	44·8	53·7	12·06		0·11	0·28
Bristol	210134	127	61	14·9	61·9	42·5	51·3	10·73		0·18	1·88
Wolverhampton ..	76756	51	37	25·2	62·8	37·5	50·2	10·11		0·15	0·38
Birmingham ...	408532	287	174	22·2	...	...	...	...		...	...
Leicester	120275	92	58	21·9	...	...	...	...		...	...
Nottingham ...	193373	123	102	27·5	63·0	39·4	52·0	11·11		0·37	0·94
Derby	83587	51	29	18·0	...	...	...	...		...	...
Birkenhead ...	86582	64	29	17·5	...	...	...	...		...	...
Liverpool	560337	381	271	25·2	59·7	45·3	52·9	11·61		0·46	1·24
Bolton	106757	66	26	12·7	61·1	42·2	51·3	10·73		0·10	0·25
Manchester ...	340211	223	165	25·3	...	...	...	...		...	...
Salford	184004	155	76	21·5	...	...	...	...		...	...
Oldham	115572	78	55	24·8	...	...	...	...		...	...
Blackburn	106460	88	34	16·7	...	...	...	...		...	...
Preston	97856	103	49	26·2	...	...	...	...		...	...
Huddersfield ...	83418	48	38	21·9	...	...	...	...		...	...
Halifax	74713	42	24	16·8	...	...	...	...		...	...
Bradford	200158	108	84	21·9	64·0	45·2	52·5	11·39		0·02	0·05
Leeds	316398	230	126	20·8	67·0	43·3	52·6	11·45		0·07	0·18
Sheffield	230516	189	124	22·3	...	...	...	...		...	...
Hull	158814	78	74	24·3	70·0	36·0	52·3	11·28		0·11	0·28
Sunderland ...	119065	87	65	28·5	69·0	45·0	53·8	12·12		0·12	0·30
Newcastle	147626	120	72	25·5	...	...	...	...		...	...
Cardiff	86724	79	35	21·1	...	...	...	...		...	...
For 28 towns ...	8469571	5896	3374	20·8	70·0	36·0	52·4	11·33		0·30	0·76
Edinburgh	232440	120	80	18·0	...	...	...	...		...	...
Glasgow	514048	349	198	20·1	60·3	37·0	51·5	10·81		0·10	0·25
Dublin	348293	177	174	26·1	60·0	46·8	51·9	11·06		0·20	0·51

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·73 in. The lowest reading was 29·52 in. on Wednesday morning, and the highest 29·86 in. by the end of the week.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Benevolent.—Madame Adelina Patti and her friends who are now staying at her house in Wales gave a morning concert at the Albert Hall, Swansea, lately, for the benefit of the Swansea Hospital. The amount netted by it will be about £800.

Grocers' Licences.—The United Temperance Society in Burnley, in order to ascertain the feeling of the ratepayers with reference to the refusal of grocers' licences by the magistrates at the recent Brewster sessions—they having adjourned the consideration of these licences for a month—have had a paper left at every house, asking the householder to state his assent to or dissent from the granting of these licences. These returns, so far as completed, show the following totals:—For, 508; against, 7776; neutral, 387—leaving a majority of 7268 against. This overwhelming vote of condemnation can hardly fail to influence the local magistrates on the adjourned consideration of the question.

A Timely Precaution.—The small-pox epidemic, which for some time has been spreading in the various townships adjacent to Wolverhampton, has now made its appearance in such close proximity to the borough that the Board of Guardians and the Sanitary Committee of the Town Council have decided to provide accommodation for the immediate isolation of any cases that may be brought before their notice.

Generosity.—The Marquis of Bute, and Mr. W. H. Houldsworth, of Coodham, have intimated that they will each furnish a ward in the new hospital at Ayr. The Marchioness of Bute is having a hospital erected at Cumnock, which is rapidly approaching completion.

Lex, Warwickshire.—France is no doubt behind this country in respect to legislative protection of factory children. There are fifteen factory inspectors for all France, and one inspector will have the supervision of eight, nine, and even ten departments. An inspector's allowance is 3000 fr. yearly, representing, at the rate of 25 fr. daily, 120 days of inspection. The result of the inadequate pay is that the factories easily accessible have an undue share of attention, whilst those more remotely situated are practically exempt from the law, thus leaving unprotected a large proportion of those for whose benefit the law was made. To remedy this unsatisfactory state of things, it is recommended that a reorganisation and increase of the inspectorate should be made.

Kirkcaldy.—The question of providing a hospital for this district has again been revived. The Board of Supervision has written to the clerk of the local authority, pointing out that a hospital must be a serious want in a town like Kirkcaldy, with a population of 24,000 inhabitants.

Brighton and its Drainage.—The *Plumber and Decorator* for the current month contains an elaborate report from its Special Commissioner on the sewerage system of Brighton. After expressing an opinion that the open gratings arranged to act as ventilators become nuisances, he adds—"What we have been looking forward to is the engineer who will propound a system of drainage whereby the sewage of our houses shall not only be rapidly removed from their vicinity without creating nuisance, but also be conveyed with equal rapidity to its outfall, through our sewers, before noxious gases are generated." Sir Joseph Bazalgette points to a similar want, by the observation in his report that "one of the most serious defects at Brighton is the closing of the outfall by the rising tide thirteen hours out of the twenty-four, thus converting the sewer at its lower portion into an elongated cesspool." Although there would appear to be some concurrence of opinion as to what is wanted, very conflicting views are expressed how to attain it. The Commissioner admits he has become a convert to the Shone system, although he knew nothing of it till he visited Eastbourne, where the method has been used for a year, and has "worked without a hitch."

Workhouse Temperance Regulations.—The Tenterden Guardians have resolved that the indoor officers be permitted to select as rations eight ounces of coffee or four ounces of tea per week, instead of the usual allowance of beer.

Hospital for Incurables at Mouldeth.—The new home at Mouldeth has just been opened. The institution was founded some ten years ago, and began operations in a small house at Ardwick Green, with accommodation at first for six patients. The need for more extensive premises soon became apparent, and Mouldeth Hall, a commodious house, was purchased for £15,000, and about £8000 has been expended in adding a new wing. At present accommodation is provided for 100 patients, but a considerable addition to the income will be necessary before the building can be utilised to its full extent.

Exhibition of Apparatus for Saving Life from Drowning.—At the City of London Baths, Barbican, an interesting and useful exhibition was opened on the 22nd inst., consisting of all kinds of apparatus for saving lives from drowning.

Lunacy.—In the year ending October 31 last there were 114 orders of inquiry by Commissions of Lunacy carried out by the Masters in Lunacy, and the percentage on lunatics' incomes under general orders amounted to £27,060. There were 234 petitions presented for hearing.

"*Matters to Remain as they are.*"—At a recent meeting of the Darlaston Local Board a discussion was raised as to the necessity of providing a hospital for the reception of small-pox patients, the disease being reported as increasing in the district; and the chairman proposed that a house should be rented for this purpose. But the proposal met with considerable opposition, it being contended that small-pox patients should be sent to the epidemic hospital at the workhouse. Finally, an amendment, "that matters remain as they are," was carried, and the chairman's suggestion rejected.

Scotland.—By the full report of the Scotch Census of 1881, just issued by the Registrar-General, the population of Scotland is ascertained to be 3,735,573—a result which differs from the approximative returns, published some months ago, by slightly over 1000.

Where Inquests should be Held.—At an inquest held by Dr. Danford Thomas on the body of a gentleman who was seized with a fit, and lay unconscious in the street until the arrival of a gentleman who found him dead, it appeared that a constable took the body to the mortuary, Holloway-road. A barrister, who watched the case on behalf of the relatives, said that papers had been found upon the deceased which showed who he was, and that therefore the body should have been taken home. The Coroner remarked that it was only right and proper that the body should lie at the mortuary until he (the coroner) had been communicated with. A protracted discussion ensued between the coroner, counsel, and Mr. Blake, the officer, as to the letter and spirit of the law. Counsel held that the inquest, if necessary, should have been held at the deceased's home. Thereupon the coroner called attention to the action of the Home Secretary in the Bravo case, when he quashed the proceedings at the first coroner's inquiry because it had been held privately. But counsel rejoined that the strict law was, that a body should not be moved until seen by the relatives or friends.

Memorial Hospital Beds.—Mrs. Nathaniel Montefiore has given £2600 to University College Hospital for the endowment of two beds, in memory of her late brother Sir Francis Henry Goldsmith, Bart., and her late son Mr. Leonard Montefiore.

Margarine Butter Firkins.—A Cologne paper describes, on the authority of a medical man, a case in which a family of eight persons all became severely ill after partaking of margarine-butter that had been packed in a firkin made of firwood. Fortunately, medical aid was at hand, and no serious results followed. The doctor states that as the butter itself was found, on chemical examination, to be free from deleterious admixture, the conclusion to be arrived at is that the symptoms were caused by the resin or some injurious substance exuding from the wood; and he adds that he has previously had occasion to notice the harmful effects of packing provisions, and particularly butter, in such wood. It is stated that a large quantity of firwood firkins of margarine butter is consigned to England, where it is extensively consumed by the working-classes.

The St. Katharine's Nursing Badge.—The Queen has given her consent to include the nurses of the London Hospital among those to receive the Badge when the selection is made at the end of the year.

Clubs and the Sale of Liquors.—In the twenty-fifth Report of the Inland Revenue Commissioners, reference is made to the difficulty which has arisen in the administration of the law relating to the sale of intoxicating liquors, owing to the practice of many working-men's clubs supplying such liquors to the members. A large number of clubs have been established, and whilst formerly the sale of liquors was confined to such as were consumed on the club premises, a practice has sprung up in some clubs of supplying them to members for consumption elsewhere. The question of the legality of this practice has been settled in a special case argued before the Court of Queen's Bench Division. The decision of the Court was that the regulation of the supply of excisable liquors by clubs to their members cannot be controlled by the Revenue Laws, which only enable the Commissioners to require a licence to be taken when liquors are sold. The Report adds that the growing social habits of all classes seem to render clubs an absolute necessity in all populous places. But when it appears that the terms of admission to a so-called club are purely nominal, and that a business is made of supplying liquors to be consumed elsewhere than on the premises, for the sake of the profit thereby to be made, either by the club or some persons managing it, the Commissioners think that, in fairness to ordinary traders, such associations should be brought under the licensing laws. Although they are not at present prepared to suggest a plan for the purpose, the matter will continue to engage their attention.

COMMUNICATIONS have been received from—

Mr. Douglas Galton, London; Mr. Gustav Fischer, Jena; Mr. George Buchlett, London; The Local Government Board, London; Dr. Robert Saundby, Birmingham; Mr. H. E. Armstrong, Newcastle-upon-Tyne; The Registrar-General for Ireland, Dublin; Mr. John Broadbent, Liverpool; The Editor of the "New York Medical Journal and Obstetric Review," New York; Dr. Gillespie, London; Surgeon-General C. R. Francis, London; Dr. A. Money, London; Mr. Stanley Hoyle, London; Dr. A. James, Edinburgh; Mr. J. Chatto, London; The Sub-Librarian of the Obstetrical Society of London; The Registrar-General of Scotland, Edinburgh; Mr. E. Stedge, New York; Dr. E. F. Willoughby, London; The Secretary of St. Mary's Hospital Medical School, London; Messrs. Krohne and Sesemann, London; The Sanitary Commissioner, Punjaub; The Registrar of the Apothecaries' Hall, London; Mr. J. F. Bergmann, Wiesbaden.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Medical News—Australian Medical Gazette—Archives de Neurologie—Medical Temperance Journal—Philadelphia Medical Times—Revista de Medicina—Ciencias Médicas—Nottingham and Midland Counties Daily Express, September 23—Ceylon Observer, August 26—Field Naturalist and Scientific Student—Western Morning News, September 27.

APPOINTMENTS FOR THE WEEK.

September 30. ***Saturday*** *(this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

October 2. ***Monday.***

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

3. ***Tuesday.***

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

4. ***Wednesday.***

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

Obstetrical Society of London, 8 p.m. Specimens will be shown The following papers will be read:—Dr. Hopkins Walters, "On a Case of Post-partum Avulsion of the Uterus, etc., followed by Recovery." Dr. Champneys, "On an Obliquely Contracted Pelvis of Unilateral Synostosis." Dr. Gervis, "On a Case of Transverse Septum in the Vagina." Dr. Matthews Duncan, "On a Case of (so-called) Imperforate Hymen."

5. ***Thursday.***

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

6. ***Friday.***

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m; King's College (by Mr. Lister), 2 p.m.

The Diminution of Mortality at the Paris Maternité.—In a note addressed to the Paris Hospital Medical Society, Prof. Tarnier explains the measures which have been taken to reduce the mortality of the Maternité from 9·31 per cent., which it was prior to 1870, to 2·32, which it now is, including the deaths of women brought in *in extremis*. In his thesis, published in 1857, he attributed the propagation of puerperal diseases to a poison transmitted by contagion, and his object has been to combat this poison by the following measures:—1. From the time of the foundation of the Maternité, whenever a woman who had been delivered was taken ill she was transferred to a separate infirmary, but the *internes* and the student midwives had free access from this infirmary to the wards in which were the other women who had been delivered. In 1867, when Prof. Tarnier was appointed Surgeon-in-Chief of the Maternité, he protested against so deplorable a state of things, but it was not until 1870 that he was enabled to get established two entirely distinct services—the one for the accouchements and the other for the infirmary. 2. In 1876 he also obtained the construction of a pavilion with isolated chambers; and of 1223 deliveries which have taken place in this, only 6 have proved fatal—that is, less than a half per cent. Moreover, from May 29, 1879, to June 23, 1882, of 608 women who have been delivered therein, none have died. 3. Finally, in 1878 the antiseptic method was put into force.

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

By THOS. KING CHAMBERS, M.D., F.R.C.P. Lond.,

Honorary Physician to H.R.H. the Prince of Wales; Senior Consulting Physician to St. Mary's Hospital; Consulting Physician to the Lock Hospital.

WHEN I gave up lecturing at St. Mary's I was prevented by illness from taking a formal leave of the school. When I was well enough it was too late to do so. There seems to have been a sort of accidental propriety in the omission, for here I am again at my old post opening the session. "Introductories" are usually delivered by one of the working staff, preferably a junior member, who has at his fingers' ends all the details of the progressive art of teaching, and who would from this spot point out all the special advantages which you will enjoy at St. Mary's this year. I should blunder were I to attempt this; I have been too long off the road. I can judge only by results; I can be sure that St. Mary's is a good school only because I see it furnishing our country year after year with good practitioners. Debarred from effectively introducing you to St. Mary's and St. Mary's to you, according to time-honoured custom, I purpose to-day to enter upon new ground and discourse about the Medical Council. Of that I am the junior member, and therefore the right person to talk about it. It may be safely asserted that none of the freshmen know anything about the Medical Council, except that it has an office in Oxford-street, at which they are required to register their names at the beginning of the first session. But, however little you may think about the twenty-four members of this mysterious body, they think a great deal about you, and spend the major part of their time in learning about you and in making arrangements for your happiness and welfare. They are so peculiarly your friends that I hope you will feel more and more friendly to them during your pupilage and all your professional life.

The Medical Council, in its relation to education and to students, is not a legislative body, but strictly a council. Its business is to visit medical examinations and medical schools, and to advise them as to the method and completeness with which they perform their duties. In case of the advice being rejected, a report can be made to the Queen's Privy Council, who, if it sees fit, can disenfranchise the recalcitrant institutions. The action, then, of the Medical Council is one of influence, not of force. The distinction is of high importance, for if it ceases to gain influence, it will cease to have power, and very soon cease to exist. And if it ceases to deserve influence, it will very soon cease to gain it. As yet there has been no reason to complain of want of attention paid to advice duly tendered.

I will go through, in chronological order, the periods in his career at which the pupil experiences the effects of the Medical Council's action; and I will try to show how that action has been intended to be, and has been, for his comfort and happiness.

In the first place, the Council gets hold of all your names, with the schools you are attached to, and where you have been previously brought up. It finds what a large and worthy company you are, learns how many enter upon this interesting race, and how many arrive at the goal. If the number of these last is too few to supply the wants of the increasing population, it becomes the Council's business to find out the reason why, and consult how to remedy the deficiency. Above all things, it is solicitous that no injustice be done to the medical student, and that he obtains the fair reward of labour and intelligence.

Next it has been able, I am happy to say, to enforce upon parents and guardians the duty of bestowing upon you the inestimable boon of the sound preliminary education of English gentlemen. You need not fear now, as I did when I entered the profession, the having to mix with the sort of medical students that Charles Dickens drew from the life,—and very accurately from the life, as any medical man over sixty years of age can testify. The breed is about as extinct as the British wild bull or the great bustard. The rare remaining specimens are not allowed to run wild; they are crowded out by public opinion and by a superior race. The hospital student now is fit to be received into any society, feels himself not out of place in any club or drawing-room, and will act wisely in availing himself of the privilege whenever he gets or makes his chance. For I am sure that this society of English gentry offers the best opportunities for happiness, and the exercise of the manly virtues, of any in the whole world. Never forget that you are fit for it; carefully keep up all creditable acquaintances you have made at school or college, especially if their walks in life differ from your own; sympathise with their pursuits, and join as much as your business permits in their modes of relaxation. And do not forget that it is the action of the Medical Council during the last few years which has more than anything helped the student to this position. Those who have read—and who has not?—the vigorous delineations of life in the last generation which I have quoted, will have observed how impossible Mr. Pickwick and Mr. Wardle, with all their good nature and hearty sympathy with all that is human, found it to associate with the young "sawbones" in that veracious history. Just fancy Mr. Ben Allen and Mr. Bob Sawyer inviting their "sisters and their cousins and their aunts" to an evening entertainment! How those respectable persons would have resented the impertinence! Nowadays I find medical students have no hesitation in giving concerts and dramatic performances, for which ladies eagerly seek tickets and contribute personal help; and at your athletic sports the show of irreproachable bonnets with irreproachable faces beneath them is bewildering. May this habit of association with the best of the best nation in the world be kept up through life for you grow like what you mix with.

I will take this opportunity of giving you a few words of warning. Do not, on any consideration, make the mistake of accepting places as assistants before you have passed the qualifying examination. By so doing you will be mixing yourselves up with a set of men who have lost all ambition of being legitimate practitioners, who have degenerated into mere drudges, whose manners and morals and education unfit them to be your companions. You run the greatest risk of becoming like them and being equally despised; and by delaying your fitness for going up to the final examination, you are making your education more tedious, and therefore more expensive in the end. But when you have cleared examining boards off your minds, then indeed I do not know a more valuable part of education than can be got by a good assistantship. For, having learnt systematically and thoroughly how to learn, you will understand quickly the details of the application of your knowledge, and profit in direct proportion as you have not muddled your brains with those details beforehand.

They are selfish and cruel persons who try and tempt you to be unqualified assistants. They do it for their own dirty profit, and it is a very bad bargain for you. I have had a good deal of correspondence lately with those who have been unqualified assistants, and they invariably speak of it as their "misfortune."

The education you have been going through not only fits you to associate with those whom it is desirable for your happiness that you should resemble, by being of the same sort as theirs, but it also enables you to acquire more readily the technical knowledge and professional habits of thought for which you came to St. Mary's. It is for this reason that such a training of the mind is made preliminary to all intellectual pursuits. Parents will sometimes ask of what advantage it is to have their children taught dead languages, mathematics, history, and other things which, confessedly, they cannot use in curing patients. A few years ago there was quite a craze for what was called "useful knowledge," and a slur thrown on Latin and Greek as being "useless" in professional life. But the fact is, that no means has yet been discovered so potent for educating—that is, bringing out—the powers of the mind, as the grammatical study of these scientifically formed dead languages, especially if with that study be combined the concentration of the thoughts upon abstract ideas which is gained by mathematics. Is it useless to have the reasoning faculty made logical? Is it useless to be drilled in rapid classification of the matter in hand, so as to see the true points of a demonstration? Is it useless to be able to follow a course of

lectures so as to appreciate the principles of the subject taught, instead of carrying off in the memory a bundle of names and facts? The time spent at school and college on preliminary education corresponds to that which the farmer spends in draining, ploughing, and clearing his land, to what the artisan spends in sharpening his tools. I am quite sure it is wisely spent upon the subjects which are held to be necessaries by the Medical Council—namely, English composition and grammar, English history, modern geography, Latin, elementary mathematics and mechanics; whilst the voluntary subjects, among which you have chosen one to be examined in, afford a certain scope for variety of tastes and acquirements.

Others, without denying the value of the "necessary" subjects for improving the mental powers, are urgent to have introduced into the training curriculum a certain amount of those sciences which now form part of the professional course. As a compromise, two—botany and elementary chemistry—are made voluntary subjects, because it is thought that the principles of these sciences may be made the means of improving the intellect in logical classification. But this compromise is a provisional experiment, and does not at all alter the rule that your studies hitherto have had for their object, to refine and discipline the intellectual powers, and not to provide knowledge capable of application to professional life.

You come, then, to-day to your work with intellects prepared to receive and to nourish the good seed, with tools sharpened for shaping the details set before you into the forms best suited to your idiosyncrasies. Thenceforward the action of the Medical Council has a more direct influence over your daily life, and is more directly conducive to your comfort and convenience. Your ancestors saw before them a list of subjects to be mastered during pupilage in a time varied according to circumstances, to be studied in no prescribed order, to be presented all at once at a final examination—or rather at *two* final examinations, if you wanted to show yourselves qualified to practise medicine as well surgery, as most do. This final examination, conducted necessarily in a hurry, racing against time, bewildered the examiner, who felt the greatest difficulty in drawing out what the candidate really knew, and in distinguishing between memory of words and knowledge of things. Still more did it bewilder the student, terrified him not without reason, and hung over him like a sword of Damocles through all his career. To abate this serious evil the Council recommended the substitution of several examinations for one, and their recommendations are being carried out by the licensing bodies. Perhaps to some it may appear at first sight that this is worse and worse; it is hanging out several swords instead of a single instrument of terror. But that is a superficial view of the matter. It is in reality a dilution of the single examination, which, by being spread over several years, ceases to be a legitimate object of fear altogether. Much more time is given to the actual testing process, and thus you have fuller opportunity of bringing out your acquirements, and showing that you have enough to entitle you to practise. Moreover, the order of the examinations guides you as to the order in which you can best study in the various departments, and thus time is saved, and the risk of having to go over the same ground twice is avoided. The licensing bodies have fully recognised the principle involved in the advice tendered them, and have all divided their test for diploma to a certain extent, and some have already adopted completely the scheme of three professional examinations at three separate periods of student-life, as suggested in the Recommendations of 1869. If my pupilage were to come over again, I should certainly select as the body to examine me that which most divided its examinations. I am sure I should eat, drink, and sleep better after each crisis; and I should breast my future studies with double effect when I felt I had surmounted the most difficult steps of the ascent. And I should feel grateful to those who gave me the most leisurely attention, and listened the most patiently to the demonstration of my accomplishments.

Perhaps it may contribute to modify your unfriendly attitude towards us poor examiners if I make a remark which never struck me till I myself became one, but the truth of which has during more than twenty years of that work been strongly impressed upon me, namely, that his business is to discover knowledge, not to expose ignorance; to find out what a candidate knows, not what he does not know. I should have been a happier student if I had understood that his aim was inclusion, not exclusion.

Do not think I am counselling a low aim when I urge you to make success in examinations the goal of a student's ambition. It is as a director of your industry that I point to it as a notable step in progress; and your industry must be kept alive by the higher motive of duty to your family, your country, and your God, or it will die barren. But of this I am sure it is not necessary to speak here. The examinations are framed to encourage and, as far as they can, to enforce such a course of education as fits a man for after life, and the utmost care and watchfulness are expended in providing for the fulfilment of that object. Believe me the system is worthy of full confidence. When you are preparing for examinations you are preparing in the most certain and rapid manner for success in your profession.

And now, my dear colleagues, I have a few parting words to say to you. Your responsibility is very great; yet it is not too great to be borne by the exercise of the simple commercial virtues of "sobriety, punctuality, and attention to business." Let your "sobriety" be known unto all men in deed, in thought, and in speech—especially in speech. Words, as Homer tells us, have wings, and they fly to the extremities of the world. You can hardly fail to have been startled, if not awestruck, by the quotation of some chance sentence of yours out of a lecture or conversation, in the mouth of an old pupil or pupil's pupil; it may reappear in the colonies, or come back from America. Take care, then, that it is a true message which thus travels forth. Avoid all exaggeration, paradox, or inexact illustration, however brilliant. Be assured it will haunt you, and crop up just when you least desire. "Punctuality" is the homeliest of virtues, but the neglect of it by teachers is visited with very public loss of reputation. Pray remember that every minute students are kept waiting is most likely occupied in criticising you, and in commenting—not favourably, sometimes not quite fairly—upon your person, your manners, and your teaching. I will leave you to judge if that conduces to your influence for good. "Attention to business" is an expression which seems to demand an opinion as to what your chief business is. "To make our pupils the best and safest practitioners that the time afforded us allows of their being made." But teachers differ somewhat as to the surest mode of attaining this end; and possibly some of you may dissent from my concluding sentences, but I feel confident that even then you will not take them amiss. I will say plainly the teacher's wisest course is to keep examinations constantly in view, in respect of the extent, the matter, the quality, and the manner of his teaching. Observe the signs of the times; examination as an engine of education is becoming annually more and more powerful. Wisely or unwisely—I will not stop to discuss which—all estates of the realm and all orders of men in England are agreed in reposing their confidence in it. As always happens in this country, trust has begotten a strong resolve to deserve trust; and I feel sure that the schemes of instruction suggested by the medical examining boards are the best guides we can have as to the prominence to be assigned to separate branches of study. It were as well, perhaps, if the quantity of knowledge demanded in certain progressive sciences—such as physiology, for example—were more limited and defined, and if it were made clear that in anatomy principles rather than details were sought for, and that accuracy of understanding is held preferable to superficial dealing with a wide area of facts. In truth such is the case actually, but the licensing bodies have not yet formulated their custom.

A frank submission to the mastery of the inevitable examiner will, I expect, lead in the end to changes in the method of communicating instruction. It must be less professorial, and more catechetical or tutorial. I mean that a considerable portion of the time devoted to each study should be occupied in question and answer on matter previously prepared by the class. The subject, got up first from a text-book by the pupil, should be explained and enforced from the chair; not, as of old, given out fresh from the chair, and learnt up by notes afterwards. The catechetical method gives a shrewdness in catching the point of a question, and a facility in answering it, which contributes greatly to success in examinations, and to readiness in the emergencies of future life. And by bringing the minds of the two into more immediate contact, it gives the

teacher the power of measuring the progress of his pupil, and declaring when sufficient advance has been made to sanction the issue of a certificate of sufficient attendance. If a man has diligently worked up a subject, so as at any period of the course to show an acquaintance with its principles which will justify the Dean in thinking him capable of passing his coming examination, I would at once exempt him from the class. This would be a sharp spur to early diligence, and would insure the presence of minds, as well as bodies, on those benches. Students complain, not without reason, of the number of lectures they have to sit out, and of the days broken up into fragments and consumed. If you adopted this plan, the remedy would be in the student's own hands; for each one would only have to show that he had mastered his subject to be free during the rest of the session for reading or ward-study at his will. The examining boards would be ready enough to co-operate, for you would be relieving them of a part of their burden, and making the painful necessity of rejection much more rare.

Since licensing boards have universally afforded students the opportunity of showing their practical skill in the clinical examination of patients and in ward-work, the acquirement of that skill has become yearly more and more an essential feature of education. Here the smaller medical schools have a great advantage over the larger, to which they would act wisely by calling the attention of the public. For it is impossible to instruct professorially in this department; that the classes should be small is a *sine qui non*, and the teacher necessarily becomes a tutor. I trust you are persevering in your determination to divide widely the pupils in the wards among as many tutors as possible. A clinical class can hardly be too small.

I am satisfied by observation, not limited to medical schools, that the catechetical is, of all methods, the most sure and effectual method of teaching Englishmen.

I should not have dared to say so much had I not seen tentative efforts made here to introduce the principle I have advocated. To succeed, these efforts must be *combined*; and, my young new friends, they must be *co-operative*. Assistance on your part, hearty and forbearing, must be given, or the experiment will not be a fair one.

Now a last farewell must be said to the old chair I can no longer occupy. Many of the happiest hours of my life have been spent in learning, many in teaching, and I wish you all round "more and merrier."

THE SUBCUTANEOUS INJECTION OF ETHER.—It should be more generally known that ether injected subcutaneously has a powerful stimulant effect, and is remarkably efficacious in cases of extreme depression of the powers of life. It has long been used to a limited extent in such cases; but increased experience has enlarged the domain of its application. In adynamic pneumonia, in fevers when failure of the vital powers is threatened, in the puerperal state, in cases of thrombosis of important vessels, it has been lately used with singular benefit. It has also important applications as a hypnotic and local anodyne. In cerebral excitement and wakefulness, accompanied by depression of the arterial circulation, it is most useful. In the more chronic cases of superficial neuralgia, in sciatica, lumbago, intercostal pain, zoster, etc., ether injected near the affected nerves often gives surprising relief. There are contra-indications to its use, as in cases of cardiac depression due to chloroform or ether narcosis. Alcohol is also improperly used under these circumstances. Ether is unsuitable when there is arterial excitement with power. As ether destroys the oil with which the piston of the syringe is lubricated (vaseline is best suited for this purpose), the syringe should always be put in order after injecting. From ten to sixty minims may be injected, fifteen being the usual dose. The smarting from the injection is much obviated by pressing on the orifice while withdrawing the needle, so as to prevent the ether escaping. The ether may be used three or four times a day in adynamic pneumonia; but when sudden extreme depression of the heart has to be overcome, ten or twenty minims may be injected every five minutes, until some result is attained. The curative results are not only different in degree, but in kind, from those derived from the administration of the ether by the stomach—a fact which must be recognised in order to obtain a correct notion of the utility of this practice. —*Phil. Med. News*, September 2.

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF

THE UNIVERSITY COLLEGE FACULTY OF MEDICINE.

By MARCUS BECK, M.S., F.R.C.S.,

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GENTLEMEN,—It having fallen to my lot to deliver the customary Address at the commencement of the present session, I have thought I could not better employ the time than in pointing out to you some of the theoretical principles upon which modern medical education is supposed to be conducted, and the reasons why the practice does not as yet for all students quite correspond with the theory.

Medical education, as we understand it now, is of comparatively recent origin. At the beginning of this century the profession was divided into distinct grades. There were, first, the physicians, who had, as a rule, received such scientific education as was to be obtained at that time. They had mostly attended lectures at one of the English or Scotch Universities, and spent some time in practical study in a hospital. Then there were the surgeons, licensed by the College of Surgeons, then just founded in its present form. These also had received some education in anatomy and surgery. Lastly, there were the apothecaries, and to them fell the larger share of medical practice of the time. It was not uncommon, however, for these two last to be joined together in the person of one man, forming the surgeon-apothecary, who was the precursor of the modern general practitioner. The practice of the apothecaries differed from anything we have within the limits of the legitimate medical profession in the present day. They were essentially prescribing druggists, and their custom was to charge only for the medicine they prescribed. Thus they could receive no remuneration unless they ordered some medicine, and the more they ordered the more they got—a style of practice calculated to inspire a firm belief in the efficacy of drugs. It was not necessary for the apothecary to receive any medical education beyond being apprenticed to some one already in the trade, and the jurisdiction of the Society of Apothecaries, which necessitated even this amount of training, only extended to a distance of seven miles round London.

That the greater part of the practice of the country should have been in the hands of men like these seems to us now rather surprising, but we must not forget that even as late as the end of the last century Science had not reached such a point of advancement as to make it a trustworthy guide to practice. The study of human anatomy was doubtless more advanced than other branches of medical knowledge, but even this was very far short of the perfection it has now reached. In chemistry, oxygen had only been discovered for some twenty years, and the atomic theory had not as yet been established. The work of John Hunter and Baillie had raised morbid anatomy to the rank of a science, but, from want of proper instruments, investigation into the finer processes of disease was almost impossible. In medical practice almost all the means of physical examination now in constant use, and without which we should feel it impossible in a great proportion of cases to make a diagnosis, were unknown. Auscultation, percussion, the use of the thermometer, the accurate chemical examination of the secretions, had yet to be invented, and the medical man had therefore little to do but to feel the pulse, look at the tongue, and listen to what the patient had to tell him. Surgery being to a great extent dependent on anatomy, was, in some respects, more advanced than Medicine; moreover, wounds and injuries require no special means of observation for their diagnosis.

At this time, therefore, Science being of but little assistance, the apothecary was chiefly guided in his practice by empirical knowledge, handed down from generation to generation, and it was but natural that a long period of apprenticeship was considered the best means of acquiring such knowledge. The pupil was, as a rule, apprenticed at a very early age, and his term of service lasted from five to seven years. His master during this time initiated him into

the art and mystery of healing, taught him to bleed, and to compound medicines; and from an early period it was his duty to attend to such patients as were willing to trust themselves to him. Being necessarily at first very ignorant, he thus learnt one thing, at any rate, to perfection, and that was the invaluable art of concealing his want of knowledge from the patient; and he probably learnt it much better than he would have done had he been troubled, as the young practitioner now is, with sufficient knowledge to raise in his mind any doubt as to whether he really knew what was the matter with the patient or not. Education by apprenticeship was, perhaps, fairly adapted to the knowledge of the time. It was useless for a student to spend years in the study of sciences which were not sufficiently advanced to be of any real practical service to him in his profession, and the mental training he would have derived from such a course of study would have been of but little use to him, when, from the insufficiency of the means of observation at his command, it could seldom have been possible for him to arrive at a conclusion as to the nature of a case by any logical process of reasoning. Perhaps his experience while an apprentice enabled him to jump to a conclusion as to what drug would best suit a given case as well as all the Science of the time could have done. The instruction communicated to him by his master included a great deal that was true and useful; for, much as Science has done for us since that time, we are still as yet very far from being independent of traditional and empirical knowledge. The want of scientific training to instil a wholesome spirit of disbelief enabled the pupil to receive what his master taught him in faith, and to believe it with an earnestness rare in the present day. It was this that made him afterwards honestly believe that he knew a great deal in spite of what we should now consider his lamentable ignorance, and prevented his becoming the mere impostor that he is sometimes accused of having been. Under such a system of training it was, however, impossible for any but men of great original genius to break away from the trammels of tradition, and to take any part in the advancement of knowledge.

Yet the advance of medical knowledge at the beginning of this century was not without its influence on the lower branches of the profession, and many of the surgeon-apothecaries began to feel it a disgrace that so large a number of their branch of the profession had never received any proper medical training, and consequently, a society was formed, called the Association of Surgeon-Apothecaries of England and Wales, the object of which was, in their own words, "to improve the education of and render more respectable their own body." The effect of this agitation was the extension of the jurisdiction of the Society of Apothecaries to the whole of England and Wales; and after that no person was able to start in practice as an apothecary without having undergone a proper examination. From this time the old system of education gradually underwent a transformation. At first the period of apprenticeship was fixed at five years, the whole of which might be spent by the pupil in the service of his master. About ten years later it became the custom for every student to spend at least one year in a regular medical school. In 1826, this College, then called London University, was founded, and for the first time a systematic scientific education was given in London on essentially the same lines as are followed to the present day. Influenced by the example of this College, other schools quickly improved their arrangements for conducting the education of every student upon scientific principles. As the amount of scientific knowledge expected from the student increased, so it became necessary to prolong the time spent in the medical school at the expense of the period of apprenticeship. Twenty years ago it was the custom for the majority of students to spend one year, or sometimes two, as apprentices, and three years in the medical school. Now the change is almost complete, and it is rare for any student to be bound apprentice. The real cause which has been at the bottom of this change is that Science has now so far advanced as to become an actual guide to practice, and, consequently, Medicine and Surgery can no longer be properly taught on the old empirical principle, but must be studied as sciences.

The change, however, from the old system to the new having been the result of a series of compromises, has succeeded in producing for the ordinary student a course of study which corresponds but imperfectly with the laws of scientific education. The amount of knowledge in every branch of Medicine, and in each of the allied subjects, has enormously increased, and every student now has to learn a great deal more than was expected from his predecessors of twenty years ago; while at the same time there is no reason to believe that the human intellect is increasing in capacity. How, therefore, to enable the student to acquire such a proportion of the increased sum of knowledge as to justify him in considering himself even decently educated, has become a problem of no little difficulty. At present the examining boards require from the student a standard of knowledge which, unfortunately, many find it difficult to attain to; but it is not because it is too high that they cannot attain unto it. The standard has only been raised proportionally to the increase of knowledge, and the student will doubtless feel inclined to say with Solomon, "He that increaseth knowledge increaseth sorrow," for it is a serious fact that the proportion of students rejected at their examinations has correspondingly increased as the standard has been raised; and it is not now only the hopelessly lazy, or those who have some natural difficulty in acquiring knowledge, that are rejected, but the industrious student of fair abilities often meets with the same fate. Since in an evil hour the Royal College of Surgeons commenced the publication of the numbers passed and rejected from each school, it has become the custom in some places to submit the student to a test examination of equal severity to that of the College before signing the necessary schedule. By this means an apparent improvement has been obtained in the work of some schools, but it seems to me to matter but little to the student whether he is plucked by his teachers or by the examiners. This test examination, it is needless to say, has been devised for the benefit of the school, and not of the student—ignoring the fact that the school is made for the student, not the student for the school. It has never been instituted in the College, and I hope it never will. The real effort to meet the higher standard must not be by such tricks as these, but by adopting the best possible course of training to enable the student to think well and correctly, and so more easily to acquire the necessary amount of knowledge; and in this we must be guided by the laws of scientific education. These laws are founded on certain principles now more or less generally recognised as true. The first of these is, that those manifestations of the functions of the brain which we call the mind are as capable of being improved in quality and order by training as are our muscular movements, and that just as those wonderful co-ordinated movements involved in playing a complicated musical instrument can only be acquired by commencing with the simpler exercises and gradually increasing their complexity and variety, so in training the mind the course of education must proceed from the simple to the more complex subjects. Thus, in a scientific education, the study of the exact sciences must precede that of the inexact. Another principle of equal importance is that in estimating the value of a given subject we must take into account its influence in mental training as well as its direct practical utility in the business of life. The material with which the teacher has to deal no doubt varies greatly. There are some few happy individuals, possessed of true genius, who can acquire knowledge even under great disadvantages, and whose minds are by nature accurate and logical; and for these systems of education are of but little importance. Of this class, perhaps, John Hunter formed the most conspicuous example. With the vast majority, however, a correct mode of observation and thought is only acquired by proper training. A man of ordinary intelligence, but devoid of mental training, possesses a mind liable to lead him into error in many ways. He is unable to observe any but the simplest facts correctly, and, supposing facts of any complexity are placed before him, he is unable to draw correct conclusions from them. Should he attempt to generalise he is almost certain to fall into the error of drawing general conclusions from insufficient data; and premature generalisation is worse than none at all. In the history of Medicine innumerable instances of this fallacy in reasoning are to be met with, but I am afraid we need not go back to history to find examples. From the want of sound generalisation to consolidate his knowledge, the learning of such a man is composed to a great extent of isolated facts, and consequently, unless he is blessed with an exceptionally good memory, it must be somewhat limited in extent. Undue credulity, especially under the

influence of educational or emotional bias, is another natural failing only to be corrected by proper mental training. The spirit of disbelief thus cultivated by scientific education is not perhaps an unmixed source of satisfaction, as it often leads us to demand evidence and to find it wanting, when we would gladly for our peace of mind be allowed to exercise a little faith. In reading the works of many of the writers of the last century, it is difficult not to envy their simple faith in the useless drugs with which they drenched their patients. Perhaps nothing, however, marks the difference between the trained and untrained mind more than the instinctive way in which the former turns immediately from an effect to think of and search for its cause; and as our only hope of ever raising medicine to a true science lies in our fully understanding the causes of the various diseases we are called upon to treat, the value of this effect of proper mental training can hardly be over-rated. Lastly, in any proper system of education some attention must be paid to classification, so that the knowledge acquired may be methodically arranged and immediately ready for use when required. In no branch of knowledge is a proper training more needed than in medicine. In no science are the facts to be observed more numerous or more difficult of observation; in none is the plurality of causes and the intermixture of effects more marked: and upon the correctness of the conclusions we draw from our observation depends frequently the health or even the life of a fellow-creature.

The practical application of these principles is perhaps best exemplified by the course of education prescribed by the University of London for its medical degrees. This has remained practically unchanged for twenty-two years, and the influence of its example on other examining bodies has been productive of great improvements in medical education. The essential feature of the system is, that before commencing medical study proper, the student shall receive a thorough training in the allied sciences. Each of the subjects comprised in the preliminary scientific examination is supposed to possess some special influence in cultivating a correct habit of thought and observation, in addition to its direct value in the practice of medicine. Chemistry and Physics illustrate in their simplest form the mode of arriving at truth by observation and experiment; they show the precautions necessary to avoid error; the mode of arriving at general laws, and the dangers of premature generalisation. They impress upon the mind the necessary relations of cause and effect, dealing as they do to a great extent with conditions in which the causes are few and their effects clearly defined.

Botany and Zoology teach the student the art of observing details accurately, and train the mind in methodical arrangement and classification of facts; and, as Bain says, "to learn to classify is in itself an education." Zoology and Comparative Anatomy also form an excellent introduction to human anatomy, and the study of the simpler structures and functions of plants prepares the student for the more complex subjects of human histology and physiology.

The direct practical utility of these subjects varies considerably. Without some knowledge of physics and chemistry it is impossible for any man to study or practise medicine intelligently. Botany, including as it does the study of the lowest forms of vegetable life, which take so prominent a place in the pathological theories of the present day, has some direct influence on medical practice; but its value in other respects is not what it was, when "every green thing from the cedar to the hyssop" was supposed to possess some medicinal virtue, and when the apothecary in remote country places frequently gathered and prepared for himself the bsher that formed the chief part of his materia medica.

For Zoology and Comparative Anatomy it is, I am afraid, almost impossible to claim any great practical utility. The exact knowledge of the anatomy and life-history of the various parasites that infest the human body has done something to enable us to prevent their attacks, but even in this respect it is far behind botany. If any subject had to go from this part of a medical education, Zoology and Comparative Anatomy would probably be generally considered the one. As a training in observation and classification it is not superior to botany. To teach it properly a museum and dissecting-room are necessary, while botany can be taught very sufficiently without any such means. The time required for botany is less than that for comparative anatomy: the dissection of a plant takes only a few minutes; that of the simplest animal can scarcely take less than one hour, and often many hours of patient labour. It is not likely, therefore, that zoology could ever be made a compulsory subject in an ordinary medical education; at the same time it would be a most grievous error to exclude it from the subjects required for the higher qualifications.

In addition to the practical and educational value of these two subjects, it must not be forgotten that they form amongst the most delightful forms of relaxation from the worry of medical practice, and the monotony of the life of many a country practitioner has been relieved by their help.

A student who has been thus prepared by a short preliminary course of science, commences the study of the more special subjects of the medical curriculum with a mind trained to a proper habit of thought, prepared to follow the inductive reasoning upon which Medicine is founded. He is sufficiently trained in habits of observation to commence without difficulty the study of anatomy and histology, and his knowledge of chemistry and physics will be sufficient to enable him to understand those parts of physiology to which these sciences are essential.

I need not follow further in detail the course of education according to this plan; the same system is followed to the end. The student does not commence to study the diseases of the body till he is familiar with its structure and functions in a state of health; and in studying disease he is encouraged to apply himself to Medicine and Surgery simultaneously, in order that he may learn that the same general principles apply to both, and that they are, in fact, merely branches of the same science.

The fault of this system of education a few years ago was that it was too theoretical, and contained nothing in it to take the place of the practical instruction given so abundantly in the old system of apprenticeship. This has, however, of late years been corrected by the institution of practical classes, and compulsory hospital appointments, until, at the present time, I am inclined to believe that the student gets quite as much practical instruction in every branch of his profession, except pharmacy, as he did under the old system.

Although the University of London, being unfettered by any previous system of education, was able thus to establish a scientific course of training according to the best theoretical principles, it has been otherwise with the corporations, and the consequence is that the education of the student, whose object it is merely to obtain a licence, is now conducted on principles which do not agree accurately either with the old empirical or the new scientific system, and, consequently, he does not get the full advantage of either. The great majority of students in the present day begin medical study immediately after they leave school, having first passed one of the preliminary examinations conducted by one of the corporations, or farmed out to them by the College of Preceptors. This examination includes no science as a compulsory subject except the rudiments of mathematics, which, although of course a useful training in methodical thought, is, as a purely deductive science, of comparatively little value as a preliminary training for medical study. A student, therefore, who has passed only the compulsory subjects, arrives at his medical school without any preliminary training in Natural Science. He finds then that he is expected to attend three classes during his first winter session—Anatomy, Physiology, and Chemistry. One of the first things he will learn also is, that if he follows the course most commonly adopted, the first examination for which he will have to present himself is the Primary at the College of Surgeons, and that this includes two subjects only—Anatomy and Physiology,—and will not take place for two years. Upon these two subjects, therefore, he concentrates his attention, in but too many cases neglecting Chemistry more or less completely; for I fear it may be said of most of us that the fear of examinations is the beginning of wisdom. In Anatomy, with a mind totally untrained in accurate and minute observation, he begins by trying to learn the infinitude of details concerning the bones; and it is not to be wondered at if he finds it not only a difficult but a distasteful task. The study of Descriptive Anatomy, however, makes no demand upon any of the higher faculties of the mind, and consequently preliminary mental training is, as far as it is concerned, of comparatively little importance; and if the student will only give time and attention to it, he will almost certainly succeed in reaching the

required standard of knowledge; although, perhaps, he will not master the subject as quickly and easily as if he had had some preliminary training in biological science.

Physiology being a subject full of fascination and interest, should naturally be very attractive to any student who takes real interest in his work; but, unfortunately, it consists in great part of the application of chemistry and physics to the study of life, and the ordinary student is at first ignorant of both these subjects; it is therefore impossible that he should gain more than a confused notion of what he tries to learn. From this point of view of mental training, Physiology—valuable as it is in its proper place—is perhaps the very worst of all subjects with which to commence a scientific education. It is not an independent and self-contained subject, nor has it as yet acquired, or is ever likely to acquire, a place amongst the Exact Sciences; and it is a rule of scientific education that some training in the exact sciences should precede the study of the inexact.

Thus, then, we have a large number of our students started on their medical education badly, and the consequence is that they spend a great part of their first year of study in learning how to learn, and doing that imperfectly. From want of training in generalisation and classification, their knowledge consists merely of a mass of disconnected details, and the strain upon the memory becomes correspondingly great. A thorough and clear comprehension of a subject is essential for its easy acquirement; and without some knowledge of Chemistry and Physics it is impossible to understand a great part not only of Physiology, but of Medicine and Surgery also. The evil habit of thought which is cultivated by this irregular training in the early part of study, persists throughout the whole course, and the difficulty experienced by the student in passing the primary examination is exaggerated in the final, as that includes no subject like anatomy, in which mere memory is of as much value as logical thought.

In order to obtain a double qualification, however, the student has to present himself for this examination at the College of Physicians, or the Apothecaries' Hall, and it is very common for this to be done after the College of Surgeons is finished. Consequently we often find him preparing for examination in Chemistry and Botany some two or three years after he attended the classes on these subjects, and at a time when it is too late for him to derive that mental training from them which should have assisted him in his course of study. Some effort to remedy this evil has of late been made by the College of Physicians, by the institution of the new examination to be passed at any time after registration. This, no doubt, is a step in the right direction, in so far as it encourages the student to pass his Chemistry and Botany at as early a period as possible of his medical study. But, on the other hand, it seems to be specially designed to encourage him to spend some time in a sort of modified apprenticeship before commencing his work at a medical school. Now, if the object were to re-establish the old prescribing druggist, as he was before the apothecary developed into the general practitioner, nothing could be better; but if the future licentiates of the College of Physicians are to be educated as men of science, the introduction of a period of desultory work without any proper teaching between school and college can do nothing but harm. The botany also, which he is to learn, is defined as Medical Botany. Now, the only justification for retaining botany in the early part of a medical curriculum is, that of all subjects it gives the best training in the accurate observation of simple facts and in classification, and unless it is taught as a science with this object, quite irrespective of its supposed utility in Medicine, it might just as well be omitted altogether. Although, therefore, the examination is doubtless a relief to the student, by enabling him to get rid of some troublesome subjects during his first year, it is not likely to do much to improve his training from a scientific point of view, and I believe it is only by an improved training that we shall be able to diminish the lamentable proportion of rejections which forms almost a reproach to our medical teaching. Up to the present time, however, the attempt to meet the higher standard required at the examining boards has been chiefly by increased quantity of teaching, and at the same time the mode of teaching has become more practical and demonstrative. At the time I was a student here, there were no demonstration classes in anatomy, the class of practical physiology had not been instituted, and there was no class of practical zoology. Voluntary classes in operative surgery and bandaging existed, but the practical surgery class, as we now have it, was not founded till ten years later. At the Hospital, the only practical instruction given in surgery was the bedside teaching, supplemented by a few clinical lectures rather theoretical than practical. In the medical wards, students wrote reports on cases, which were corrected by the Professor of Clinical Medicine, but no classes had been instituted for practical instruction in the rudiments of medical diagnosis. Now we have changed all this, and practical classes crowd upon each other, till it becomes almost impossible to find time for them all in the nine hours of the day during which the College and Hospital are open. The practical classes in medicine and surgery have no doubt become necessary to replace the teaching that the student formerly received during his apprenticeship; but in other subjects they have been instituted solely with the view of improving the quality of the teaching, and enabling the student to reach the higher standard of knowledge required of him. The result so far, however, has not been to diminish the number of rejections. These still continue in unabated numbers, and will continue, I believe, as long as the present irregular system of education is followed by so large a number of our students. While we expect students to understand the most complicated mechanism in creation without a knowledge of the rudiments of mechanics, to understand the eye and ear without optics or acoustics, or respiration without knowing the laws of atmospheric pressure; while we expect him to understand the chemistry of digestion, almost before he knows the difference between an element and a compound,—I do not think we can hope for any real improvement in the results of the examinations. It is, I believe, only by a better preparation in science, and by a rearrangement of medical examinations in accordance with the laws of scientific education, so as to train the student to think, and to think well, that we can hope to get any real improvement. To this course, however, many objections have been raised, on the grounds that it would add more subjects to the medical curriculum, which, in the opinion of some, already includes more than are necessary; that it would lengthen the period of medical study, and would add another examination to those with which the student is already burdened. Finally, there are some still to be found who deny the utility of science and the value of mental training.

To take these objections in order. First, that it would add another subject to the medical curriculum. I have before said that zoology, although forming an extremely valuable training for those who have time to avail themselves of it, is not essential, and there would be nothing to justify adding it to the ordinary course of medical study. Natural Philosophy would, therefore, be the only subject which would be added to those already in the curriculum. Now, at the present time, students are expected to know at their examinations all those parts of natural philosophy which apply to physiology, and to the explanation of various morbid processes both in medicine and surgery. We cannot say therefore that it would be added as a new subject. It would be merely taught methodically, and would prove an assistance to the student in his course of study, rather than an increased difficulty. It is sometimes assumed by those who complain of the number of subjects in the medical curriculum, that the student is expected to learn each thoroughly. To learn any subject thoroughly is the work of a lifetime. All that can be expected from a medical student is, that he shall learn the general principles of the various sciences auxiliary to medicine, and shall attain such an amount of knowledge of each, that he shall not be altogether lost when he has to apply them to practical medicine or surgery, and that, if necessary, he shall know what book to refer to for further information, where to look for what he wants, and, when he has found it, that he shall be able to understand what he reads. This amount of knowledge, besides being all that is practically useful, is quite sufficient to give an amount of mental training which will be of great service in further study. The objection, therefore, to a scientific course of study, that it increases the number of subjects in the curriculum, seems of but little weight.

With regard to the lengthening of the period of medical study, the objection also is more apparent than real. If the period of study were lengthened from four to five years, it need involve no hardship. The preliminary examination in

general education may be, and very frequently is, passed at the age of sixteen. The most difficult of all the entrance examinations—the matriculation at the London University—is passed best by well-prepared boys between sixteen and seventeen. Now, all those who pass at this age must wait five years before they can obtain a licence to practise. To these, therefore, it would be no hardship to spend a year in the study of the preliminary sciences. Moreover, if it were understood that a year had thus to be spent, it would become the custom to send the candidate up for the entrance examination at the earliest possible age. Of course it is much better that the general education should be continued till seventeen or eighteen, but I am only discussing the case of those to whom it is of importance to gain a legal qualification at the earliest possible time, and for them the luxury of a prolonged general education must be dispensed with. It must not be forgotten in discussing this point that a very considerable number of students are obliged, through misfortunes at their examinations, to lengthen their period of study, sometimes to seven or eight years. The number of these unfortunates will probably in the future be greatly increased by the new regulation of the College of Surgeons, which places a compulsory interval of two years between the primary and the final examinations. To many of these, I believe, a period of compulsory training in science would prove a real assistance in shortening their time of study, by enabling them more easily to acquire the necessary knowledge. And supposing the period of study were actually lengthened by a year, we should still be only returning to the old period of apprenticeship, which lasted five or even seven years. The student himself should, perhaps, be the last to complain of any prolongation of the time of study, for, if he did but know it, his time at college will probably be the pleasantest part of his life. An examination now and then, no doubt forms a hateful incident during its course, but the real troubles of life begin when the last examination is passed. An examination is no great trouble to a student if he is properly prepared for it, and the addition of a simple preliminary examination in science would, I believe, for the reasons I have already given, tend to make it more easy to prepare for those that follow.

Lastly, we have to consider the objections still occasionally raised to the modern system of education, that the value of mental training is more an idea than a reality; that Science is of no direct use to the ordinary practitioner; and that, on the contrary, a scientific education tends to make a man unpractical. To deny the value of mental training seems to me to be evidence of want of it on the part of the person who does so. The argument usually employed is that men are to be met with who go through a thorough course of scientific training, and come out at the end as illogical as they began; and, on the other hand, it is not uncommon to meet with those whose scientific education has been defective, and yet whose mental faculties are developed to a high degree. All those who have been engaged in medical teaching must be familiar with examples of both these conditions; and those who undervalue mental training have usually at their fingers' ends half-a-dozen instances of each kind to be brought forwards as conclusively proving their views. The fallacy of the argument lies first in the assumption that those whose scientific training has been defective would not have been better had their minds been more correctly cultivated; and, secondly, in drawing the general conclusion that training is of no use, from the exceptional cases in which it has failed to produce the desired effect. I feel myself no doubt whatever that those men learn their Medicine and Surgery more quickly and more thoroughly who have undergone a proper preliminary preparation in Science. Those who manage to distinguish themselves at examinations, and yet remain illogical and unpractical, are, as far as my experience goes, those possessed of a memory of unusual retentiveness—a faculty which is not necessarily associated with a high order of intelligence. There is, I believe, at the present time a hopeless idiot in Earlswood Asylum who possesses a memory of such extraordinary power that he could, if properly coached, be easily made to take first place in almost any competitive examination. It is a slighter degree of the same error in mental development that produces the form of mind which furnishes the stock argument of the opponents of mental training.

Of the value of Science in the practice of Medicine and Surgery there can be no doubt.

In the first place, to the ordinary practitioner, Chemistry, and a certain amount of Natural Philosophy, are essential if he is to undertake intelligently the practice of Hygiene—now as important a department as either Medicine or Surgery. The post of medical officer of health is one, at the present time, open to every medical practitioner, and often furnishes a welcome addition to the somewhat narrow income of the country doctor. In this post he will be expected to undertake the simpler tests for adulterations of food and the purity of water, and he will be required to give advice on questions of ventilation, heating and warming, and on numberless other subjects in which some knowledge of Science is involved. But the innumerable applications of Science to modern Medicine and Surgery are of no less importance. With regard to Medicine I would not venture to speak, but I have no hesitation in saying that the wonderful advance which has been made in Surgery during the last twenty years has been entirely due to the application to it of Science, and the scientific methods of investigation. During that period Surgery has made more real progress than at any previous time in its history; and this progress has been chiefly due to the discovery of the nature and causes of surgical fever, and of spreading and infective inflammations. It commenced as late as 1866, by the application of Pasteur's discoveries to practical surgery by Mr. Lister. For centuries before this time the necessity of cleanliness in wounds had been well known, and antiseptics had been employed by all surgeons in their treatment down to the early part of this century; but so little were their properties understood, and so doubtful had been the advantages derived from their use, that at the time I was first a dresser in another hospital, twenty years ago, they had been almost completely abandoned, and wounds were treated either by the application of dry lint, which was removed when the smell became intolerable, or by placing over them a piece of lint soaked in simple water and frequently changed. Water alone, without the addition of any antiseptic, was used to wash away the discharges. It was only when the discoveries of Pasteur showed us that so-called clean water is in fact one of the dirtiest things in nature, that this treatment was abandoned. In fact, the simple-water dressing, which was boasted of as the perfection of simplicity and cleanliness, was the very best application that could possibly have been used, had it been the surgeon's object to favour putrefaction in every possible way. Yet while the treatment was being adopted, and it was possible to tell by the smell alone whether you were in a medical or a surgical ward, surgeons were constantly insisting upon cleanliness as the most essential feature in the treatment of wounds—so little idea then existed of what true cleanliness is. Dirt at that time, in the form of putrefying discharges, was considered inevitable; cleanliness consisted in clearing away the decomposing matter: the higher scientific idea of cleanliness, as consisting in the absolute prevention of decomposition, was impossible till Pasteur's great discovery had shown us what decomposition is due to.

About the same time that Mr. Lister was introducing the antiseptic system of treating wounds, Bergmann and others were, by carefully devised experiments, proving the fact that the high fever which almost invariably accompanied all large wounds and severe injuries was due to the absorption by the surface of the wound of the chemical products of putrefaction contained in the decomposing discharges. The investigations into inflammation and the allied processes were at the same time establishing as a pathological fact the absolute necessity of an abundant decomposable serous exudation from the raw surface of a wound during the first few hours after its infliction. To provide a sufficient exit for this discharge by a proper system of drainage became, therefore, an essential feature in the scientific treatment of wounds. Drainage, like the use of antiseptics, was nothing new. Tubes made of metal, and tents of various kinds, were used centuries ago; but, as with the antiseptics, their use was not founded upon scientific principles, and in the anxiety to avoid the introduction of foreign bodies they were completely abandoned, so that twenty years ago such a thing as a drainage-tube in a fresh wound was hardly thought of. Empirical surgery had tried both antiseptics and drainage, and had abandoned them as useless. Scientific surgery showed their real value; and although the present

methods will undoubtedly undergo modification, these two great principles must remain as essential features of every mode of treating wounds. It is to the scientific mode of treating wounds that we owe all the marvellous progress of Surgery during the last sixteen years. This progress is not to be judged of by the number of new operations that have been introduced into practical surgery, nor by the heroic nature of some of those recently performed, but rather by the improved results of the common operations, and the greater success that attends the treatment of common injuries.

Thus, while the practical surgeon boasts of the marvellous results of modern operative surgery, he should not forget that it is in reality to the discoveries of modern science that he is indebted for the safety with which his operations are performed. The study of the unhealthy processes in wounds is still advancing, in the hands of Koch and others, but there still remains much to be done. Unfortunately, in this country the means of carrying on such investigations are surrounded by so many legal difficulties that we are obliged to trust chiefly to foreigners for new matter, but we can take our share in applying the discoveries of foreign pathologists to the practical treatment of diseases; and to prepare us for this a proper scientific training is a necessity.

That a scientific education tends to make the student unpractical, is another argument sometimes used. It is but a poor compliment to our profession to assert that those practise it best who know least about the nature of the diseases they undertake to cure. The complaint as to the want of practical knowledge in the students educated on the modern system comes chiefly from the general practitioner, who asserts that the present student, fresh from his college and hospital, is of but little use to him as an assistant. If called upon to dispense, he is ignorant of how to make his mixtures pleasing to the eye and palate, his pills are too big, his plasters too thick, and the parcels he makes up are badly folded and inelegant; and his knowledge of bookkeeping is even more limited than his acquaintance with pharmacy. When a patient has nothing the matter with him, he tells him so in so blunt a manner that he immediately seeks out another medical man who will be a little more sympathetic with regard to his supposed sufferings. He looks upon every patient too much as a case, and fails in all those legitimate arts which are necessary to win the confidence of that most selfish and unreasoning of beings. A still more serious failing often shown by the modern student is, an ignorance of the various infectious diseases which are not admitted into general hospitals. There is no doubt, therefore, that the general practitioner has just cause to complain when asked to give a hundred a year to a man who, however well trained in medical and scientific knowledge, is totally ignorant of the business element which necessarily forms a part of our profession. He finds that he has to pay a man for learning from him that which, in the days of apprenticeship, he was handsomely paid for teaching. The only remedy for this seems to me to be in the hands of the general practitioner himself. He should refuse to give more than board and lodging to any man who has not had six months' experience of actual practice. Six months of such experience would be quite sufficient, and at the end of that time, I have little doubt, he would find the modern student would practise his profession none the worse for possessing a better knowledge of the principles which guide his treatment.

One advantage of a proper scientific training to which I have not yet alluded is, that it tends to fit every medical man to take his part in advancing medical knowledge, should he feel the inspiration so to do. The general practitioner is placed in circumstances which enable him to observe certain points in clinical medicine and surgery, much better than the physician or surgeon. He sees most of his cases from beginning to end; he can observe those preliminary symptoms which indicate the approach of grave disease; and he has the opportunity of verifying his own conclusions and those of such consulting physicians or surgeons as the patient may have seen. He has unusual opportunities of studying the influence of heredity, of occupation, and of locality on disease, so that, should he feel inclined, he has no lack of opportunity of prosecuting original investigations. A proper scientific training will teach him the method of conducting such investigations, the precautions necessary to avoid error, and the utter worthlessness of opinions formed merely as the result of experience, and unsupported by accurately recorded observations. Such original research would be of all the more value, as it would in most cases be spontaneous, and undertaken purely from the love of the work, and not, as is so much that is done in the present day, merely with the view to say or do something new, in order to obtain promotion either in a hospital or medical school. This forced original work, undertaken merely from interested motives by persons with no natural originality, is a cause of endless confusion in medical science, and retards rather than advances the progress of knowledge.

Supposing it, then, to be granted that the best training for every student should include a preliminary education in Science, how could such a scheme be carried out?

In the first place, it is absolutely necessary that the examinations should correspond to the course of study. Taking sixteen as the age at which a boy could pass his preliminary examination in general education, he could then immediately turn his attention to Science. There is no reason why this should not be done before leaving school. At Epsom Royal Medical College students are now prepared for the preliminary scientific examination of the University of London; and there ought to be no difficulty in preparing for a similar examination of a lower standard at any good school. If there were a demand for such education, the supply would soon be abundant; and after passing the entrance examination the boy could, if necessary, be moved to some school where the required instruction was given; or, if his parents preferred it, he might at once enter at a college, and enjoy the advantages such institutions naturally possess. The examination in Science might take place at seventeen. The subjects of the examination would be Chemistry and Natural Philosophy, and either Botany or Zoology, or both. After passing this, the student could commence regular medical study, with a much better chance of making good progress from the very beginning. At present the complete change in the subjects of study, together with the sudden transition from the bondage of school to the absolute liberty of the medical student's life is somewhat bewildering, and certainly interferes with proper study for some time. The latter condition it is difficult to remedy, but there is no reason why the student should suffer from the former. With regard to the later course of study, at the end of the second year, and at the age of nineteen, would follow the examination in Anatomy, Physiology, and Materia Medica; and the remaining subjects at the end of the fourth year of study, when the student had reached the age of twenty-one. Part of his last year of study might doubtless with advantage be spent in receiving instruction from a general practitioner.

There seems nothing impracticable in such a scheme as this, but in order to carry it out it is absolutely necessary that the present disjointed system of examination so often followed, in which some subjects are passed before one examining board, and others before another, should be in some way made impossible. The conjoint scheme does not seem, however, to be as yet within the range of practical politics. The report of the Royal Commission which has just been sitting seems to leave us much where we were before. In fact, the idea of a harmonious conjunction between bodies so different in tradition and in character as the University of Oxford and the Society of Apothecaries is, perhaps, somewhat Utopian. It is not, however, necessary for the whole seven licensing bodies of England to conjoin to produce the desired result, so far as the student is concerned. The Universities have already expressed a willingness, and are, in fact, empowered to cease giving their graduates a legal right to practise. That they should thus be ready to give up one of their most ancient privileges makes it more to be regretted that they were not equally willing to renounce any direct part in the appointment of examiners and in the management of the proposed conjoint examination. Their influence on medical education by example has been productive of the greatest good, and this influence will doubtless continue to increase, whether they take any part in conducting a minimum examination or not. If the universities retired we should have left, as far as England is concerned, only the three Corporations; and it at first seems rather surprising that these three bodies find it so difficult to sink their differences, and unite for the purposes of examination. This surprise will, however, be somewhat lessened if we look back at their history; and it may not be uninteresting to you if, in conclusion, I try as shortly as possible to trace how these three bodies have

arisen, where we only want one, as I think a review of their history may tend to suggest a remedy for the evil.

In the early part of the reign of Henry VIII., the medical profession consisted of physicians who had received licences to practise both medicine and surgery, either from the bishop of the diocese or from the Universities of Oxford and Cambridge, but who were not united into any corporate body, and of "two several and distinct companies of surgeons, one called the Barbers of London, and the other the Surgeons of London," the former having been incorporated as far back as the year 1461. Outside the profession were the apothecaries who kept drug-shops. These were under the control of the Grocers' Company and had no legal right to practise medicine. In 1518, Henry VIII. granted letters patent, constituting the College of Physicians. From its very foundation it was a body of great dignity and power. The physicians held a social position much higher than the surgeons. Most of them had received an academic education, and were possessed of some degree of culture. The surgeons were, as often as not, rude uncultured men, their professional education consisting entirely of an apprenticeship to some freeman of the Company of Barbers or Surgeons. About twelve years after the foundation of the College of Physicians, the two Companies of the Barbers and Surgeons were joined into one; yet, curiously enough, any single member of the Company was forbidden to practise both the mysteries of barbery and surgery at the same time, unless he was the domestic servant of some great man. This was to prevent their spreading disease by opening foul abscesses and shaving with the same instruments. The surgeons were kept closely confined to the mechanical part of their art, and if they ventured to order a dose of medicine they were fined and imprisoned without mercy by the President of the College of Physicians.

For a short time they had, however, the satisfaction of tormenting the apothecaries in their turn, if they ventured to undertake the care of surgical cases. But this happy time for the surgeons was of short duration, for three years after the two companies were joined, an Act was passed, in the preamble of which they were accused of "vexing divers honest persons, as well men as women, whom God had endued with the knowledge of the nature of herbs, roots, and waters"; of "extorting money from the diseased," and of "having so small cunning, that, by reason thereof, they did sometimes impair and hurt their patients rather than do them good." Wherefore it was enacted that, practically, anyone might practise surgery who thought he had a gift in that direction.

For a long time after this the physicians had the pleasure of tyrannising over both the surgeons and the apothecaries. The apothecaries had the advantage of the assistance of the powerful Company of Grocers, of which they formed a part until the reign of James I. Then for the first time they were incorporated; but it was not till a few years later, in 1616, that they were definitely separated from the grocers and established as an independent company, under the name of the Society of Apothecaries of London. They were not, however, free from the College of Physicians. Either the President, or some physician delegated by him, took part in the examination which had to be passed before an apprentice could be made free of the Company; and the duty of inspecting or destroying adulterated drugs, which was transferred to them from the grocers, was carried out in conjunction with and at the command of the physicians. The apothecaries were the pharmaceutical chemists of that time, and, like the chemists of the present day, seem to have taken every opportunity of prescribing as well as of dispensing medicines. At first the College of Physicians resented this, and summoned many apothecaries before them, and fined some, and "excommuned," or, as we should say in the present day, "boycotted" others. Still the practice grew, and at last the apothecaries claimed the right of prescribing as well as dispensing. The struggle between them and the physicians was long and bitter, and it was not finally settled till a judgment was given in their favour in the House of Lords in 1708. During this time the surgeons and barbers remained united, and it was not till 1745 that they finally parted company; the surgeons establishing themselves independently in Surgeons' Hall as the Corporation of Surgeons of London.

In 1748 the apothecaries obtained an Act of Parliament which confirmed their power of prescribing medicines, gave them additional powers of examining, and made it illegal for any man to dispense medicines within seven miles of London without their licence. It now became common for medical men to hold both the licences of the apothecaries and surgeons, and thus arose the so-called surgeon-apothecary, and in his hands was the greater part of the practice of the country. After they were beaten by the apothecaries, the power of the physicians rapidly declined, and they seem to have retired into a state of sulky and offended dignity, and not to have taken the part they might have done in controlling the education of the lower grades of the profession. At the end of the last century the Surgeons' Corporation seems to have died a natural death; and now was lost the great opportunity of uniting the physicians and surgeons, which will probably never return. The College of Physicians has always maintained that Surgery is only a branch of Medicine, and that their licence entitles its holder to practise both; and it is much to be regretted that they did not act upon this assumption. At the time when Surgery was practised chiefly by illiterate men, who also undertook the trade of "barbery," any union between the ignorant barber-surgeon and the cultivated physician was out of the question. But in 1800 things had changed, and the physicians need not have felt it beneath their dignity to welcome within their body a class of men amongst whom had but recently been Percival Pott, Cheselden, Sharp, and John Hunter. Yet, although many surgeons also recognised the inseparability of Medicine and Surgery, the idea of uniting the physicians and surgeons seems never to have been entertained, and the College of Surgeons in its present form was founded. Possibly, if this desirable union had taken place, the encroachments of the Society of Apothecaries might have been withstood. As it was, the surgeons became rather the allies of the apothecaries, and upon the surgeon-apothecaries fell the task of raising the lower grades of the profession to a higher and more dignified position. Under their influence was passed the Act of 1815, which gave the apothecaries further powers of examining, and extended their jurisdiction to the whole of England and Wales. This Act evidently intended to perpetuate a lower grade of the profession, who should combine the trade of the druggist with the practice of medicine. That this was so is shown by the fact that the apothecary was bound under heavy penalties to prepare prescriptions ordered by a physician. It was also intended that the chemist and druggist, who was now arising as an independent tradesman, should not be allowed to prescribe. The apothecaries were not, however, content with this inferior position, their ambition being to grant a licence on equal terms with the College of Physicians. They consequently limited their apprenticeship to five years, and made attendance at a medical school compulsory; and it cannot be denied that at this time they did more to raise the general standard of knowledge in the medical profession than any other body. While doing this, however, they neglected their proper business, and allowed their influence in the drug trade to slip from their hands, till, in 1841, a separate society—the Pharmaceutical Society of Great Britain—was established, which relieved them from their last duties in connexion with that trade. Finally, the Act of 1858 practically made the licences of the two Colleges and the Apothecaries' Society equal. At the same time some of the evils that it was intended in 1815 to correct, have reappeared in an aggravated form.

By the destruction of the old apothecaries, who sold their drugs and gave their advice for nothing, the field has been left open to the chemists and druggists, who now probably do about as much practice as the legitimately qualified medical men. The apothecaries are thus as it were "hoist with their own petard." They have raised the general practitioner till the College of Physicians has at last condescended to take notice of him, and arrange a suitable examination for his benefit. They have lost every trace of influence in the drug trade, and their licence confers no special privilege on its holder; and it need not be said that few would not prefer the letters "L.R.C.P." after their names to "L.S.A." Consequently all reason for their continued existence has disappeared. It is useless to plead as an extenuating circumstance that they did good work in raising the general practitioner sixty years ago. They have forgotten that it is said, "Be not weary in well-doing," for they seem soon to have wearied, and practically for

the last quarter of a century they have done less to improve medical education than any other body in this division of the kingdom, the University of Oxford perhaps excepted. But it is not likely that they will retire from the false position into which they have thrust themselves; it could hardly be expected from human nature. To call in the aid of the State would be a great calamity for the medical profession, which has, so far, managed its own affairs. There is, however, another alternative, and that is the union of the two Colleges for the purpose of examination. The College of Surgeons now holds a position of nearly equal, if not equal, dignity with the College of Physicians. To this it has arrived by the improvement of the science and art of Surgery, which it represents. It has, perhaps, done its duty better than either of the other corporations. It has never allowed the control over surgical education, from the highest to the lowest grade, to slip from its grasp, nor has it until quite recently undertaken any duties properly belonging to another body. The union, for the purpose of examination, of such a body with the Physicians ought to present no difficulties, and if it were effected the Apothecaries' Society would probably before long die a natural death. No further conjoint scheme would be wanted for England. At present something is urgently required: not so much to protect the public from ignorant practitioners—for that, I believe, is sufficiently done by all the examining boards,—but for the protection of the student from the present irregular, unscientific course of education which he is so often allowed to follow.

EXTIRPATION OF THE KIDNEY.—Dr. Harris, of Philadelphia, furnishes, in the July number of the *American Journal of Medical Sciences*, an analytical examination of the 100 cases of extirpation of the kidney which have now been performed. Of these 100 cases, 45 have terminated fatally, 45 with recovery, and 6 were still under treatment when last heard of. Nephrectomy may be safely claimed to save at least one-half the cases operated upon. Statistics show a yet higher rate of cure, but we must make allowance for unreported cases. It has been satisfactorily demonstrated that a person may spare one kidney without impairment of health, provided the one left be perfectly sound. It has also been shown that life may be materially prolonged after the extirpation of a malignant kidney, if that is alone affected; and it has also been proved that tuberculosis of one kidney is apt to be followed, sooner or later, by the same disease in the other. The true value of the operation, however, can only be estimated when we have a record of the subsequent health of the patients, and the time, cause, and manner of their deaths. In England and Scotland there have been 25 nephrectomies, with 10 recoveries and 13 deaths, and 2 recent cases.

NOTES ON PSORIASIS.—At the sixth meeting of the American Dermatological Association (*Phil. Med. News*, September 9), Dr. Robert Taylor, of New York, after calling attention to a view of the pathology of psoriasis expressed by Sir E. Wilson, that it was a remote outbreak of syphilis after transmission through several generations, observed that he had been interested in investigating this possible relationship, and had made a practice for several years of interrogating patients closely as to the existence of syphilis in the family. Further observations had impressed upon him that in fully 25 per cent. of his cases he could obtain a history of syphilis in one or both parents. In none of these was the specific disease in an active stage. In one the syphilis had occurred fifteen years before, and in another the last outbreak had appeared fully three years before the birth of the child affected with psoriasis. In all the cases the psoriatic children had been the later ones. Usually, psoriasis shows itself before puberty; he had seen it as early as the second year, and in most cases the first manifestation occurs in the early years. Certain cases of papular syphilis show some resemblance to psoriasis that is perplexing; it is also like it in its inveteracy. As Hebra has taught, the prognosis of psoriasis is usually bad; still it may be cured, if treated early, in a great many cases. In young subjects the combination of arsenic and mercury known as Donovan's solution had proved very efficient in his hands. After the disease has existed for a long time, and impressed the pathological tendency upon the skin, it becomes much more difficult to overcome.

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE

LONDON HOSPITAL MEDICAL COLLEGE.

By JONATHAN HUTCHINSON, F.R.S.,

Senior Surgeon to the Hospital.

I HAVE been asked to say a few words this evening, and the choice of topic has been left to me. In some respects I should have much preferred that it had been given me, and that Mr. Buxton, Dr. Clark, or some one of the many friends whom I see around me, had chosen my subject, and thus diminished a somewhat oppressive sense of responsibility.

There is one topic which comes into the mind almost naturally when teachers and students meet again after a holiday, and that is, to ask how the vacation has been spent. I do not, however, propose, gentlemen, in any inquisitorial manner to ask what holiday tasks have been performed, or how far the good intentions of July find themselves fulfilled in October—whether or not you have really read the books which you had determined to read. If for no other reason, I am conclusively deterred from venturing in this direction by the character of my audience, for we have the pleasure of the company of many who are not students of medicine. I propose, therefore, on this account, to discard professional topics, and making my own guesses as to the literary pursuits of the past two months, shall try if I can find in connexion with them the material for half an hour's comments.

I will guess, then, that we have most of us recently been brought into more or less sympathy with Mr. Paul Bultitude under the painful circumstances of his transformation as told us in "Vice Versâ," and that we have almost all of us read with a kind of pleasure, of which I hope we felt a little ashamed, the clever but exaggerated caricature which has appeared under the title of "Democracy." Concerning neither of these books shall I have another word to say; my real topic will be one of no such ephemeral interest, but which will hold its place amongst our literary treasures for many a year to come. We are, I doubt not, most of us fresh from the perusal of the "Life of Thomas Carlyle." About a year ago there appeared, immediately after the death of one who was, perhaps, take him for all in all, the greatest man of the present generation, two volumes of Reminiscences. In these we found amongst much that we valued much also that needed excuse, and some things that it was hard to forgive. Those, however, who were most pained by certain passages in that work will, I cannot but think, have been greatly relieved by the reading of the two volumes of biography which Mr. Froude has just given us. In these latter we have, full and complete, the story of Carlyle's life, his struggle and his victory, and the hero now again claims, if I mistake not, that lofty position in our estimation from which he had been almost threatened with dethronement. Here we are permitted to see, in full disclosure, the sources alike of his weakness and his strength, and our marvel at the work which he did, and at the uses to which he put his troubled life, rises higher than ever. The unconquerable independence, the industry, the faith in the future, unclouded in the main by the deep-rooted melancholy of his nature, the sense of duty in his work, are features in which the character of Carlyle attains sublimity. His letters to his wife and to his mother, and, perhaps above all, those to his brother John, claim our admiration in the very highest degree. Especially to all young men, and to all young medical men—for they were addressed to a struggling young physician.—I would commend his letters to his brother. His letters to his mother make constant appeal to the difficulty under which he feels himself in using expressions which she will understand, and which will not give her pain. She had remained a Scotch Puritan of the most austere creed, and to her no expressions on religious subjects were acceptable, scarcely, indeed, intelligible, which did not clothe themselves in the phraseology of the Hebrew Scriptures. To her son many of those expressions had seemed to have lost their fulness of meaning and to need new translation in accordance with the wider scope of modern thought. Over and over again he has to assure his poor mother that she and he, although they phrase it differently, really mean the same thing, and have their hearts set on the same objects,—an

explanation and assurance which in the present day many thousand sons find themselves, I fear, constantly compelled to make.

In truth, it was not an inconsiderable demand upon a middle-aged matron of strict opinions to expect that she should believe that "Sartor Resartus" really meant nothing more than what she had been taught in her early life. The book is itself a protest against the enslaving nature of dogma, and an enforcement of the duty of thinking, and above all of feeling, for oneself. It abounds in strange and out-of-the-way expressions, and that not because its writer loved singularity, but because his main mission was to try to break the bonds of formula, and make the reader see that there was a substance behind, which current and well-worn phrases often tended rather to conceal than to show. As its name imports, it was an attempt to re-clothe human opinions in fresh and more vivid modes of expression. As the man is more than the garments which he wears, so, it asserted, is the very thought itself more than the phrase in which it is customary to array it. Let us put the thought into a new dress, let us, if need be, strip it naked, and see then how it looks. But this process, however useful, however necessary, to a large majority is not only a difficult one, but is also attended with pain. An old and well-known friend seems changed, and changed too often for the worse, by being made to wear a new-fashioned dress. For Carlyle's purpose the method he adopted was absolutely necessary, and what is more, it attained its end. Many before him had recognised the exceeding importance of precision in language, and had seen clearly enough the truth which Hooker so well expressed when he said that "the mixture of those things by speech which by nature are divided is the mother of all error." It was something more than this which Carlyle saw; it was that in all forms of language, and especially in all phrases, there is danger—a risk that the thought which should be living and free may become, as it were, imprisoned, and no longer capable of expansive growth. Is it too much to say that with the publication of "Sartor Resartus" there came in a new order of literature, and one vastly superior to that which it superseded? Critics, essayists, biographers, and historians, one and all began from that time to see things in a new light, to try to discriminate better between the husk and the kernel, to place a far higher value upon fact, and to spare no pains to make their words convey with vividness their meaning. In this way the book itself has been half superseded, for all the leading writers of the day have caught some share of its lessons. I am old enough myself to remember the day when this book was at the height of its popularity, and when village ladies and young gentlemen formed themselves into classes for its study, with the design of reading a few pages every day, and the not unnecessary pledge that there should be no going forward until what had been read was well understood.

I have wandered, I fear, rather far from my special topic, which was, I believe, to explain to you how it came to pass that Carlyle's mother, herself the wife of an Annandale mason, found some difficulty in understanding the writings of her eldest son, and was anxious and suspicious as to their strict orthodoxy. Perhaps, after all, it was hardly necessary to explain it.

Over and over again, in his letters to his brother and in his entries in his own diary, Carlyle enforces the paramount duty of keeping clear of the "gig-man" spirit. In one of his most pathetic letters to his wife, when their prospects were at the lowest, and he is endeavouring to incite her fortitude to further effort, he reminds her with pride that her soul was never that of a "gig-maness." To many present it is, I know, not necessary that these terms should be explained, but it may be that there are some to whom elucidation is desirable. Especially perhaps is it possible that some of the young ladies before me may not feel quite sure as to in what consists the sin and shame of being a gig-maness. Since it would be a great pity that anyone should run the risk of becoming a gig-maness unwittingly, or should be incapable of understanding the compliment if told that she is not one, I shall venture to offer a few words of explanation. The words in question are designed to denote merit and respectability as indicated by externals alone and without regard to the inner character of the man. It is said that at a celebrated criminal trial a witness deposed that he had always considered Mr. Thurtell a very respectable man, and when asked why he had thought so, replied, "Well, he kept a gig." I have heard other forms of the same anecdote, all turning upon the point that the keeping of a gig, in the times when gigs were more in use than now, was an accepted sign of a certain social position. Hence, to be a gig-man, in Carlyle's meaning of the word, is to trust to externals as our credentials to the respect whether of ourselves or of others. To be above the gig-man spirit is to be capable of maintaining our proper position in the forum of our own feelings irrespective of success in life, and to be in the habit of according such position to others quite irrespective of theirs. It is to take measure of the soul rather than of the body's trappings. In proportion as I permit to myself no sentiment of inward satisfaction, excepting in regard to things pertaining to the soul's growth, do I keep clear of the gig-man standard. If I find my happiness, on the contrary, in increase of wealth, or the acquisition of titles, then I am a gig-man. The social laws, which draw abrupt lines of distinction between first-class and second-class passengers, between members of professions and those who follow trades, are laws of the gig-man order. If a young lady, in her preference of one admirer to another, allows herself to be influenced by the consideration that one is a doctor and the other only a draper, knowing all the time that the draper has the warmer feelings and the sounder taste, then I much fear that she is a gig-maness.

There is yet another word frequently occurring in these letters which it may be necessary to explain. It is the German word *entsagen*. Carlyle repeatedly congratulates his brother on having learnt the meaning of this word, and in one place he writes, "My main comfort about you is to see the grand practical lesson of *Entsagen* impressing itself in ineffaceable devoutness on your heart." He regards *entsagen*, he says, as the first lesson in all true life. With Mr. Froude's help we may interpret his meaning to be that we should in the first place learn the doctrine of renunciation of worldly gains, and become able to say firmly that we can do without any and all of the various pleasant things with which the world usually rewards those who render services to it. It is, in fact, to learn, as we find it expressed in "Sartor Resartus," "to do without happiness and to find in its stead blessedness." Without doubt a most important attainment. Respecting, however, both this doctrine of *entsagen* and that of gigmanism, I feel inclined, on behalf of the weakness of human nature, to protest against their being pushed too far. They are, if so pushed, the virtues of the stoic, and fit only for the few. The world would lose much useful work if ready-money wages in current coin should cease to be paid or should lose their present value. We are all of us gig-men more or less, and there are times when we all find it helpful to look forward to early and common-place forms of reward. The donkey that was enticed onwards by a bunch of carrots fixed on the end of the cart-shaft at any rate accomplished his journey and probably got the carrots at last, and, however humiliating it may be to say so, he is in truth but an illustration of the mode in which much of the labour of the world is exacted from those of us who have to toil long after the zest for work is exhausted. *Entsagen* for the most part is, let me further say, a doctrine for the grown-up man, and should not be enforced either on the young or on those who have the care of them. Many, too, beyond the age of childhood find it needful to cultivate the amenities and delights of life lest too great austerity should land them in insanity.

Were we to attempt to sum up in brief the secret of Carlyle's strength, I think we should have to say that it consisted in his perception of the reality of things. This was a feeling which was ever present with him. Men were real to him, spirit-possessing beings, never wholly without the capability of affection, never even in the degraded condition of partridge-shooters or gig-men losing all share in the divine element of life. Their differences, too, were real, and must be taken carefully into account. The world was real, the universe real; the past had really been, and the future would most certainly come. In truth, this sort of perception is the secret of strength in us all, and its absence is the cause of all weakness. It is the very basis of all motive and of all effort. It measures our devotion to truth and our belief in its value; upon it is rooted the distrust of all shams, the hatred of all forms of lying.

The gospel of duty, self-restraint, and devotion to work, was one which Carlyle had well learned, perhaps no man ever better. But there was a great failing in his attain-

ments, one which marred the happiness of his life, and which not only robbed him of the reward which was his due, but considerably diminished the usefulness of his teaching. He had not learned what we may, I think, without irreverence style the Religion of Patience. By patience I mean not the mere passive virtue of endurance, which indeed is not unfrequently no virtue,—I mean rather the ability, when we have done our best, under all possible circumstances, to rest undespairingly and trustfully for the result. Dare I venture for one moment to assume the prophet's mantle myself, I would foretell that the worship of patience in this exalted sense is one upon which the present age is about to enter. If we glance back over the great mythologies of the past and note their hidden meanings, we shall observe the worship, under various types, of various forms of power, of beauty, and of virtue. In the earliest ages the gods were symbols of force; they did, and not always beneficently, the great deeds which controlled the destinies of men. Next, as in such types as that of Hercules, we see force combined with human-heartedness, but still force, gross and almost purely physical in its efforts. Side by side with this sprang up the worship of beauty, especially in human and female forms, and the shrines of Juno, Minerva, and Venus, under various names in different climes, claimed their countless votaries. As the moral sense grew and human sympathy expanded, the unsatisfying nature of these Religions of the External became felt, and the world witnessed events such as the self-renunciation of Buddha and the advent of what has been well termed the Worship of Sorrow. In these sublimely loving creeds there were, however, elements of weakness and of unfitness for the every-day work of the world, and the pendulum of human sentiment, as it was sure to do, swung back again towards an exaggerated estimate of physical force and natural beauty. In truth, the worship of these was far too deeply rooted in our very being for it to have ever been put aside. The other had been added, but these had not been dethroned. Nor will the introduction of a new goddess effect the displacement of any one of her predecessors. We may pay vows at the altar of patience without ceasing also to render due homage to courage, energy, and physical vigour, and without bating one jot of our admiration for the charms of external beauty or of our reverence for that glory of soul which can place the happiness of life in pouring blessings on others. I am aware that in offering these suggestions I am giving but the barest outline of a subject full of detail and complexity. But we may probably still find that it is not very far from the truth, and that in all ages men have given their reverence, if we put aside their fears, first to manifestations of power, next to those of beauty, and lastly to self-abnegation. In the temple which encloses these three shrines we must all still worship. If we cease to revere strength we shall reap as our reward weakness; if we shut our eyes to beauty we shall lose the joyousness and brightness of life; if we fail to feel the divine attractiveness of self-abnegation we shall soon find that the priceless capability of sympathy and love has faded from out our hearts. We may thankfully recognise that there is at present no sign that the world is likely to fail in its allegiance to any one of these three, and the sooner that the shrine of Patience is admitted as a fourth the better will it be for us all. I have let slip an expression in suggesting that Patience should be typified as a goddess, which I ought perhaps to recall or qualify; for it may be doubted whether the symbol of a female god would be quite appropriate. What is meant by the patience which the world is now in need of learning, and respecting which Carlyle so definitely failed, is the power on all subjects to receive all facts without prejudice, to accept the work, imperfect though it may appear, which is done by others, to be hopeful and trustful under all circumstances, to bear our lot in life, when unalterable, without resistance and without complaint. Other things being equal, patience gives to the character which possesses it an enormous advantage, for it shields the mind from a thousand sources of turmoil and discouragement. Here let me say that if Carlyle failed in the exercise of this virtue he did not do so in his appreciation of it. The German motto, "Ohne Hast ohne Rast," without hurry and without sloth, was constantly on his tongue; and many and forcible were his exhortations to his brother to take courage, and vigorous were his expressions of faith in the future of the world. But in spite of this his patience often broke down and he formed harsh judgments of others, both of their actions and opinions, simply because he could not compel his mind to examine them with candour.

Part of his impatience was creditable, being due to the greatness of his nature in other directions, his keen appreciation of the true making him correspondingly intolerant of what seemed to him false.

This topic of Life-patience is one which concerns us as medical men, perhaps, more directly than some of the others which I have mentioned. To a large extent, impatience of life in its various forms—acute, chronic, and paroxysmal—is undoubtedly a result of inherited organisation or of derangement of health. Its cure, if cure there can be, must be sought from physical means, and not from any new development of opinion or fresh insight into the order of the universe. That, however, the influence of opinion and of creed upon the mental health is often very great, no one knows better than the medical observer. This evening I purpose to eschew all purely medical matters, and I shall therefore now confine myself to a few remarks upon the bearing of different modes of belief upon cheerfulness in life. It is needless to remark upon the absurdity of exhorting a man to be cheerful or to be patient. You might just as reasonably exhort him to be six feet when he is really only five feet ten. The problem is to make him cheerful, and it cannot be done by preaching to him concerning the duty. Now, in studying the genesis of patience, I think it may, in the first place, be admitted that patience is in the main based upon hope: "We live by hope, we breathe the glad air of a bright futurity, and so we live or else we have no life."

Next let me assert that it is not so much the greatness of the things we hope for as the certainty that they will come which makes us feel able to wait. We are not by nature gamblers, loving to stake our all upon a throw, and the prospect of small but certain profits has a far more attractive power over most minds. I have said that Carlyle was impatient, and that he formed, under the influence of prejudice, very unjust opinions on some topics. Amongst others, he spoke of the doctrines of Darwin as too contemptible to be worth a moment's consideration. In putting them thus scornfully aside, I think he missed a main source of comfort in life. The truth is, that what Carlyle himself was proclaiming in the language of the mystic, Charles Darwin was explaining in the language of science. Carlyle was asserting that there is a spiritual power in nature, was bidding us reverence that power as supernatural, and as working through rough and mysterious ways towards certain and definite good. Darwin, looking at the same facts from a biologist's standpoint, explained how this result did indeed come about, and that, too, through the simplest and most unmysterious ways. It has been thought by many, by believers as well as sceptics, that Darwin's explanations are melancholy ones, and that they would in short land us again in regions of mere brute force. I cannot think that this view is correct. Darwin did not impose any new "law," he simply interpreted the facts of nature; and nature, whether his explanations be true or false, will go on in the future as it has done in the past. We may then expect confidently in the future the same kind, perhaps the same rate, of progress which there has been in the past. This consideration should certainly forestall despair; and there remains another which may, I think, reasonably give us a lively hope. When we use such phrases as "Survival of the fittest," "The battle of life," "The struggle for existence," and the like, we by no means have regard to brute force only; friendship is also a force, affection and love are forces of incalculable power, and it is with these which we have to reckon in estimating the prospects of the battle. That victory will in the long run be found on the side on which they are ranged is certain, if we reflect for a moment on their nature. Love and friendship, as well as hatred and selfishness, will make use of material means and brute force in order to success. These means will be common to both, and since love leads to union, and hatred to isolation, love must of necessity in the end prove the stronger. Surely a mind familiar with such thoughts gains much in the solid foundation of its hopes.

There is nothing here erratic or uncertain. Under the laws which the Creator has given to life, simple as possible in themselves, there must be progress in earthly happiness. Nor do the facts of history belie this speculative conclusion. Did time permit, it would be easy from various other departments of natural science to produce arguments of a similar

nature, and show how much knowledge in these directions tends to produce patient hopefulness as to the destinies of mankind.

I hope that I shall not hurt the feelings of any by using the term prophet as applicable to Carlyle. In truth there is none other suitable. Not one of the great Hebrew seers was more impressed with the importance of his message, or more resolute to deliver it faithfully than he. None ever more profoundly reverenced the Unseen Power, or sought more earnestly to live always as under his Master's eye. We must make allowance for changes in the age of the world, and for differences thus brought about in modes of expression; and these being made, we shall find in Carlyle by far the closest resemblance to such men as Jeremiah, Isaiah, and Ezekiel that the present age has produced. He foretold, not the fall of this or that city or kingdom, but the general prospects of his race; and he denounced, with a fervency at least equal to that of those whom I have named, the penalties which must come from want of truthfulness, want of honesty, or, in a word, from ceasing to fear God. Nor were his modes of expression and of publication so very different from those of old, and what differences there were he could not well have avoided. At one place we find him declaring, "Had I but two bread-loaves in the world, and one true idea, I should hold it my duty to part with one loaf to buy pen and paper and live upon the other till I got it written." At another he expressly states that the great Hebrew writers were those with whom he most closely sympathised, finding in them an earnestness akin to his own. Like them, he had to bewail that his message found no hearing. "One's heart," he wrote, "is for hours and days overcast with the sad feeling—'There is none, then, not one, that will believe in me!' Great in this life is the communion of man with man. Meanwhile, continue then to believe in *thyself*. Let the chattering of innumerable gigmen pass by thee as what it is. Wait, then, on the bounties of thy unseen Taskmaster, on the hests of thy inward *Dæmon*. Sow the seed-field of time. What if thou seest no fruit of it, another will. Be not weak. One way or other, thy message will and shall be uttered. Write it down on paper, anyway; speak it from thee—so shall thy painful, destitute existence not have been in vain. Oh, in vain! Hadst thou, even thou, a message from the Eternal, and thou grudgest the travail of thy embassy! O thou of little faith!" With many such expressions do we find him in his private diary striving to sustain and strengthen his sense of responsibility in his work. The message which he believed that he had chiefly to deliver was that the Natural is also the Supernatural. He sought not to degrade the supernatural by bringing it down to the natural, but rather to elevate the natural. In this there is doubtless a great meaning, but at the same time somewhat of the jargon of words. To say that the natural and the supernatural are really all one, and both the work of one and the same Maker, is probably to most of us the simplest and clearest mode of expression.

Many ages have had their prophets and their seers—those who in the uttermost earnest have set themselves to deliver the messages with which they had been entrusted. If I am not mistaken, however, no age and no country has been more favoured in this respect than our own. I will name to you four, not that they are the only ones, but rather that they stand foremost, and because, also, I think they may be fitly held to represent the four divisions of social religion to which I have referred. To Carlyle, of course, we give the chief place, and to him we assign the priesthood of the worship of Strength. To him it was permitted to see that all power—physical, intellectual, and moral—is alike God-given, and must be used for the Maker's ends. This was his message: "Be strong, and to that end be truthful; be honest, for in falsehood and dishonesty there cannot possibly be other than weakness. Reverence your strength." Of him I have already said all that time will allow.

There can be not the slightest doubt as to whom I ought to name as our Seer of the Beautiful. Note first how the domain of the Beautiful has of recent years been enlarged. No longer are our conceptions of it almost solely associated with human, or at any rate animal forms; we now find delight in a thousand aspects of inanimate nature to which our forefathers were well-nigh blind. Let us note, also, that only within the present century have we shaken ourselves clear of the trammels of an outworn Puritanism, which forbade us to seek pleasure from beauty of any kind. We do not owe our emancipation in this respect wholly to one man. There is, however, one author who, by his own intense purity of taste and almost unexampled power in the use of language, has done more to develope the perception of beauty in the minds of Englishmen than the rest of his generation taken together. Not only has he proclaimed "the duty of delight," but he has taught us how to practise it. What Carlyle has done for the worship of Strength, his pupil, John Ruskin, has done for that of Beauty.

To Wordsworth must, I think, be assigned the office of latter-day priest at the shrine of self-renunciation and human sympathy. This early-orphaned son of a country attorney devoted himself almost from boyhood to the task of reproving the pride of wealth and power, and of showing us the loveable side of lowly life. Having first, as all prophets must, trained his own heart by observation, and cultivated his own feelings until he could trust them, he then, with a calm carelessness of criticism, and without hoping for applause, set himself to his task. He had known from his youth the details of the lives of the peasants of the dales; next in Cambridge, then in London, and lastly in Paris and France, he brought himself into close contact with other phases of human life. His was not thoughtless feeling; he desired to know how best his sympathies should be directed. In his "Prelude" he has told us, in simple and pathetic language, what his feelings were whilst mixing with the poor of London and of France. Making allowance for difference in time and country, I do not think that even Buddha himself, when he left his father's palace for the desert, manifested a more calmly self-renouncing spirit than did Wordsworth at this epoch of his life. He would live on the smallest pittance, in the least possible cottage, and there he would do his share in the world's regeneration. The age of hermits and devotees was happily passed away; had it not been so he would have become one. As it was he married a wife, brought up a family, did his best to provide things honest in the sight of all men, and through a long life worked on with a most noble singleness of aim. Wealth and honours never tempted him, and probably not in any subject that he selected, not in a single line that he ever wrote, was he influenced in the least by the desire of praise. He did not preach, he was not didactic, his power was far higher. Instead of telling us what we ought to be, he finds us the means of becoming; he does not instruct us, he cultivates our hearts. The "Prelude" and the "Excursion," although studiously calm and self-repressed, are full of narratives which it is impossible to read without emotion or to dwell on without profit to the soul. His "Happy Warrior" and "Ode to Duty" ought to be fresh in the memory of every young man.

His nature was, however, not strong on all sides. He was ignorant in science, especially in biology and political economy, and very distrustful of them. His sympathy with the exercise of natural strength was but limited, and I do not think I should be wrong in even saying the same of his perception of external beauty, unless it could be linked with some human lesson. He was spiritual, not sensuous. Like Carlyle he was subject to periods of depression, but in the main he was full of hope and of faith in an invisible Power under which all things worked together for good, a sentiment which he has well expressed in the lines which have been called Wordsworth's Creed:

> "For me, consulting what I feel within,
> At times when most existence with itself
> Is satisfied, I cannot but believe
> That, far as kindly nature hath free course,
> And reason's sway predominates, country,
> Society, and time itself that saps the individual's
> Bodily frame and lays the generations low in dust,
> Do by the Almighty Ruler's grace partake
> Of one maternal spirit, bringing forth
> And cherishing with an unending love
> That tires not nor betrays."

If we go to Wordsworth to learn sympathy, we must, I think, turn to another poet for initiation into the cultus of Life-patience. In this noble worship, if I mistake not, Robert Browning stands as chief priest. The "Ring and the Book" is an eloquent apology for human motives, a vehement and very successful attempt to make us feel how easy it is for men, under various phases of impulse, to entertain most different opinions as to the right or wrong of the same sentiments and actions. Intellectual perception of the possible good in all men, almost in all actions, is a lesson to

be found more or less distinctly in all his writings. When once we perceive this the spirit of anger and denunciation dies in us, and we become able to see things calmly, to reason and be patient. Of the fallibility of all human judgments Browning never ceases to remind us. He is for ever pronouncing blessings on the eyes that can see, and has suggested, somewhat rudely, that it is possible that our ears may be "stopped and stuffed despite their length." He has however, far nobler lessons than these. He teaches the continuity of time and absolute permanence of all moral force. He insists that evil is merely a negation, and foretells the triumph of the good. In his hands death loses its terrors, for we are made to see that it can but change the body, and cannot possibly conquer life. The gain of earth, we are told, must of necessity be heaven's gain too; in other words, the gain of time must be also the gain of eternity. In speaking of Carlyle's contempt for Darwinism, I tried to show you that really these two were saying the same thing; and I am now desirous to extend that assertion both to Wordsworth and to Browning. They both, looking at the subjects from the spiritual side, and using poetical language, assert precisely the same conclusions as those of Darwin. What is the following but the doctrine of "survival of the fittest" applied to morals?—

> "To trace love's faint beginnings in mankin',
> To know even hate is but a mask of love's,
> To see a good in evil, and a hope
> In all success; to sympathise, be proud
> Of their half reasons, faint aspirings dim
> Struggles for truth, their poorest fallacies,
> Their prejudice and fears and cares and doubts,
> Which all touch upon nobleness, despite
> Their error, all tend upwardly though weak."

Or again,

> "The evil is null, is nought, is silence implying sound;
> What is good shall be good, with, for evil, so much good more."

I could easily produce hundreds of other quotations to prove that Browning is in a most emphatic manner an apostle of hope and teacher of patience in its highest sense. I should do myself an injustice if I were to allow you to believe that this is the only lesson which I have got from his noble poetry, but it is the chief one, and for it I owe him a lifelong obligation. The same kinds of consolation and sources of hope are also often alluded to with most delicate force by Mrs. Browning. It is, I think, in "Aurora Leigh" that she expresses her longing wish

> "That no truth henceforth seem indifferent,
> No way to truth laborious, and no life,
> Not even this life I live, intolerable."

At another place in the same poem she says, beautifully:

> "There are nettles everywhere,
> But smooth green grasses are more common still.
> The blue of heaven is larger than the cloud.
> I would be bold, and dare to look into the swarthiest face of things,
> For God's sake, who has made them"

I have named the four authors to whom, chiefly, I have been myself indebted. It may easily be the case that others have found the same lessons as clearly brought home to them by other writers. To those who wish to find the teaching of them all combined in one man, I would commend the writings of Emerson; but they must be prepared for a considerable reduction in vigour. With still further dilution, but with much sweetness and grace, the same may be found in the prose and poetry of Longfellow.

Whilst of the four whom I have named it is true that each one has his own particular message, so that I have been able to assign to each his special vocation, it is also true that they have much in common. One and all are eager to face the facts of man's existence, and the conditions which surround it—to see and to feel the reality of all that concerns alike his physical and spiritual life.

> "Let good men feel the force of Nature,
> And see things as they are,"

is the prayer of them all. Each one in turn has for himself faced these facts, and arrived at a sure basis of hope. All of them are zealous for man's effort and confident of man's reward.

One general remark as to these our prophet-poets, and I have done. They are of no use to those who will not believe them; it is only upon those who have ears to hear that their blessings rest.

Now, gentlemen, students of our College, in conclusion I can but hope that none of you will consider that I have unduly neglected an opportunity of speaking to you on subjects directly pertaining to your education. I hope to have other opportunities for doing that. It has seemed best this evening to address you on topics which concern us all as men. I might have devoted the hour to eulogy of the profession which you have chosen, but surely it needs no praise. So, also, I might have praised the school which you have selected, and paid compliments which would have been very sincere, however blunt, to those at present concerned in its management. But here, again, facts speak for themselves, and you are familiar with them. I have preferred to try to find you motives for work and to give you strength and confidence in study. If now I were to sum up in one sentence what I have been enforcing, it would be this: The secret of all noble life lies in belief, and the characteristic of all noble minds is the vigour with which they believe that which is true. Try to attain belief in the reality of all things; so shall you never want for motives, so shall you be able to live and work without hurry and without sloth. Finally, permit me to commend to you this formula:—Prize strength, love beauty, practise self-denial, and be patient.

Ipecacuanha in Dysentery.—An increasing professional experience in the use of ipecacuanha in dysentery amply confirms the original statements as to its very special value. There is, however, a singular lack of appreciation of its curative effects, and an unwillingness on the part of many physicians to give the remedy in sufficient quantity. To cure dysentery with ipecacuanha, its purgative effects must be induced, and for this it must be taken in quantity. It has been found that from a scruple to a drachm every four hours, until the characteristic stools are produced, is the amount necessary. How to secure the retention of such a quantity by the stomach is a vexatious problem. Combination with aromatic powder sometimes suffices, and this should not be neglected in any case. The conjoint administration of carbolic acid and bismuth will diminish the irritability of the stomach. The powder is best swallowed mixed in milk. A mustard-plaster should be previously applied to the epigastrium, and some bits of ice allowed to melt on the tongue until nausea ceases. If rejected several times, tolerance is established, when the maximum doses will be retained. When the "ipecacuanha stools," as their peculiarity entitles them to be called, are passed, astringents complete the cure.—*Philadelphia Med. News*, September 9.

Climatic Relations of Pneumonia.—Dr. Sanders (*American Journal of Med. Sciences*, July) terminates a statistical paper upon "The Geographical and Climatic Relations of Pneumonia" with the following conclusions:—1. The relations of altitude are definite and marked; with increase in elevation above the level of the sea, there is a steady diminution in its death-rate. Some exceptions to this rule exist, but in the large majority of instances it holds good. 2. The mean annual rainfall in a place bears no positive relation to pneumonia. In some instances a very large mortality from the disease coincides with a large precipitation of rain, in others with a small one, while in as many others the contrary conditions are found to prevail. 3. The higher the death-rate from all causes, the greater the mortality from pneumonia. This rule is almost, if not actually, absolute. 4. The larger the actual population of a locality, the greater its relative death-rate from pneumonia. 5. There is a direct, positive, and unequivocal relation between the mean annual temperature of a place and its death-rate from pneumonia, the rule being that a high mortality from the disease coincides with a high mean annual temperature. Exceptions exist, but, being unusual and rather rare, their existence can hardly be said to invalidate this rule. 6. Proximity to large bodies of water—such as lakes, inland seas, or the ocean—exerts no appreciable influence on the pneumonia rate. 7. In North America, pneumonia increases in frequency as we pass from east to west; in Europe, as we advance from west to east—the rate of increase being very nearly twice as great in the case of the latter as in that of the former. 8. Pneumonia, all other things being equal, increases in frequency the further we advance from the polar regions towards the tropics—this, however, only up to a certain parallel, beyond which it seems to become less and less commonly met with, until at or near the equator, where it apparently disappears. Very few facts, however, are available for determining the latter part of this statement.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(*Continued from page* 513 *of vol.* i. *for* 1880.)

YELLOW FEVER.

In the chapter on Indian Relapsing Fever I mentioned that, during the Burmese War in 1852, cases of fever occurred among H.M.'s troops, especially in the 80th Regiment, which, in the opinion of the medical officers who were acquainted with Yellow Fever in its natural habitat, "exhibited apparently a perfect identity with the Yellow Fever of the West Indies and the Bilious Remittent Fever of Sierra Leone."(a) This may have been either Indian Relapsing Fever or a grave form of Paludal Remittent attended with blood distintegration. In protracted campaigns in India, and especially in Burmah, the presence of a scorbutic taint has generally been recognised, and is always to be apprehended.

Some months ago a retired medical officer of great Indian experience stated that, early in his career, he had seen Yellow Fever in India. But I think it evident that he spoke of that disease which is now generally recognised as Indian Relapsing Fever, which stands widely apart from true Yellow Fever, especially in the particular that it is epidemic and without any marked gastric complication; whereas Yellow Fever is, under ordinary circumstances, endemic and characterised by black vomit. No one expects to meet with true Yellow Fever in India, and its occurrence in that country has not been demonstrated by any medical authority.

PESTILENTIA—PALI PLAGUE—MAHAMURREE.

Dr. Morehead, the greatest living authority upon Indian diseases, strongly objects to these indefinite and separate designations of what appears to be one and the same disease —*i.e.*, INDIAN PLAGUE.

Seeing that the existence of this dire malady, either in Western India or on the spurs of the Himalayas, can be traced, with occasional apparent breaks of ten or fifteen years, from 1815 to 1876, and that a full and continuous history of its progress during these fifty-one years appears to be wanting, I shall deal with this subject rather fully. I need hardly say that we can only follow the progress of Indian Plague with a good map of India before us. The earliest accounts of this disease are given by Mr. McAdam.(b) Its first appearance of which we have any full record was in the Provinces of Kutch and Kattywar in the Bombay Presidency in May, 1815.

It appears to have been preceded by three years of severe famine.

It spread extensively and committed great ravages. Many thought that it had been imported from Egypt, but facts are wanting in support of this opinion, and it has been justly remarked that, had it been so introduced, it is probable that its first appearance would have been at Bombay, in the direct line of the greatest traffic.(c) It prevailed chiefly among the dealers in raw cotton (which probably acted as a focus of contagion) and the manufacturers of cotton cloths. Mr. Whyte describes(d) the habits of these people as being mainly instrumental in the existence of this plague. They were the only people he had seen in India who might properly be termed filthy. Ablution, so general in India, was almost wholly neglected in Kattywar. The people were loaded with clothes, which were seldom changed, and which almost rotted upon the persons of the poor. Their immense herds of cattle were invariably driven within the town walls at sunset, and penned at night in the house which contained the rest of the family. Mr. Whyte made a remark which, in our present knowledge of these epidemics, is full of important significance—"Many of these cattle are labouring under diseases regarding the nature of which we are ignorant. An epidemic or contagious disease has *since the famine*(e) run through the whole of them." We considered that marsh poison was not operative here, the towns being situated either on the rocky bank of a running stream or on dry sandy soil. He apprehended that it would be difficult to find a situation more likely to give rise to malignant typhus, as represented by "gaol," "hospital," or "ship" fever, than many of these walled and crowded towns furnished. The habit of this disease appears to have been to begin in the cold and to last through the hot months, without undergoing any change from the change of weather. It was undoubtedly contagious, and, making full allowance for exaggeration in popular reports, it was very prevalent and exceedingly deadly. The symptoms were those of a low typhus fever with buboes, little inclined to suppurate, in the groin or armpit, less frequently in the parotid and submaxillary glands on one side. In all there was the greatest debility; coma generally set in on the second day. The tongue was covered with a white fur in the centre, through which and at the edges were seen papillæ of a shining, fiery red appearance. Petechiæ were not observed, and I do not find mention of hæmoptysis or any other hæmorrhage.

It is shown, in the article which I am quoting, that the Indian plague prevailed in Kutch, Kattywar, and Ahmedabad from 1815 to 1819 elsewhere its historian says that it was last known to exist in the Bombay Presidency in 1821, after which we hear no more of it in that part of India until it broke out in the town of Pali in Marwar in 1836; but, as we shall presently have to show, its first known outbreak, as Mahamurree, in the district of Gurhwal, in the Province of Kumaon, has been traced to the year 1823, from which date we are able to follow its appearances at intervals in those Hill Districts at least up to 1876.

The Pali Plague of 1836.—It was stated that, although this was popularly considered as a new disease, it had formerly committed great ravages in Marwar. For the history of the Pali outbreak of Indian Plague we are chiefly indebted to the published report of Dr. Ranken, then Officiating Secretary to the Medical Board of Bengal.

This malignant fever made its appearance in the town of Pali in July, 1836. At a meeting of the Epidemiological Society, in June, 1880, Dr. Don gave a vivid description of the insanitary condition in which Pali was when he was stationed in that neighbourhood twenty years previously. He spoke of it as the filthiest native town that he had ever seen, densely crowded within the circuit of a ditch of black and filthy water. Even the natives looked upon it as a peculiarly unhealthy spot, in which pestilential disease might be expected to arise at any time. He thought that, being in a Native State, its condition is doubtless still as bad as ever.

After spreading to twenty-four places within a circuit of thirty miles around Pali, the disease reached the city of Joudpore in October. We are told that, having thus begun in Marwar, the disease, affecting only the village of Dewair in the intervening hilly territory of Mhairwarah, passed over it in March, 1837, to Deoghur in Meywar. Thence it skirted the Mhairwarah Hills for fifty miles to Jalia and Ramghur in the district of Ajmere; and during April extended in another direction to Bilwarah and Humeerghur on the road between Neemuch and Nusseerabad. Thirty-two villages of Meywar were finally attacked by the epidemic. It did not advance beyond the boundaries of Marwar and Meywar, except at Jalia and Ramghur. It began to decline with the commencement of 1837, and almost disappeared towards the end of that year, without progressing beyond the districts originally assailed. In November of that year, however, according to Assistant-Surgeon Forbes,(f) it again became severe at Pali, and continued up to February, 1838.

Medical officers ascertained that it was infectious, and considered that it was the Plague.

It is stated that, of the fifteen or twenty thousand inhabitants of Pali, four thousand perished at the rate of fifty or sixty daily. The deaths in Marwar were reckoned at twenty thousand, including six thousand in the city of Joudpore. In Meywar the number of victims was computed

(a) "Annual Report of H.M.'s 80th Regiment for the Year ending March, 1853," by J. R. Taylor, Esq. (*Ind. Annals Med. Sc.*, No. 2, page 1).
(b) *Transactions of the Bombay Medical and Physical Society*, vol. i.; and an admirable review of the history of Mahamurree up to the year 1852, in the *Indian Annals of Medical Science*, No. 2, page 609, and No. 3, page 189.
(c) Reviewer, *Indian Annals*.
(d) *Transactions of the Bombay Medical and Physical Society*, vol. i.

(e) The italics are mine.—N. C.
(f) *Transactions of the Medical and Physical Society of Bombay*, vol. ii., page 1.

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at seven thousand and twenty-two. The medical officers concurred in stating that not more than one-third of the sufferers survived.

Mr. Maclean and Dr. Irvine gave the following symptoms as characteristic of the Pali disease. No sense of indisposition gave warning of its approach. It came on with slight rigor, headache, nausea, and pain in the loins. The skin soon became hot and dry, the pulse from 130 to 150, soft and easily compressible. Tongue variously covered with white, light brown, or darkish fur, these colours being sometimes intermixed; no red points appeared. Vomiting and irritability of stomach occurred but rarely. Bowels bound; abdomen tumid and full, but seldom painful on pressure. Eyes heavy, hazy, and bloodshot, sometimes appearing as if injected with lake. The countenance expressive of anxiety and inward pain. Glandular swellings in the groins, armpits, and neck, most frequently on the left side, as also under the jaws and ears and in the upper part of the thigh. These were generally perceptible on the first or second day, and rarely became larger than a walnut; but, in some instances, they became much larger, burst, and discharged pus. The symptoms were sometimes all so mild that the sick kept walking about until they gradually recovered. In most cases there was a visible abatement of the disease every twenty-four hours towards morning. But in the worst forms intense fever continued night and day without any remission, the patients could not rise from their cots on account of extreme debility, and an attempt to raise them to the erect posture produced fainting. Although apparently unaffected by the fever, respiration was often impeded by concomitant inflammation of the lungs. Hæmorrhage from the lungs took place in a few cases, and was much dreaded. Upon the presence of lung complication with hæmoptysis in Pali Plague and Mahamurree (conditions which seldom occurred in true bubo plague), Hirsch and Liebermeister appear mainly to ground their opinion that Indian Plague is identical with the Black Death of the fourteenth century. Mr. Maclean wrote, "In a small proportion of cases, inflammation of the lungs comes on, on the first or second day of the disease. The patient complains of acute disease on one or other side, or behind the sternum, great difficulty of breathing, short dry cough; usually on the second or third day a small quantity (rarely more than half an ounce) of florid blood in small coagula is expectorated. In such cases buboes are not commonly observed; though they do occasionally coexist with the inflammation of the lungs. The mortality has been so great among those in whom the lungs were affected, that a person now, on seeing blood in his sputum, gives himself up for lost. There was most excruciating headache. Delirium rarely occurred in the beginning, but coma generally supervened shortly before death. When violent the malady had its fatal course in three days. When mild, with or without the affection of the glands, it was protracted to fifteen or twenty days.

Some attributed this outbreak to imported contagion; but this opinion seems to have been unsupported by any conclusive evidence. Mr. Maclean, the first medical man who saw the disease, appears to have considered that the pestilence originated in the filth and bad ventilation of Pali itself.

Mahamurree, 1823-1870.[g]—Dr. Francis shows that Mahamurree was first brought to the notice of Government in 1836, the very year in which Pali Plague first attracted public attention. Its first recorded outbreak, however, was in the district of Gurhwal, in the Province of Kumaon, in the year 1823. It subsequently prevailed endemically in some part or other of Gurhwal, occasionally with great violence. Dr. Renny found that it began near Kedarnath in the snowy range. The highest point at which it raged appears to have been the village of Sarkote, situated at an altitude of more than 7000 feet above the sea-level. Dr. Francis shows that, in 1834, an outbreak of this pest caused 633 deaths in Gurhwal—a large mortality in so thinly populated a district. In 1849-50, 111 deaths took place in nine villages. The maximum death-rate was estimated at 88, and the minimum at 25, per cent. In 1852 the worst outbreak occurred. The disease then burst forth in twenty villages, which were almost simultaneously attacked. Drs. Francis and Pearson were appointed to investigate the malady in 1852. The chief symptoms, as given by Dr. Francis, were as follow. The attack usually commenced with shivering. There was rapid and extreme prostration. Præcordial oppression, glandular swellings, either inguinal, femoral, axillary, or cervical, or immediately below the ear, the suppuration of which was regarded as critical. A white chalky, laterally fissured, but unswollen tongue, occasionally resembling the strawberry tongue of scarlatina. Headache, not infrequently accompanied by passive delirium and imaginary noises within the brain; a peculiar mixture of muddiness and lustre in the eyes. There was generally constipation; now and then diarrhœa. The supervention of profuse perspiration was considered highly favourable. Vomiting was not frequent, but the natives thought well of it when it occurred. It was not at all uncommon for an individual to be suffering in the morning from nothing apparently but malaise; yet in twenty-four hours the sufferer would be a corpse. In the greater number of fatal cases death occurred on the third day. Petechiæ were rarely observed. Dr. Francis's allusion to the important question of *hæmorrhages*, which we have spoken of above as occurring in Pali Plague, is not very full. He considers that they were not very common. "These," he writes, "are met with, if at all, in the quickly fatal cases; but hæmorrhage is not an ordinary accompaniment. When seen, it is in the form of hæmoptysis." In noting the fact that the rats of the village almost invariably die on the eve of an outbreak of Mahamurree—a circumstance which also occurs in Yunnan, in Western China, where plague has been endemic for some years past,—Dr. Francis says that the animal "would emerge from its hole on to the floor, stagger, perform an involuntary gyration or two, bring up blood, and die." In the lungs of a rat which the reporters examined "there were on the surface what looked like carbonaceous patches—islands of hæmorrhagic effusion."

(To be continued.)

[g] The principal authorities on the subject of Mahamurree are, "Medical Report on the Mahamurree in Gurhwal, in 1849-50, by Dr C. Renny." The article on Mahamurree in No. 2 of the *Indian Annals of Medical Science* (Calcutta, 1854). This gives the very able report on this disease by Drs. Francis and Pearson, and the former officer's recent memoir on "Endemic Plague in India." *Transactions of the Epidemiological Society of London*, vol. iii., part 3, page 391.

TREATMENT OF EPILEPTICS AT THE SALPÊTRIÈRE.—

In a recent thesis, Dr. Ferrand gives an account of 80 insane or idiotic epileptics, who were treated under Dr. Legrand du Saulle by the bromide of potassium. Of these 12 were decidedly benefited, 51 were improved, 16 were slightly benefited, and only 10 received no benefit whatever. The figures are encouraging when we remember the character of these subjects. The methodical mode of administration is of importance. At first from 30 to 45 grains are given daily, the quantity being increased by 8 grains every fortnight or month, until the daily dose reaches 75 to 90 grains for women, and 90 to 120 grains for men. After the attacks have been suspended for twelve months the bromide is given 6 days in the week, after fifteen months 5 days, after eighteen months 4 days, and after two years 3 days. Dr. Ferrand is of opinion that after the bromide has been administered thus systematically and perseveringly, all epileptic phenomena may be suspended, but he cannot go so far as to agree with A. Voisin that the cure of some cases may be absolutely assured. In such cases of apparent cure, he believes that the epileptiform seizures were really due to alcoholism, plumbism, syphilis, etc. He finds, however, that many of the accompanying troubles are much modified—such as the nervous state, maniacal delirium, and the insane impulse. A happy influence is also exerted over the intellectual troubles, and epileptic mania is extremely improved. Nocturnal enuresis is arrested, as also the aura; but the vertigo resists longer than any other symptom. Bromide is eliminated by the sweat-glands, and the free bromide disengaged excites acne, erythema, etc., and sometimes gives rise to unhealthy ulcers, urticaria, and eczema. Acne may be prevented by the simultaneous administration of arsenic, but ulcerations require suspension of the remedy. The most frequent ill-results of improper methods of employment are headache, somnolence, impaired locomotion, gastric irritability, constipation, anæmia, feebleness, etc.; but Dr. Ferrand makes no mention of the mental disorders which have been observed in this country from the use of too large doses.—*Phil. Med. News*, August 9.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

EXTENSIVE FRACTURE OF THE BASE OF THE SKULL IN AN INFANT—ESCAPE OF CEREBRO-SPINAL FLUID FROM THE EAR—DEATH.

(Under the care of Mr. GODLEE.)

H. G. E., aged one year and seven months, was admitted under Mr. Godlee's care at the North-Eastern Hospital for Children, on July 1, 1882. The mother said that two hours previously the child had fallen (a distance of two feet only) from its bed on to the floor, striking the side of its face. The mother was out of the room at the time, but heard it fall. She found that it was stunned, but it soon came round on being shaken, and then cried for about five minutes, after which it became drowsy; it retched several times, but was not actually sick. Some blood was flowing from the left ear, but the bleeding lasted only for a few minutes, and then gave place to the escape of a watery fluid.

When admitted it was very pale and drowsy; it resisted slightly any examination of the eyes, and lay, as a rule, without taking notice of anything, but could be aroused by a sharp sound such as a whistle. It vomited some mucus stained with blood, and sometimes retched without vomiting. There was some tenderness behind the left ear, and some blood-stained watery fluid was escaping from the meatus. There was no bleeding from the nose or mouth. The pupils were equal and reacted well to light. No irregularity could be detected on the skull, and there was no hæmatoma. There were no nervous symptoms of any kind.

On the following day (July 2) the condition remained much the same, the watery fluid still escaping in considerable quantity from the ear. The temperature, which was normal in the early morning, rose to 101° at 9 a.m., but fell again to normal in the evening. The pulse ranged from 120 to 144, and the respirations from 32 to 36. The child was not sick until the evening. It cried for its mother; took its food, and had no nervous symptoms.

It slept well that night, and on July 3 the condition had scarcely changed, except that the discharge from the ear had ceased, and the pupils were becoming rather sluggish in their reaction to light. The temperature rose to 102° in the early morning, but fell below normal in the afternoon. Some castor oil was administered.

On July 4 some twitching of the left arm occurred. The patient remained apparently much in the same condition; but the temperature rose much higher, reaching 105° at 9 a.m., and falling to 100° at 9 p.m. The pupils were more sluggish. The discs were examined, and found to be normal. The child continued to take its milk pretty well.

On July 5 the discharge reappeared from the left ear, and was perfectly clear and of a watery character. The meatus was now plugged with iodoform wool, which was changed from time to time as it became soaked. The child lay on its back with the head turned to the right side. It screamed quietly from time to time. The pupils were still more sluggish than before. The temperature did not rise above 102°.

On the 6th, general convulsive movements of the muscles of the limbs and face set in at 2 a.m., and continued at intervals throughout the day, coming on always when the child was disturbed. There was some dulness on the right back. The left optic disc was engorged; the right could not be clearly seen. The discharge from the ear continued to be copious. In the afternoon the temperature ran up to 105°; the convulsions became more continuous, and were most marked on the left side. At 6 p.m. the child died.

At the *autopsy* an extensive fracture of the skull was found, beginning about the middle of the left parietal bone in a bifid extremity, and extending downwards to the back of the meatus externus; after passing a little forwards so as to reach the root of the meatus, and separating the tip of the auditory process, it passed along the meatus, rupturing the upper and back part of the membrana; it then again bifurcated, the posterior part passing through the internal auditory meatus to the jugular foramen, the anterior extremity towards, but not quite reaching, the foramen ovale. There was a considerable amount of pus in the cavity of the arachnoid, principally on the left side and at the base of the brain, but not extending to the upper parts of the hemispheres. Beneath the arachnoid, however, there was a copious effusion of puriform lymph, most abundant about the base of the brain, but extending in less amount to the sides and front of the hemispheres, and reaching to a smaller extent as far as the vertex. It extended along the medulla, and for two inches along the spinal cord; it also followed the velum interpositum into the third ventricle; but the lateral ventricles did not contain an excess of fluid, and their contents were not abnormal. The vessels of the base were searched, both with the naked eye and the microscope, for tubercle, but no sign of it was found. The other organs, with the exception of the lungs, which were congested, showed no signs of deviation from health.

Remarks.—It is to be noted, in the first place, that severe fractures of the skull in children of this age are by no means common, their soft, elastic bones being indisposed to fissure in the same way as those of an adult. In the second place, it is remarkable that such an extensive fracture should result from so trivial an injury. The question of the possibility of a fall of two feet producing such a result as was found, suggested itself as one that might under certain circumstances have had a very interesting medico-legal bearing. But the most important lesson to be learnt from this and similar cases is, that if a fracture of the skull ruptures the membrana tympani, and also passes across the internal auditory meatus, it constitutes not only a compound fracture of the skull, but a compound fracture of the skull communicating directly with the cavity of the arachnoid. No condition can be possibly conceived more favourable for originating a septic meningitis. It is surely wise to treat such a fracture on antiseptic principles, namely, to clear away all wax and discharge from the ear, and then to inject the meatus constantly with some one-to-twenty carbolic acid lotion, and to apply either a gauze or iodoform dressing, changing it when it becomes soaked. I can testify to the safety with which this may be done, and to the efficiency of the proceeding if it be done early, and not, as in this case, when the mischief has already occurred. It may be objected that even if the meatus externus be purified, the fracture still communicates with the external air through the Eustachian tube. This must be granted, but there is no more reason to suppose that organisms exist in the tympanum, than that they are to be found in the bladder, which we know is, under ordinary circumstances, not the case; the healthy mucous surface of the Eustachian tube, like that of the bladder, no doubt preventing the spread of these low forms of life along their surfaces. The blood which flows from the nose and mouth in many of these cases no doubt passes along the Eustachian tube, and if this takes place to any great extent it is perhaps likely that the fracture would be contaminated through this source; but, seeing how seldom prolonged bleeding takes place from these cavities, I would strongly urge that the line of treatment mentioned should always be adopted.

CRIMINAL ABORTION IN CONSTANTINOPLE.—At the recent Medical Congress held at Athens (*Gazette Méd. d'Orient*, July), Dr. Ziffo read a paper, in which he observed, in explanation of the fact of the less proportion of illegitimate births observed at Constantinople compared with some other places, that this arose from the great prevalence of criminal abortions in that capital. These were produced in great numbers by all classes of the inhabitants except the Jews, among whom the practice is rare. Most of the numerous cases of disease of the uterus observed there were originally due to this cause. The practice is greatly on the increase.

ACCORDING to Consul-General Archibald's annual report, the death-rate last year in the city of New York rose from less than 26½ per thousand in 1880, to over 30 per thousand. The year 1880, however, was exceptionally healthy. The total number of deaths from zymotic diseases in 1881 was 13,495, more than half the number resulting from diphtheria, scarlatina, and diarrhœa. The deaths from small-pox were 151.

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Medical Times and Gazette.

SATURDAY, OCTOBER 7, 1882.

THE OPENING OF THE MEDICAL SESSION.

The work of the Winter Session at the English Medical Schools commenced on Monday last; and the old custom of opening the session by only an introductory address to the students, delivered at each school by a member of the staff, was observed at St. George's, St. Mary's, St. Thomas's, and the Westminster Hospitals, and at University College. At King's College, Mr. W. H. Smith, M.P., distributed the prizes gained by students of the medical department at the end of the winter session, 1881-82, and last summer session; and gave an address to the students. At Middlesex Hospital the whole of the opening ceremony was saddened by the death on the Monday morning, after only a few days' illness, of Dr. R. W. Lyell, one of the Assistant-Surgeons to the Hospital, who was to have delivered an address to the students; as it was, Dr. Cayley made an excellent but short inaugural speech, and a distribution of prizes took place. At Charing Cross Hospital, in recognition of the recent death of a senior member of the staff, the session commenced without any opening ceremony. As has been the case for several years, no address was given at either St. Bartholomew's or Guy's; but at the London Hospital this year Mr. Jonathan Hutchinson delighted a mixed audience at the evening *conversazione* that replaced the opening ceremony of bygone years by an address on the "Life of Thomas Carlyle." This variety of mode of marking the beginning of a new medical year almost compels attention once more to the question of the value and usefulness of the introductory lectures of the days that were. We must confess to believing that they have been, and still ought to be made to be, of real and considerable use to the students; and we are therefore glad that at so many of the schools the old custom is still observed. The students come up to the medical schools with but little, if any, real knowledge of the career upon which they are entering; and surely it should be very possible for their teachers to give them some useful advice as to methods of work, and some warnings against the various and manifold temptations and pitfalls that beset their path; some guidance as to what to do and what to avoid; and some encouragement in facing and overcoming the difficulties they must meet with. And we are not of those who think that the introductory address, if one be given, ought to be made use of to instruct the public at large in the aims and progress of the science and art of medicine. At the most, this should be only a very secondary object with the speaker; and we are inclined to hold that ambitious attempts to make it the first object have been among the causes why introductory addresses have to some extent been given up. It is not given to every medical teacher to be able to explain happily and well to the public what Medicine is; but every man who has passed through a medical school should be capable of giving young students some help at the beginning of their medical school life; and must be glad, one would think, to have an opportunity of so doing, though to some it may be not easy to do it well and pleasantly without "lecturing" them overmuch.

An address of this type was, however, hardly to be looked for from Dr. King Chambers, who opened the session at St. Mary's Hospital. His position with respect to the occasion was a somewhat peculiar and special one. As he observed, "introductories" are usually delivered by one of the working staff, "preferably a junior member, who has at his fingers' ends all the details of the progressive art of teaching"; but Dr. Chambers had many years ago been obliged by illness to give up his position on the teaching staff of St. Mary's. He therefore passed by all the subjects of discourse usual to the occasion, and, taking up a theme entirely new to freshmen at any rate, spoke of the relation of the medical student to the General Medical Council. He assured his hearers that the members of the Council think a great deal about students, and spend the major part of their time in learning about them and in making arrangements for their happiness and welfare. The Council is solicitous, above all things, that no injustice shall be done to the medical student, and that he shall obtain the fair reward of labour and intelligence. It is to the action of the Council that is owing the fact that medical students obtain now the inestimable boon of the sound preliminary education of English gentlemen; and that they differ so widely from the medical students whom Dickens drew from the life. The education they now must receive before they can be admitted as hospital students, not only fits them to associate with gentlemen, but enables them to acquire more readily the technical knowledge and professional habits of thought for which they come to our medical schools; and the moral of all is, that when the students enjoy the satisfaction that springs from ease in acquiring knowledge, and the fitness for being of the cultured classes that a good preliminary education bestows, they should not forget their indebtedness to the Medical Council. Further, the Council have earnestly recommended the substitution of several examinations instead of the single, final one that "used to hang over the student like a sword of Damocles through all his career"; and their recommendations are being carried out by the licensing bodies, to the great comfort and advantage of the student. We more than suspect that some people will say that all these things are due to the general progress in instruction, much more than to the action and influence of the Medical Council; but, at any rate, it was the Council who *enforced* upon the parents and guardians of would-be medical students the duty of giving them a sound and fairly broad

preliminary education, and all the improvement referred to by Dr. Chambers would in all probability, to say the least, have been brought about much more slowly without the action of the Council. Dr. Chambers does not hesitate to urge the student to make success in examinations the goal of his ambition. "The examinations are framed," he says, "to encourage and, as far as they can, to enforce such a course of education as fits a man for after life, and the utmost care and watchfulness are expended in providing for the fulfilment of that object. When you are preparing for examinations you are preparing in the most certain and rapid manner for success in your profession." If this is to be read as a description of what is, we much fear that very few persons outside of the General Medical Council will easily recognise it; but it must be taken, we imagine, as an illustration of Dr. Chambers' enthusiasm in the cause of medical education and examination: that which experience and study have led him to think ought to be, he believes already is. His "few parting words" to his colleagues show that Dr. Chambers recognises that neither education nor examination are yet nearly perfect. As to the latter, it has been repeatedly pointed out by ourselves, and no doubt by others, that it is by no means an easy thing to be a good and fair examiner, and that a man would be much more likely to examine well if he would but remember that his duty is to find out what a candidate knows, not to discover what he does not know; but this truth appears to be so little recognised generally that Dr. Chambers felt it necessary, or at the least desirable, to state, as a revelation and a warning to others, we suppose: "It never struck me till I myself became an examiner—and the truth of the remark has during more than twenty years of that work been strongly impressed upon me—that his business is to discover knowledge, not to expose ignorance."

Dr. Chambers very earnestly warned students not, on any consideration, to make the mistake of accepting places as assistants before they have passed the qualifying examination. By doing so they run the greatest risk of degenerating into mere drudges, and of, at the least, delaying their fitness for going up to the final examination. He said—"They are selfish and cruel persons who try and tempt you to become unqualified assistants; they do it for their own dirty profit, and it is a very bad bargain for you. I have had a good deal of correspondence lately with those who have been unqualified assistants, and they invariably speak of it as their 'misfortune.'" The advice is very good, and not a whit too strongly expressed.

Mr. Marcus Beck, in his able and thoughtful address, delivered at University College, dealt with "some of the theoretical principles upon which modern medical education is supposed to be conducted, and the reasons why the practice does not as yet, for all students, quite correspond with the theory." He first traced the development of the modern general practitioner from the apothecary, and the changes in medical education in England that have resulted from the progress of science. The apothecary of former days was well suited, he said, for his work in the times when he lived and practised; but in the present day medical students can only be properly taught by a course of training conducted according to the laws of the science of education. Science has so far advanced as to become an actual guide to practice; and, consequently, medicine and surgery can no longer be properly taught on the old empirical principles, but must be studied as sciences. Knowledge has increased enormously, and the student has now to learn very much more than was expected from his predecessors of twenty years ago; while there is no reason to believe that the human intellect is increasing in capacity. How, then, is the student to be enabled to gain the required knowledge? The proportion of students rejected at their examinations has increased correspondingly as the required standard of knowledge has been raised, though it has only been raised in proportion to the increase of knowledge; and not only hopelessly idle or not sufficiently intelligent men are rejected, but also, not seldom, the industrious student of fair abilities. Where is the fault? It lies in the want of proper and efficient training: the want of such training as will enable the student to think well and correctly, and so more easily to acquire the necessary amount of knowledge. The mind can be improved by a proper course of training, and in such a course the subjects must be taken in due order, proceeding from the simple to the more complex, from the exact to the inexact sciences; and in estimating the value of any given subject its influence in mental training must be considered as well as its practical utility. Now, in no branch of knowledge is efficient mental training more needed than in medicine: for "in no science are the facts to be observed more numerous or more difficult of observation; in none is the plurality of causes and the intermixture of effects more marked; and upon the correctness of the conclusions we draw from our observation depends frequently the health or even the life of a fellow-creature." So far as it can be done, therefore, we must train the medical student to be an accurate observer, a clear and orderly thinker; to be an open-minded disbeliever as to things not proven, and to classify and arrange his knowledge so that it shall be ready when wanted. It need hardly be said that Mr. Beck does not think that the education and training provided for our students at present are the best possible. He looks at the whole matter from the standpoints of a highly distinguished student of University College and graduate of the University of London, and of a practical man, instead of from the standing of a member of the General Medical Council, and he is greatly dissatisfied. Preliminary education and examination must be improved and enlarged so as to include, of obligation, natural science. Or there may be a separate science examination, which must be passed after the Preliminary, but before the real medical work begins. Thus, a lad may pass in general education at sixteen; then, at school still or at college, he takes up science, and at seventeen passes in science—*i.e.*, in chemistry, natural philosophy, and botany or zoology, or both: thence follow four years of medical education, with an examination in physiology, anatomy, and materia medica at the end of two years: and at the end of the fourth year, *i.e.*, at, as now, the age of twenty-one, the final examination. The course of education must be orderly; and the examinations must be orderly—corresponding to the order of study.

Mr. Beck recognises and meets the objections that may, easily enough, be taken to this scheme; and he sees that it cannot be worked out unless some uniform system of examination, as regards qualification to practise, be adopted. He is not a believer in a near advent of the "conjoint scheme," and does not see any reason why it should be waited for. He is satisfied that, could the union of the Royal College of Physicians and the Royal College of Surgeons for the purpose of examination be effected, no further conjoint scheme would be needed for England. We need not say that in this we heartily agree with Mr. Beck, for we have more than once urged this course upon the Colleges; and we think with Mr. Beck that such a union ought to present no insuperable difficulties. Some form of union for examination purposes is urgently wanted; but not so much, Mr. Beck holds, to protect the public from ignorant practitioners—which, he believes, is sufficiently done by all the examining boards—as for the protection of the student "from the present irregular, unscientific course of education which he is often allowed to follow."

WEIGERT ON THE GENERALISATION OF MILIARY TUBERCULOSIS.

The elaborate memoir by Professor Weigert of Leipzig, in *Virchow's Archiv*, May, 1882, deals with one of those collateral questions of tubercular pathology which are for the present apt to be eclipsed by the more sporting exploits of the school of germ-finders. In a note appended to his paper, Professor Weigert handsomely acknowledges that Dr. Koch has proved in the most convincing way that the virus of tubercle is represented by a specific form of bacillus, and he modestly hopes that his own piece of work may not be voted superfluous. "For the theory of the various *forms* of tubercle," he remarks, "researches of this kind are still decidedly necessary." We should be inclined to add that there can be no theory of tubercle at all, unless it be a theory of the various forms of tubercle; but although we might pursue that line of remark, we shall be better occupied in giving a brief account of Dr. Weigert's observations on "Tubercles of the Veins, and their Relations to Tubercular Infection of the Blood."

The observations recorded in this paper were made at the Leipzig Pathological Institute, and the post-mortem notes are models of thoroughness and precision. In five cases already published, the author had observed tubercles in the veins, and he now publishes ten more. There is only one case on record, besides his own fifteen, in which the implication of one or other vein of the body in the tuberculous process has been proved; but his own experience leads him to think that, for the future, no necropsy of general acute miliary tuberculosis should be regarded as complete unless the thoracic duct and the veins have been looked to. As a practical rule, it is well to begin with the pulmonary veins and the thoracic duct, and then to turn the attention to those veins that run near any old caseous centre. The author has found tuberculous formations most usually in the pulmonary veins, but he has found them also in as unlikely places as the thyroid and supra-renal veins. The discovery of tubercles on the inner wall of one or more veins in a case of acute miliary tuberculosis means, for Dr. Weigert, much more than that the inner wall of the veins has no immunity from tubercles, where the disease is generalised through the body; for him it means that the sudden generalisation of miliary tubercles comes from the tubercular spot in the interior of a vein, that this is the source of an infection of the blood, and of the tubercular deposit in all those various organs and parts that stand in a common relation only through the blood-supply. A contrast is sharply drawn between general acute miliary tuberculosis and all other tubercular formations in the body. The former are recent rapid, and simultaneous; the blood has been suddenly flooded with a considerable quantity of tuberculous poison, the source being a spot of tubercle obtruding on the inner wall of some vein. The author only incidentally deals with the origin of the pre-existing tubercles in the body, venous or other; his proper theme is the sudden dissemination of miliary tubercles by the blood, and the infection of the blood is traced to a particular spot of pre-existing or primary tubercle on the inner wall of one of the veins. It begins to be obvious that the author's facts concerning tubercular spots in the veins require to be valued apart from his interpretation of their significance. But we shall most fairly illustrate the kind of observation, and the author's reading of the same, by a brief summary of his first case.

The case was that of a male aged thirty-six, whose clinical history is entirely omitted. There was acute miliary tuberculosis, as defined for the present purpose, in many organs and parts; but there were also caseous bronchial glands, tubercular ulcers of the stomach, tubercular ulcers of the small and large intestine, tubercular peritonitis, caseous mesenteric glands, a tuberculous ulcer of the lower part of the rectum with nodules like peas or split-peas in the surrounding fat, and a solitary tubercle of the brain, all of which are considered as distinct from the acute miliary tuberculosis. In the author's own words, the latter condition has supervened upon an already existing tuberculosis of the small and large intestine, of the rectum and cellular tissue of the pelvis, as well as upon an older tubercular peritonitis. He will make no essential difference between the tuberculous quality of the formations in the earlier and in the later outbreaks; both are truly tubercular, but he thinks that the dissemination of the acute miliary tubercles requires a special and additional explanation, and he finds it in an irruption of tubercle into the interior of one of the pulmonary veins, the irruption proceeding from a tuberculous bronchial gland adhering to the vein. He considers that tuberculosis of the pulmonary and digestive tracts may be primary, as they are open to the direct action of tubercular poison coming in with the inspired air or with the food. He thinks also that tubercles of the liver, which occur with great frequency even when there is no general dissemination of tubercles by the blood, are due to the absorption of the virus from the intestine by the radicles of the portal vein, and that such absorption may take place directly out of the chyle, and in the absence of intestinal ulceration. Those are the *primæ viæ*, as it were, of tubercular infection: the infection of the blood, and more especially the sudden flooding of the blood with the virus of tubercle, is indirect or secondary, and it is brought about by the formation of spots of tubercle on the inner wall of the thoracic duct or of a vein. Perhaps the reader may fail to see why the virus cannot reach the blood in the subclavian vein by way of the thoracic duct, without tubercles forming on the inner wall of the latter. But the occurrence of such thoracic-duct tubercles, first described by Professor Ponfick, is interesting in itself. Equally interesting is the later novelty of vein-tubercles which we owe to Professor Weigert; and as an explanation of that sudden flooding of the blood with tuberculous virus upon which acute disseminated miliary tuberculosis is thought to depend, Professor Weigert's elaborate research deserves the closest attention and the most weighty consideration.

Pathologists in this country will doubtless now make a point of searching the veins for tubercles, and they will desire to hear what sort of appearances they ought to look for. To take an example: A pulmonary vein is cut open, and, in a branch of the second order, there is observed a broken-down thrombus-like mass extending into a branch of the third order; the peripheral extension of the mass is a smooth, whitish deposit, continuous with the wall of the vein, and it can be followed unbroken into a still smaller branch until it ends in what appears to be the occluded lumen of a minute vein. In another part of the same lung there is a small whitish miliary nodule seated on the inner surface of a vein of the third order. In the other lung of the same case, a branch of pulmonary vein coming from the apex has an elongated deposit on one side of its inner wall, the lumen being entirely free; the deposit is upwards of an inch long, about an eighth of an inch broad, and about a sixteenth of an inch thick, and is smooth on the surface. The interior of this deposit proved to be caseous; its peripheral layer was somewhat sharply marked off from the free surface of the vein, and was rich in round cells and bloodvessels, in the midst of which tissue lay epithelial-like cells and giant-cells, partly scattered, and partly in well-defined nodular clusters. The deepest part of the deposit contained essentially the same elements. The wall of the vein appeared to traverse the deposit, the deeper

portion of which at one end projected back from the vein. Tuberculous lymphatic glands lay close to it, but their tissues were not continuous. In another case, the source of blood contamination was found in the supra-renal vein; the vein, on being opened, was seen to contain a polypous mass nearly half an inch long, attached to the wall by a comparatively small surface, and otherwise hanging free into the lumen, for the most part smooth on the surface, but softened at the summit, the wall of the vein at the point of attachment being thickened and infiltrated with caseous matter, and in relation with a considerable caseous nodule (one of several) in the supra-renal substance. Other cases showed tubercles growing into the wall of the splenic vein, the portal vein, hepatic vein, vena azygos, innominate vein, left internal jugular, thyroid. It is recommended also to keep an eye on the renal, prostatic, and spermatic veins. The difficulties of this kind of post-mortem-room investigation are not to be under-estimated. When one remembers, says Professor Weigert, how often a beginner fails to find the thrombus from which an embolus of the pulmonary artery has come—he says nothing of those beginners who cannot even find the embolus itself—it is not surprising that they, as beginners in the search for tubercles in the veins, should many times have missed them. But those admirable records of the Leipzig necropsies show that the vein-tubercles are often there for those who have the patience and the skill to find them.

MR. HUTCHINSON ON CARLYLE.

THE session of the London Hospital Medical College has been this year opened by a remarkable and interesting address by Mr. Jonathan Hutchinson, which we publish to-day. We could hardly name anyone whose writings on surgical topics are turned to more eagerly and trusted to with greater confidence by the bulk of the profession than those of Mr. Hutchinson; and yet so many-sided is his ability that we doubt not that our readers will be glad that the mixed character of his audience (a company of ladies and gentlemen invited to a *conversazione*) compelled him to choose for this occasion a non-medical subject.

Mr. Hutchinson took as the basis of his remarks Mr. Froude's lately published "Life of Thomas Carlyle," and expressed his opinion that Mr. Carlyle was "perhaps, take him for all in all, the greatest man of the present generation." He applied to him the term "prophet," on the ground that "there is none other suitable," and that "we shall find in Carlyle by far the closest resemblance to such men as Jeremiah, Isaiah, and Ezekiel that the present age has produced." The main purport and drift of the address was to explain and enforce the lessons which Carlyle's life should teach, and to illustrate them by the light given by other leaders of contemporary thought whose writings have similar tendencies.

We have said Carlyle's "life," for the address dealt more with his life than with his work, if indeed we may use the words as denoting different things. That which is Carlyle's grand claim to gratitude and reverence, is not so much what he directly accomplished, or what he incited others to produce, as the spirit in which he worked, and which he kindled in the hearts of countless besides himself. Carlyle was not a many-sided man; quite the contrary. He had a great many minor faults and weaknesses. His biographies and histories, great as was the labour which they cost him, yet, considered merely as histories and biographies, do not show that fairness, judicial impartiality, exhaustive collation, and sifting of collateral facts of all kinds, which are the special perfection of this class of literature. Their great interest consists in the manner in which they are pervaded with Mr. Carlyle's own personality; the keenness of his sympathy with those whose motives and actions he thought worthy, and the fierceness of his denunciation of everything false and base; and, not least, by the vivid force of his literary style. He was not a discoverer, he laid down no new laws, originated no system. The morality which he preached is the same as that which good men everywhere and always have tried to realise. It was not that what he taught was new; it was the way in which he taught it,—the vigour with which, as Mr. Hutchinson put it, he "broke the bonds of formula," which though at first, it may be, expressing truth, had at length come to hide it; and again set forth in fresh, vivid, and startling language the living reality which the trite phrase had once conveyed. His personality was a great one. In Mr. Hutchinson's own language—"The unconquerable independence, the industry, the faith in the future, unclouded in the main by the deep-rooted melancholy of his nature, the sense of duty in his work, are features in which the character of Carlyle attains sublimity."

The greater part of Mr. Hutchinson's address was indeed devoted, not to the reiteration of the truths upon which Carlyle laid stress, but, if we may so speak, to the supplying the deficiencies of the Chelsea sage. "There was," says Mr. Hutchinson, "a great failing in his attainments—one which marred the happiness of his life, and which not only robbed him of the reward that was his due, but considerably diminished the usefulness of his teaching. He had not learned what we may, I think, without irreverence style the Religion of Patience, ... the power on all subjects to receive all facts without prejudice, to accept the work, imperfect though it may appear, which is done by others, to be hopeful and trustful under all circumstances, to bear our lot in life, when unalterable, without resistance and without complaint." One great support of this attitude of mind, in Mr. Hutchinson's opinion, is the doctrine of evolution, which Mr. Carlyle dismissed as too contemptible to be worth a moment's consideration. One of the most striking and beautiful points in the address was the reasoning by which Mr. Hutchinson justified this belief. "When we use such phrases as 'Survival of the fittest,' 'The battle of life,' 'The struggle for existence,' and the like, we by no means have regard to brute force only. Friendship is also a force, affection and love are forces of incalculable power, and it is with these that we have to reckon in estimating the prospects of the battle. That victory will in the long run be found on the side on which they are ranged, is certain, if we reflect for a moment on their nature. Love and friendship, as well as hatred and selfishness, will make use of material means and brute force in order to success. These means will be common to both, and since love leads to union, and hatred to isolation, love must of necessity in the end prove the stronger." So fertile in suggestion are Mr. Hutchinson's eloquent characterisations of Ruskin, Wordsworth, and Browning, "our poet-prophets," as he called them, that we might, if it were not beyond our province, occupy not one, but several articles in their consideration.

Mr. Hutchinson concluded by recommending to his audience a formula—"Prize strength, love beauty, practise self-denial, and be patient." Certainly this is a formula which fitly enough describes the spirit in which the study and practice of medicine should be carried on. Strength and beauty are manifestations of health, and that not merely of the individual, but of his progenitors; and it is fit that medical men should prize and love that which it is the business of their lives to promote in themselves and in others. Self-denial, too, is a virtue for the practice of which scarcely any profession offers more opportunities than our own. And to be patient is indeed most necessary. Examples of apparently successful careers, in which trickery, boasting, and

unscrupulous selfishness have been the chief characteristics, are numerous enough to make it necessary for the beginner to take a very large and calm view in order to convince himself that "ambition wins not more than honesty," and that a "patient continuance in well-doing" will, in the end, be the best for the individual as well as for the world.

THE WEEK

TOPICS OF THE DAY.

The present period of the year is the time selected for the holding of congresses, and before that devoted to Social Science had ended, the annual gathering of the Sanitary Institute of Great Britain commenced at Newcastle-upon-Tyne. The attendance at the great northern town has been quite up to the average, and the local authorities have exerted themselves efficiently to entertain their guests. At the opening reception held in the Town Hall, the Mayor gracefully acknowledged the obligations which the borough was under to the Sanitary Institute for the valuable information it had promulgated. In reply, the President-elect for the forthcoming year, Captain Douglas Galton, expressed his satisfaction that the first meeting of the Institute held in the North should have taken place at Newcastle. He took the opportunity of reminding his hearers that one of the objects of the Institute was the examination and certifying of municipal officers, whose duty it was to act in sanitary matters, and he pressed municipal authorities to encourage the efficient carrying out of sanitary duties by appointing only officers who were certified by the Institute as possessing the necessary knowledge. The inaugural address was delivered by Captain Douglas Galton, and amongst the papers read in the different sections was one by Mr. H. E. Armstrong, the Medical Officer of Health for the district, entitled "A Sketch of the Sanitary History of Newcastle-on-Tyne"; an essay on the "Sanitary Aspect of Dress," by Dr. Alfred Carpenter, read by Mr. Symons in the unavoidable absence of the author, who was in attendance on the Primate; and a paper by Captain Hildyard on the influence on sanitary progress which medical men might exercise in their private practice.

At the first meeting of the Marylebone Vestry held since the recess, a communication was read from the Local Government Board, forwarding extracts from a return prepared in pursuance of instructions of the Commissioners of Police of the metropolis, showing the nature and extent of the mortuary accommodation provided within the area of the Metropolitan Police district, and referring specially to the public mortuary of Marylebone, in Paddington-street. A complaint was made against the latter, that, in addition to there not being sufficient accommodation for the reception of dead bodies in comparison with the requirements of such a large district, there is no arrangement for making post-mortem examinations, or provision for the holding of coroners' inquests. Mr. D'Atte, in moving that the communication be referred to the Sanitary Committee, observed that this question had been before their Board a great number of times, but had, somehow, always been allowed to drop. Marylebone, which ought to have been the first, it would seem was one of the last parishes to provide proper accommodation for such purposes, and it was now time that a determined step should be taken in the matter. Mr. F. Hallam seconded the motion, and said, although this subject had been referred to a special committee in January last, that committee had taken no steps to suggest any improvement in the present unsatisfactory state of affairs. He had frequently been spoken to by the coroner on the subject; and as that special committee had done nothing, he should move, if this motion was carried, that it should be dissolved. The resolution was accordingly put and carried, and the special committee ordered to be dissolved. A parish holding the position of Marylebone should certainly set an example in providing a suitable mortuary, coroner's court, and all the necessary offices.

We last week alluded to the alarming spread of small-pox at the Cape of Good Hope. The danger to this country, in these days of rapid transit, is illustrated by the fact that on the arrival, recently, of the Orient Line steamship *Potosi* in Plymouth Sound, from Australia *vid* the Cape of Good Hope, it was found necessary to detain her, in consequence of her having a case of small-pox on board. The sanitary officer of the port found that the case was that of a young man, a second-class passenger from Sydney. When the vessel touched at the Cape he injudiciously went on shore, notwithstanding the prevailing epidemic there. On the passage from the Cape to England he was taken ill, and small-pox developed itself. The surgeon of the *Potosi* isolated him in a separate cabin on the upper deck, the cabin being kept carefully closed, and a watch maintained day and night, in order that no communication with the patient should take place, except under the superintendence of the medical officer. The case was fortunately a favourable one, and at Plymouth the patient was removed to the floating hospital-ship in the Sound. The medical officer carefully inspected all the second-class passengers and the crew, and finding no signs of any further development of the disease, permitted the passengers for Plymouth and the mails to be landed, the vessel being detained until the patient's cabin had been thoroughly disinfected.

Mr. Egerton Hubbard has put forward an appeal in this country for subscriptions on behalf of the new medical missionary for Delhi. He pleads on behalf of the indigent sick in Northern India, who are in the hands of ignorant native "doctors," who resort, through their ignorance, to practices which inflict the most cruel tortures on their patients. Lives are thus sacrificed, children maimed for life, and misery spread over all, for want of proper medical advice and attendance, which this mission aims at supplying. Hitherto the Delhi district, stretching to the north, north-west, and south of Delhi, fully one hundred miles in each direction, has been entirely without a medical man. Two ladies have been doing their utmost; but in a district so extensive and so populous it has been impossible for them to do half what is needed. The Cambridge Mission have therefore availed themselves of the services of Dr. Sen, a native graduate of Calcutta University, who will devote the whole of his time to this extensive district, and it is to meet this expense that subscriptions are now solicited. Mr. Hubbard's address is 23, Cadogan-place, S.W.

It is stated that the various collections made this year on behalf of the Saturday Hospital Fund will probably reach a total of £10,000, as against £8500 in 1881. With the exception of contributions or "new money" from factories and workshops which have had collecting-sheets for the first time this year, most of the collections among workmen long accustomed to contribute at their places of business remain to be received at the office of the Fund, it being understood that the Fund will be kept open until the end of October. So far, the collection-sheets have come in at the usual rate, and generally they show an advance upon preceding collections. The recent street collection realised £2300, including over two tons of bronze coins, as against £2000 realised in a similar manner in 1881. Applications to participate in the present year's collections have been received from sixty-four hospitals, thirty-five dispensaries, five convalescent homes, and two surgical appliance societies. The Hospital Saturday Fund has now begun to be regarded

by the industrial classes as a huge friendly society—at least, so it is maintained by its supporters—yielding fitting relief in cases of bodily accident or affliction; and in this view it is being more and more largely supported by them, although as yet the measure of their support cannot be considered as at all commensurate with the advantages they derive from the numerous hospitals and dispensaries of the metropolis.

The monthly return of the Registrar-General for Scotland, for August last, shows that in the eight principal towns of North Britain during that period the births of 3458 children and the deaths of 2110 persons were registered. The latter number is 160 under the average for the month during the last ten years, allowing for increase of population. A comparison of the deaths registered in the eight principal towns shows that during the month under notice the mortality was at the annual rate of 18 deaths per 1000 persons in Edinburgh, 19 in Aberdeen, 21 in Glasgow, in Dundee, in Leith, and in Perth, 22 in Greenock, and 27 in Paisley. The miasmatic order of the zymotic class of diseases caused 490 deaths, or 23·2 per cent. of the whole mortality. This rate was, however, exceeded in Glasgow, Dundee, and Perth. Fever caused 48 deaths; of these, 9 were tabulated as typhus, 38 as enteric, and 1 as simple continued fever. In Perth 11·5 per cent. of the deaths were ascribed to fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 282, or 13·4 per cent. Those from consumption alone numbered 259, or 12·3 per cent.

An outbreak of small-pox having occurred at Faversham, attention has again been called to the necessity of erecting a hospital for the isolation and treatment of infectious diseases in the locality. Upon the present occasion the first case of the disease was imported into the town by a bargeman from London, but there being no public accommodation for the isolation of the patient, the infection was communicated to others, and seven cases were reported, one of which proved fatal. This occurrence has led to the resumption of the negotiations between the Faversham Urban and Rural Sanitary Authorities, with a view to the erection of a joint hospital.

LONDON HOSPITAL MEDICAL COLLEGE.

The session at this institution was opened with an address by Mr. Jonathan Hutchinson, F.R.S., Senior Surgeon to the Hospital, which we publish in full. Afterwards a very successful and numerously attended *conversazione* was held. In the dissecting-room, illuminated for the time by Crookes's incandescent lamps, and decorated for the occasion, a concert was given. In the anatomical theatre the audience were placed in telephonic communication with the Savoy Theatre, and could thus hear the opera *Patience* by telephone. In the chemical theatre, photographs of Egypt, etc., were shown by Messrs. J. How and Co., projected on the new diaphanic screen, by the oxyhydrogen light. In other rooms a large collection of specimens illustrating the latest improvements in drugs, instruments, microscopes, and microscopic slides, graphoscopes, etc., exhibited by various well-known firms, was to be seen.

MINERS' NYSTAGMUS.

M. Dransart has lately read a paper on this subject before the French Association for the Advancement of Science. He is already well known as an authority on this subject, having made a communication upon it to the International Medical Congress at Amsterdam in 1879. In the present paper, which is based on ninety-nine cases, he arrives at the following conclusions:—1. Miners' nystagmus is due to a paresis of the organs concerned in the elevation of the eyes (both muscles and nerves), a paresis resulting from the fatigue of the elevators caused by the nature of the work (in low galleries, etc.). This paresis is independent of any central lesion of the nervous system, and of error of refraction. The general want of tone, anæmia, and defective illumination are secondary factors, important in, but not essential to, the production of miners' nystagmus. 2. There exists also in miners a hemeralopia intimately connected with the nystagmus, but which may also be found independently of it. 3. Miners' nystagmus is a curable affection.

THE PARIS WEEKLY RETURN.

The number of deaths for the thirty-eighth week of 1882, terminating September 21, was 932 (486 males and 446 females), and among these there were from typhoid fever 53, small-pox 6, measles 8, scarlatina 3, pertussis 4, diphtheria and croup 40, dysentery 1, erysipelas 1, and puerperal infections 5. There were also 40 from acute and tubercular meningitis, 179 from phthisis, 7 from acute bronchitis, 48 from pneumonia, 124 from infantile athrepsia (38 of the infants having been wholly or partially suckled), and 35 violent deaths (29 males and 6 females). The number of deaths is below the mean of the four preceding weeks. Those from typhoid fever have declined from the 75 of last week to 53; there were 6 from small-pox in place of 10, and 5 from puerperal infections instead of 8. The deaths from diphtheria, on the other hand, have increased from 27 to 40. The number of admissions for typhoid fever has increased from 175 to 233, and for diphtheria from 16 to 34. The diminution of temperature has been attended with a diminution of deaths from athrepsia to 124 in place of 149; and it is of interest to observe that this diminution relates exclusively to children brought up by hand—this fact confirming the opinion frequently expressed, which attributes the greater number of infants carried off in the warm weather by athrepsia to the changes undergone by the milk with which they are fed. The births for the week amounted to 1196, viz., 621 males (438 legitimate and 183 illegitimate) and 575 females (416 legitimate and 159 illegitimate): 87 infants were either born dead or died within twenty-four hours, viz., 57 males (46 legitimate and 11 illegitimate) and 30 females (18 legitimate and 12 illegitimate).

METROPOLITAN ASYLUMS BOARD.

At the meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last—the first since the recess,—the returns from the various hospitals showed that the number of fever cases remaining under treatment was 534, or an increase of 111 over the total of the previous fortnight, owing chiefly to increase of cases of scarlet fever. Exception was taken to the quality of the wine supplied for patients, and it was contended that, as stimulants were only ordered by the doctors when patients were greatly in need of them, the wines and spirits issued ought to be of the best quality. Sir E. H. Currie moved—"That, having regard to the fact that there are at the present time 500 cases of fever in the several hospitals under the control of the Managers, and only vacancies for the accommodation of thirty-five cases of scarlet fever, and also to the fact that many of the patients recently received into the Homerton, Deptford, and Stockwell fever hospitals are from parishes and unions in the neighbourhood of the hospitals at Hampstead and Fulham, the Managers do make application to the Local Government Board for permission to re-open the Hampstead and Fulham Hospitals for the reception of fever patients, more especially for the treatment of such cases as may arise in the parishes and unions in the vicinity of those hospitals."

He said that there was a continuous increase in the number of fever patients, the result being that Deptford Hospital was crowded, although it had only been re-opened for about a month. Homerton Hospital was more than full, and Stockwell had only room for seven more patients. It was not right, in his opinion, that those hospitals should be crowded when there were buildings at Hampstead and Fulham unoccupied, the patients from those districts being sent to the East-end hospitals. No fewer than sixty patients had been taken from Paddington and Hampstead to Deptford and Homerton. So far as the question of legality was concerned, they were advised by their solicitor that it was in their right to pursue the course he proposed. They could bring the strongest evidence to show that the re-opening of the hospitals would not be injurious to the neighbourhoods in which they were situated. In a fortnight's time several of the wards in the Hampstead Hospital could be got ready for the reception of patients. In justice to the East and South of London, he asked the Board to consent to the re-opening of the two hospitals, so that the accommodation intended for the benefit of the people of Deptford and Homerton might not be taken up by patients from Fulham and Hampstead. After some discussion, the motion was agreed to without dissent.

AN UNUSUAL SEQUELA OF DIPHTHERIA.

In the last number of the *Revue de Médecine*, Dr. Henri Leroux reports a case of diphtheritic paralysis occurring in a boy aged fourteen, in whom the predominant feature was the marked ataxy of both upper and lower extremities, while there was but little, if any, paresis of them, and no loss of cutaneous sensibility anywhere. The muscles reacted well to the induced current; the knee phenomenon was absent. It is probable that there was paralysis of accommodation, but there is no definite statement as to this point in the notes. In this case anæsthesia or analgesia could not be invoked to account for the ataxic symptoms. Dr. Leroux discusses the view that the incoördination might be due to the predominant action of certain muscles whose antagonists were more or less paralysed, and rejects it on the ground that careful faradisation did not reveal that one group of muscles was more affected than another. He therefore inclines to the opinion that this symptom was due to an alteration of the centre for the co-ordination of movements (wherever that may be) in the central nervous system.

SOME SANITARY PAPERS AT NEWCASTLE.

In a paper "On Arsenic in Domestic Fabrics," Dr. Lediard called attention to the fact that it was not only the wall-papers we must look to when we suspect a patient to be suffering from chronic arsenical poisoning, but that we must also suspect the carpets, curtains, etc.; nothing short of a chemical analysis should be accepted as demonstrative evidence that any given fabric did or did not contain any arsenic. In conclusion, he urged the necessity of a law prohibiting the use of arsenic in the manufacture of any kind of material used for wearing apparel or fabric used in house decoration. In a paper "On the Influence on Sanitary Progress which Medical Men might exercise in their Practice," Captain Hildyard, R.E., pointed out the great opportunities the medical man had for finding out any defects in sanitation, and the immense influence he could wield to have such defects remedied. In the discussion which followed, Captain Galton defended the profession from the charges that had been implied, rather than brought against them. He pointed out that they had been the originators of all the chief sanitary improvements of modern times, and denied that there had been any failure on the part of medical men to point out that diseases arose from the insanitary condition of houses. Professor de Chaumont re-echoed these opinions to a certain extent; but he thought that the teaching of hygiene in the medical schools was too much neglected. There is no doubt as to the truth of this charge: the vast majority of our medical students pass through their curriculum, obtain their diplomas, and settle down to practice, without having heard a single lecture upon hygiene, or opened a book in connexion with this subject. The reason for this is not far to seek: a knowledge of hygiene is not demanded of the candidate by any of the ordinary licensing bodies, and the ordinary medical student (not without some reason) never thinks of turning his attention to any subject that will not "pay" in his examination. We have no desire to augment the labours of the medical student unnecessarily, but if all the members of the medical profession were taught the main facts about drainage, contamination of water-supply, and ventilation, the benefit to the community at large would be incalculable.

THE YELLOW FEVER IN THE UNITED STATES.

The epidemic which has broken out in some parts of the United States does not at present seem of a very formidable character, although it causes great alarm wherever it has appeared. According to the *New York Med. Record*, September 9, the total number of cases which have occurred at Brownsville, Texas, is 1261 (nearly a fourth of the population), with 76 deaths. This mortality-rate of 6 per cent. is surprisingly low for a disease in which it has sometimes reached 75 per cent., and rarely falls below 10 per cent. At Pensacola, Florida, it is somewhat higher, viz., 6 deaths in the 20 cases that have occurred.

THE TREATMENT OF WOUNDS.

M. Gosselin recently made the following clinical remarks on the treatment of wounds at the Charité Hospital in Paris. They were *à propos* of a mixed wound—partly incised and partly contused—of the forearm, just above the wrist, and three or four centimetres long. Though not very extensive, the deep fascia was implicated, but none of the muscles. The wound was caused by broken glass. He had advised the use of a few sutures and a spirit lotion. His object was "to obtain immediate union—that is to say, cicatrisation of the lips of the wound in two or three days without suppuration." Even if this did not take place, it was hoped to succeed in a week or so, without either suppuration or granulation. This is the second form of healing, "intermediate between primary union and reunion by granulations; a variety which has been observed since the application of antiseptic dressings of alcohol. . . . I have hoped thus to secure one of two ends. Which shall I actually get? At least I expect the second, even if I do not secure immediate healing." But in cases of deep or contused wounds the indications are no longer the same, for such a wound will most probably suppurate. What means are then to be taken? What physiological method can be used to secure immediate union? By immediate closure and alcohol dressings the development of inflammation is avoided; but otherwise, healing is preceded by congestion, effusion of blood on the surface of the wound, an exudation of plastic material, and the formation of granulation tissue. The alcohol dressing is intended to diminish inflammatory action and to prevent the development of a pyogenic membrane. Two considerations present themselves in this treatment of wounds. First, the theory of atmospheric germs in contact with the surface of a wound, and the development of vibrios, by which a putrid condition of the

fluids bathing the wound is brought about. Hence, by an occlusive bandage, and the use of antiseptic substances, notably alcohol, the action of the germs on the wound, the putrefaction of the liquids, and the consecutive inflammatory troubles, are avoided. It is true that we cannot see these germs, but their presence is generally accepted as a fact. There is, however, another consideration. It is this:—On the surface of a wound there are the tissues, the bloodvessels, and blood. What action have the antiseptics on these? They bring about the coagulation of blood in the open capillary vessels, and, as a consequence, their occlusion; they coagulate the albuminous materials of the blood in the interior of the vessels, as well as on their exterior, and so render the wound imputrescible, or at least less putrescible. These antiseptic agents are therefore very useful. It is true that there is always a little obscurity about this; nevertheless, this double *rôle* of occlusion and antiseptiticity is fairly intelligible. All antiseptics have the same action—alcohol, camphorated alcohol, or carbolic acid,—but some have the coagulating power so strong that they cause gangrene of tissue and the formation of eschars. Therefore we must select our antiseptics with care, and bear in mind that something depends on the patient as well as something on the wound itself.

A NEW CAUSE FOR MERCURIAL POISONING.

Two cases having recently come under our notice in hospital practice of mercurialism in men employed in exhausting the little globes used in the incandescent system of electric lighting, we think a brief notice of the fact will be interesting, and may perhaps call forth more information from others. In each instance the gums were swollen, spongy, and tender, and there was salivation. The patients were employed in the same room, and both knew that mercury was the cause of their ailment. So far as we could gather from their account, the poisoning must have been due to mercurial vapour from the exhausting pumps, as no mercury was used except that contained in these pumps. From the statement of one of the patients we should infer that all those employed in the room would suffer from these symptoms, and have to give up the work in less than a year.

THE EFFECTS OF THREAD AND ROUND WORMS ON CHILDREN.

M. ARCHAMBAULT recently made some clinical remarks at the Hôpital des Enfants Malades, Paris, on the effects produced by the *Oxyurus vermicularis* and the *Ascaris lumbricoides* in young children. He said one of the smallest and most curious worms, the presence of which causes so much trouble to young children, is undoubtedly in the so-called "thread-worm," the *Oxyurus vermicularis*. This helminthe has its abode in the lowest part of the rectum, just within the anus. It is the cause of a number of troubles, and of very severe itching, which is chiefly nocturnal, and therefore often characteristic of the presence of this particular worm. The itching is sometimes so severe as to make children cry; it prevents sleep, and so gives rise to extreme irritation, which may bring on convulsions. This worm is also met with occasionally in adults, and has, by the intolerable itching to which it gives rise, brought on a veritable condition of hypochondriacism. Another effect, in certain cases, is an inflammation of the rectal mucous membrane, accompanied with tenesmus and muco-sanguinolent stools. In female children the worms may find their way into the vagina, and so bring on a vulvitis, more or less intense, with secondary effects which are most undesirable. Thus, although the presence of these minute worms is not in itself dangerous, yet the secondary consequence may be really grave. Their treatment is as follows: Administer an enema, for five or six consecutive evenings, of lime-water; if this is not sufficient, add—as Dr. West advises—a little perchloride of iron, and the worms will be almost certainly destroyed. Or a mercurial suppository may be tried if the enemata do not succeed. It is very desirable that the enema be properly administered, and in sufficient quantity; it should pass up as far as, or even beyond, the sigmoid flexure, so as to dislodge any worms which may have crept up beyond their usual site. As regards the lumbrici, it may be said that they are harmless ("*asses innocents*"); it is only when very numerous that their presence becomes dangerous. M. Archambault was once called to see some children who had just arrived from Brazil, and who had been taken ill with convulsions, vomiting, and diarrhœa. Finding in the stools a number of these round worms, he ordered calomel and santonin. An immense number of worms was passed—"it would be no exaggeration to say that the three children in three days passed a hat-full of these helminthes." There are so many other anthelmintics than those just mentioned, that the physician's chief difficulty is the *embarras du choix*.

THE IMPROVED SANITARY CONDITION OF MAIDSTONE.

As shown by the annual report of the Medical Officer of Health, Mr. Matthew A. Adams, on the sanitary condition of the borough of Maidstone during the year 1881, the increase of population in this locality is somewhat behind that of the remainder of the county. But, although the birth-rate for the year (32·92) is below the average, the death-rate (14·19 per 1000) is also so low that it is claimed for Maidstone that a comparison of the death-rate with other towns would place her nearly, if not quite, at the head of the list. This is surprising when it is considered that during the past year the town was more than once visited by small-pox, and that in September Mr. Adams published a special report on the outbreaks of the disease. The present report, however, bears testimony to the manifest changes for the better which have taken place in the poorer quarters of the town: parts which a few years since were reeking with cesspool abominations are now, in most cases, well drained, and by comparison clean and wholesome; and with this change the general tone of the people, from a sanitary aspect, is greatly improved. Where formerly periodical inspections were met by cold indifference or rude repulse, they are now welcomed with cheerfulness or abashment, in proportion to the expectation of praise or blame This propitious change has been greatly helped forward, Mr. Adams remarks, by the erection of a large number of artisans' dwellings during the past few years in different parts of the town, which, by taking the pressure off from the older and less eligible quarters, has relieved the very poor and the better-class artisans, and has, at the same time, put the owners of the inferior property to the necessity of cleaning up their premises, to make them more attractive—all tending to sanitary improvement. It is also matter for congratulation that, after much difficulty, a most eligible site has at length been secured for the erection of a new hospital for the reception of infectious cases; so that it must be conceded that, under the careful supervision which it evidently possesses, Maidstone has no fear of deteriorating, at least from a sanitary point of view.

THE BACILLUS OF TUBERCULOSIS.

THAT defective ventilation, or, in other words, vitiated air, is one of the most, if not the most potent factor in the production of tuberculosis, is among the best-established facts of hygiene, however the actual relation may be explained. In the Biological Section of the meeting of the British Association for the Advancement of Science, Mr. F. J. Faraday read a paper entitled "Considerations arising

from Koch's Discovery of the Bacillus of Tuberculosis," in which, after referring to the suggestion made by Dr. Wm. Roberts in his address to the British Medical Association in 1877, that disease-germs might be "sports" from harmless saprophytes which had acquired a parasitic habit, and to Pasteur's observations on the decreasing virulence of specific disease-germs when kept in the presence of oxygen, he asked whether deprivation of oxygen might not play an important part in the development of the tubercle-bacillus out of comparatively innocent forms. Dr. Angus Smith has argued that putrefaction carried on in confined spaces, as sewers, may give rise to disease-germs—enteric, diphtheritic, etc.—which are not developed when the same process goes on in the open air and in rivers; and Mr. Faraday thought that analogous conditions might be found in the lungs of persons engaged in dusty trades, working in ill-ventilated rooms, or otherwise habitually respiring imperfectly. Innoxious germs inhaled into the lungs of such persons may there undergo successive cultures in the presence of a reduced amount of oxygen, and thus, in course of time, develope into the specific bacillus of tubercle, which may then be capable of establishing itself in the lungs of healthy persons, provided they be especially susceptible or possess feeble powers of resistance. The decrease in the mortality from phthisis in the army following on improved ventilation of barracks, the benefit of as many hours as possible spent in the open air, of sea-voyages, and of iodine or carbolic inhalations in phthisis, all seem to lend support to the hypothesis.

RAPID DECOLORISATION OF THE HAIR ASSOCIATED WITH INTENSE NEURALGIA.

M. Raymond has narrated, in the *Revue de Médecine*, the case of a lady aged thirty-eight, who came under his observation suffering from neuralgia of the scalp. She was very pale, and had black hair. After several days of acute suffering, the record states that "one evening the neuralgia of the head was truly atrocious; morphia was quite powerless to relieve her. At two o'clock on the following morning the pain was at its worst. At this moment the hair had its normal colour; at seven o'clock the same morning it was found that her hair was almost completely decolourised." It is remarkable that at first the greater part of the patient's hair became red, turning to white a few days later; and later still falling off in considerable proportion. The case affords an absolute contradiction to Kaposi's theoretical view that blanching of the hair can never take place very rapidly, but *must* require several weeks for its completion.

VITAL STATISTICS OF SCOTLAND FOR THE SECOND QUARTER OF 1882.

The quarterly return of the Registrar-General for Scotland for the period ending June 30 last, shows that 33,346 births and 18,293 deaths were registered during the three months; both birth-rate and death-rate were below the average of the corresponding quarter of the ten years immediately preceding, the former by 0·162, and the latter by 0·241 per cent. Of the eight principal towns, Greenock had the highest and Dundee the lowest birth-rate. For every 10,000 inhabitants, the births were at the annual rate of 423 in Greenock, 405 in Glasgow, 393 in Leith, 384 in Paisley, 368 in Aberdeen, 357 in Perth, 349 in Edinburgh, and 330 in Dundee. The illegitimate births were 2635, or 7·9 per cent. of the whole, and were much more frequent in the North-Eastern and Southern divisions than in other parts of the country. The proportion of males born to females was as nearly as possible 105 of the former to 100 of the latter. The 18,293 deaths registered constituted an annual proportion of 193 deaths to every 10,000 of estimated population; the average rate for the corresponding quarter of the ten preceding years was 2·171. In England, during the second quarter of the present year, the annual rate was nearly 190 for every 10,000 of estimated population, or 3 per 10,000 less than the death-rate for Scotland. In Leith, during the period under notice, the annual death-rate per 10,000 of estimated population was 166; in Dundee, 182; in Edinburgh, 205; in Aberdeen, 217; in Greenock and in Perth, 237; in Paisley, 251; and in Glasgow, 256. Zymotic diseases caused 398 deaths in April, 409 in May, and 402 in June, and constituted about 17·5 per cent. of all deaths referred to specified causes during the quarter. The remarkable freedom of Scotland from small-pox is shown by the fact that not a single death from that disease was registered during the quarter. From the meteorological returns for the period it would appear that the most notable feature of the weather of April last was the check in the monthly range of the mean temperature, April having been no higher than March, and hence being the first month of the year which had not a mean temperature above the average of the same month in former years. At the same time, although the wind was oftener in the east than in former Aprils, there was an extra amount of rainfall and an extra force of the wind, as well as a low and much disturbed barometer. The month of May was nearly an average month, the mean temperature being only half a degree above the average of the last twenty-six years, and the rainfall but little greater than the average in amount, and equal in number of days of falling. The weather of June was characterised by a low barometric pressure with great range, low temperature, and much rain, though the humidity was small. The rainfall was large, and the time of falling considerable all over the country, or nearly equally on the east as on the west coast. There was much east wind during the month, but a rather greater quantity of west wind; its strength on the whole, however, was not remarkable.

HOSPITAL ACCOMMODATION FOR CHILDREN IN PARIS.

The question of the improvements that ought to be introduced into the children's hospitals in Paris has recently (August 29) been the subject of discussion at the Académie de Médecine, on a paper by M. Marjolin, who advocated the following resolutions which were unanimously adopted by the meeting:—1. To lower the age for admission into the children's hospitals. At present the limit is two years; it was suggested that this should be sixteen or eighteen months. 2. To increase the number of beds devoted to sick children by the creation in Paris of new hospitals. 3. To keep those children affected with contagious diseases totally distinct from others. 4. To erect outside Paris one or more hospitals more especially intended for children whose health or diseases demand prolonged care and treatment. 5. To establish in the children's hospitals the same classification of medical or surgical affections as is used in the case of adults. 6. To create a special service for young epileptics apart from those at the Bicêtre and Salpêtrière. And lastly, to preserve and improve the treatment at home, when the sanitary state of the dwelling and the means of the family permit of this, and when the disease is not contagious.

Dr. Turbin, of Tiflis, has recorded an example of congenital absence of the left kidney in a prisoner sixty years old. The ureter on the same side was absent; at the site of its termination in the bladder a diverticulum a few centimetres long existed. The size of the only kidney is not given. The author gathered eight cases from literature: five times the left was wanting, in three the right. To this O. Petersen, from whose abstract in *Deutsche Medicinal Zeitung* this report is taken, says that only once the (left) kidney was wanting in 1500 post-mortem examinations of his own.

Many medical men and medical students, in London and elsewhere, will hear with surprise and deep regret of the death, on Monday last, of Dr. R. Wishart Lyell, one of the most promising of the younger metropolitan surgeons. He had already obtained several important hospital appointments, and his loss will be especially felt by the staffs of the Middlesex and the Great Northern Hospitals. A brief obituary notice of Dr. Lyell will be found elsewhere in our columns.

The Obstetrical Society of London held their first meeting of the present session on Wednesday last. The Ophthalmological Society will hold theirs on Thursday, the 12th inst.; and that of the Clinical Society will be held on Friday, the 13th.

FROM ABROAD.

Antipyretics in Typhoid Fever.

In a clinical lecture delivered at the New York Hospital (*New York Med. Record*, August 19), Dr. Draper observed that the fever in typhoid is naturally very exhausting, the patient emaciating rapidly because of the active combustion of the tissues, due to the high temperature. When the fever is at its height, the patient usually assumes the dorsal decubitus, and shows all the signs of extreme exhaustion. There is no muscular movement, no expression in the features, but a vacant and dull look. The fever is simply the using-up of the patient, consuming the energy that is set free. Hence, for each degree of reduction the danger is correspondingly lessened. To reduce the temperature is, therefore, the most essential feature. Proper adjustment of the clothing, and proper attention to food and drink, are necessary. Besides their cooling effects, drinks also facilitate peristalsis and assist in removing matters produced in the retrograde movement. It may even be necessary to act on the bowels to depurate the system of these effete materials. *Rest* is absolutely essential. The patient should be protected from any source of irritation, and there should be no muscular efforts whatever. This should be insisted upon, as patients often exhaust themselves greatly during the early stages, and thus lessen materially their chances of recovery. *Diet:* A milk diet is the best in the great majority of cases. Some persons cannot take a purely milk diet for long; and in such cases animal broths may be given. But these must be fluid, concentrated, and rich in all the elements of animal fibre, and not merely a solution of a few salts with extractive matters. *Quinine:* Extraordinarily large amounts of this drug are needed. In other fevers—*e.g.*, malarial, surgical, etc.—quinine exerts its specific power in moderate doses, but these produce no such effect in typhoid. *Alcohol:* As to the utility of this as an antipyretic in typhoid, and in cases of high temperature from any cause, there can be no question. At the same time, its action in fever is explained not only by its antipyretic effect, but also by its stimulating and supporting the heart, and by its supplying something—a "food"—out of which force is eliminated for the vital functions. It is a very unstable hydrocarbon, and is therefore very combustible. In the body it has the same combustibility, and thus eliminates energy and obviates the loss and exhaustion resulting from the combustion of the patient's tissues. The same would obtain of any food, the latent force becoming the active energy of the body. One of the most striking effects of alcohol is the almost utter impossibility to intoxicate in high fever. When alcohol circulates in the blood, when it produces its specific effect, it intoxicates; but when consumed like any other food, this specific effect is not shown. The power to digest alcohol varies in different persons. In some a teaspoonful may cause intoxication; others take large quantities in health, and experience no effect whatever. This is principally due to a greater power of digestion for alcohol, and the same is found even for ordinary foods. In febrile conditions, however, the ability to consume is uniform. In typhoid and similar fevers a patient will take large quantities of alcohol (even a quart of brandy in twenty-four hours) without any of the usual symptoms of alcoholism, any of the cerebro-spinal effects, or even any other, upon the health. Also, the patient is not only not rendered delirious, but the delirium is quieted by alcohol. He thus obtains possession of his senses by those means which, under other circumstances, would deprive him of them. This action of alcohol is of specific value not only in typhoid, but in all fevers and at all ages. Even infants are able to tolerate doses in fever which otherwise would set them wild. There is only one explanation of this. Alcohol, being very combustible, is oxidised, and split up by the fever into its elements —H_2O and CO_2, water and carbon dioxide—thus by its decomposition liberating its potential force and saving combustion of the patient's tissue.

The feeding of fever, therefore, constitutes one of the most important elements in its treatment. For this purpose, alcohol as a food is most easily disintegrated, and yields most readily its power. Hence it is indicated in all continued fevers when the patient is suffering from the effects of combustion. Alcohol also stimulates the nervous centres. The heart becomes more steady and firm, and the first sound, which may have been feeble or absent, becomes distinct. By its stimulating effect it will also quell the delirium and control the locomotor disturbances. It is required when the patient exhibits symptoms of great nervous prostration, with subsultus, delirium at night, jactitation, with a position in bed indicating great physical debility, and a very dry tongue—all coming on with the increase of temperature. If alcohol be administered it will quiet the delirium and locomotor derangements; the patient will sleep quietly, the tongue will become moist, and the whole aspect of the case will be changed for the better. If, however, it increases the frequency of the pulse; if the delirium become more active, the tongue more dry, and the skin hot and parched; if the motor spasms, tremulousness, subsultus, and restlessness are aggravated by alcohol,—it is doing harm. In all cases it is important that the temperature fall and the pulse become less frequent until regulated from one twelve hours to another. In regard to the administration, the potent property lies in the amount of alcohol. Brandy or whisky is preferable to fermented preparations. It is exceedingly desirable to prevent anything like fermentative dyspepsia; hence wines, and especially beer, should be avoided. Old wines have been thought to be excellent. Alcohol, however, does the good, and the simplest way of giving it is the best. It is best taken with the food, and given with milk it is diluted and rendered bland. The amount varies with the patient. This consideration needs careful and intelligent observation of the symptoms. There is no strict law. It should be given until the desired effect is obtained. The amount usually ranges from four ounces to twenty-four ounces; but in the majority of cases it will be necessary to give the largest quantity in the twelve hours from 6 p.m. to 6 a.m. During this period the vital powers—as exhibited by the respiration, pulse, and temperature—reach their lowest. Therefore the greatest failure in these hours needs the greatest amount of stimulation.

Complications.—The principal accidents which may imperil the patient are congestion of the lungs, perforation of the intestines, and perforation of a bloodvessel. 1. Cough is almost always present, dependent upon a moderate degree of bronchial catarrh. There is always more or less congestion at the base of the lungs, owing to the feeble circulation, the dorsal decubitus, the weakened muscular fibre, and shallow breathing. A good plan is to have the patient sit up for a while, or change his position, in order that by forced inspiration the lungs may become more inflated. It is always necessary to increase the force of the heart's action. Oil-silk jackets may be used, or the patient can be wrapped in cotton. If the bronchitis is severe, dry cups should be applied. 2. Intestinal perforation makes the prognosis more serious. It is possible to produce a reaction sufficient to set up a peritonitis; nevertheless, as the patient is in a state of complete collapse, and in immediate danger, stimulants and opium are indicated. Opium has a most beneficial effect on the heart, and should be given at once hypodermically to insure a speedy effect. 3. Blood in the stools, indicating that a bloodvessel has been perforated by one of the ulcerating Peyer's glands, is a grave and serious symptom. Absolute repose should be secured, and the diarrhœa, and even the patient's desire to defæcate, be controlled, if possible. Opium is therefore indicated, and styptics should be administered per anum.

REVIEWS AND NOTICES OF BOOKS.

Experimental Researches on the Temperature of the Head. By I. S. LOMBARD, M.D., formerly Assistant Professor of Physiology in Harvard University. London: H. K. Lewis. 1881. Pp. 101.

In this little work the author publishes a series of observations on the normal temperature of the head, and on the effect upon it of voluntary muscular contractions and of variations in the temperature of the air.

From 6000 observations, made "on three subjects, the mental and physical conditions of whom were thoroughly known to the experimenter, and under circumstances where all external influences likely to affect the result were under careful supervision," he infers the absence of a constant superiority of temperature on one side of the head, in opposition to Broca, Gray, Maragliano, and Seppilli, who came to the conclusion that the left side has uniformly the higher temperature. The fluctuations do not appear to follow any definite law, and the causes of the irregularities are so complicated and of such an unmanageable nature as, in the author's opinion, "to throw grave doubts on the reliability of conclusions drawn from examinations of the temperature of the head in disease"—doubts which must be considered very legitimate if a thorough knowledge of the mental and physical condition of the patient be a necessary preliminary to the observation. In 1880, Dr. Amidon, of New York, published a series of observations by which he sought to prove that willed muscular movements cause appreciable elevations of temperature at the surface of the head, and that each muscle has a thermic centre in the cortex of the brain, so that contraction of a muscle produces a measurable change of temperature in a circumscribed area of the overlying integument. For example, contraction for from five to ten minutes of the right orbicularis palpebrarum produced a rise averaging 0·342° Cent. (the extremes being 0·833° Cent. and 0·138° Cent.) in a space having a diameter of eighteen millimetres, and situated about 100 millimetres above and a little to the rear of the left external auditory meatus! The author, assisted by Dr. F. Haynes, of Leamington, made numerous experiments according to Dr. Amidon's directions, but failed to obtain any evidence confirmatory of his surprising results. In less than 4 per cent. of the experiments was there any rise of temperature observed due to muscular contraction, and in the majority of cases no change of temperature occurred. Still the writers consider that in a certain number of cases muscular movements do in some way cause a disturbance of the temperature of the head, the variations of temperature being greater than those ordinarily met with in the quiescent mental state; but in what way these variations are connected with the muscular movements is not clear.

From a further series of observations, the author thinks that as the average temperature of the air falls the average temperature of the head likewise declines, but that the fall in the head is but slight compared with that in the air. The book, necessarily from the nature of the subject, chiefly consists of tabulated figures; and much time and trouble must have been expended in making the observations.

Chemistry: Inorganic and Organic. By T. W. DEINKWATER, F.C.S. Edinburgh. 1882. 12mo. pp. 153.

Not a text-book, but intended, as the author tells us, to enable the student "to recall the principal facts of the science in the unsettled and troublous times preceding examination";—in other words, to relieve him of the valuable mental exercise of sifting the mass of facts and impressions received by reading or other instruction, and of giving order, exactness, and permanence to all that is essential to the purpose. It will be, doubtless, very useful to such as are too indolent to do for themselves what no one can do so well for them—for another man's analysis of a work or a subject, like another's experience, may be a good example, but can never take the place of one's own. We notice a few misprints besides those given in the *errata*, and some awkward constructions coming of extreme condensation; and we must say that the symbols θ for the application of heat, and √ to indicate a precipitate, though generally used in Edinburgh, look strange to a mathematician's eye. A different (say condensed) type or an asterisk prefixed would have answered the latter purpose as well. The organic part is very scant, in accordance with the demands of the Edinburgh examinations, but surely aniline and the salicylates deserve more than the barest mention among the reactions of benzol and phenol respectively. There is a complete index, and, on the whole, the little book is as good as such a work can well be.

Die Topographische Percussion im Kindesalter. (*Surface Landmarks in Children as Revealed by Percussion.*) By Dr. HERMANN SAHLI. Berne: J. Dalp and Co. 1882. Pp. 195.

The greater part of this work is occupied with the normal topographical anatomy of children, only one-tenth being devoted to disease. In the beginning of the book a table is given, showing the position of the nipples at different ages, the length of the body, the distance of the nipple from the mesial line and from the mid-axillary line, the circumference of the half-full chest at the level of the nipple, and, lastly, the relation between the distance of the nipple from the median line and the girth of the chest. For this compilation Dr. Sahli is indebted to his friend Dr. Repond. Our author comes to the conclusion that the variations in the position of the nipple are so small that we need not reject it as a landmark. The site of the navel, on the contrary, is found to be very inconstant, and is of little use as a guide in physical examination. Other measurements, taken chiefly from other works, showing the length of the body at different ages, the length and breadth of the sternum, and other such matters, can hardly be of much utility from a practical point of view even in medico-legal inquiries.

On the method of percussion in children the author remarks that the unequal force of the percussion-stroke is the most important reason why such different results are obtained at different times or with different observers; to remedy this an instrument has been perfected by him, which we have neither the space nor the inclination to describe. Such contrivances are, in our opinion, subversive of the very foundations of proper medical education of the "muscular" and other senses.

The special part of the book abounds in the literature of the landmarks of the chief viscera. The dimensions, situation, and percussion of the different organs are successively dealt with, a very long chapter being given to percussion. We welcome some facts on the position of the heart's apex-beat in healthy children, though we could have wished to have had a greater number of investigations. The difference between children and adults in respect of this point has been pointed out in this country by Dr. Gee (see "Auscultation and Percussion," page 30), and anyone who works at a children's hospital soon realises the truth of his observation. Dr. Sahli found the apex-beat five times in the fourth space, and eight times in the nipple-line (total of eighteen cases). Our author belongs to that school which percusses with great minuteness; we find that he is able not only to map out the deep cardiac dulness, but he also goes in for the corresponding outline of the liver and spleen. In England there may be found men of good ear who fail, on their own admission, to satisfy themselves of the exact boundary of the heart's deep dulness. Dr. Sahli, to do him justice, does admit other authorities on the question, but yet maintains that it is possible to mark out by percussion that part of the spleen which is covered by lung. Under the heading "Thymus," the author evidently regrets that medical literature does not afford more information concerning the shape, situation, and size of the thymus as revealed by percussion. A table is given which shows, in different columns, the age, length of body, breadth of thymus-dulness on either side of the median line, breadth of sternum at level of second rib, whether the dulness is greater at the upper or lower part of the sternum, and how much the thymus-dulness goes beyond the borders of the sternum. Four statements are made, which, briefly, come to these:—1. Asymmetrical dulness over the upper part of the sternum (there being no abnormal condition of thorax) is *most likely* due to thymus gland. 2. Mere dulness at upper part of sternum is only *probably* thymus. 3. But little-marked symmetrical dulness gives no notion of what

there may be. 4. The younger the patient, the more the chances are that we have to do with thymus. These propositions appear to us to imply a good deal. We should seem to have arrived at a mode of percussion akin to the logical fallacy of arguing in a circle. One percusses the new-born babe with the preconceived notion that the thymus is there, and ought to support the fact of its presence and dimensions by means of proper percussion-signs. We are glad to find that Dr. Sahli does not burden us with tables of the percussion-outline of the kidney. We are content to let Piorry percuss out kidneys and swollen Peyer's patches, and to let him say such delicacies are sour grapes to us.

Practische Beiträge zur Kinderheilkunde. II. Heft: Rachitis. Von Dr. ADOLF BAGINSKY.

Practical Contributions to the Diseases of Children. Part II.: Rickets. By Dr. ADOLPH BAGINSKY. Tübingen: H. Laupp. 1882. Pp. 118.

DR. BAGINSKY discusses his subject from the following standpoints:—1. What is the nature of the rachitic process? (*a*) Is rickets a local disease of the skeleton? (*b*) or is it a constitutional disease? 2. What is the nature of the *noxa* which brings about this local or constitutional disease?

The method of inquiry was twofold—clinical examination and experimental proof. The clinical examination inquired into the changes which rickets causes in the child. The symptoms were taken separately and collectively; and when those which were proved to be clinically essential to the disease had been made out, they were then submitted to a further experimental inquiry. The author's "material" consisted of 627 cases (347 boys, 280 girls), which had come under observation in Berlin between 1872 and 1881, varying in age from three months (of which six cases) to thirteen years (of which one case), the larger proportion of cases ranging from eight to twenty months. The author formulates the following:—"The older the child when attacked by rickets, the less marked will be the changes in the skull; while those of the thorax, the vertebral column, and the limbs will be the more pronounced." And further, that "when a child is attacked with rickets at the close of the second year of life, the deleterious influence of the disease is less obvious on the general constitution, while the local anomalies of the skeleton become more marked." After discussing at considerable length the effect of the rachitic process on the growth of the child, he shows that the development of rickety children is considerably interfered with both as regards absolute and comparative measurements; while their deficient and varying weight shows the effect of the disease on their general nutrition. On dentition the effects are said to be delay in appearance of the teeth and a lessening of their durability.

As regards craniotabes, our author believes "that thinning of considerable areas of the occipital and parietal bones occurs in healthy sucklings of three to six months." On the other hand, he says that the craniotabes of Elsässer occurs in rickety children at a much later period, "and at a time when healthy children no longer show traces of this physiological thinness of the cranium." In the later cases the rickets is undoubtedly the cause. The condition, as pointed out by Virchow, is by no means confined to the hinder parts of the head; it may be found at places in which brain-pressure, as a cause, can never come into consideration. Another argument against hydrostatic pressure is the localised condition of the patches of craniotabes; if this condition depended on internal pressure it would be more generally diffused, while, in fact, it is generally found in scattered patches.

The pathological anatomy of rickety bones may still be summed up as irregular ossification. According to Virchow, it would seem that at the growing margin of a rickety bone there is not, as under normal conditions, at one place cartilage, at another calcification, at a third, bone with marrow-substance; but that all these stages are mixed up together—here marrow, there ossified bone, then calcified bone, with islands of cartilage intermixed. So the whole process is to be regarded as a disease of cartilage and of bone, in which the change is less softening of actual bone than neo-ossification of the newly growing layers. Schwalbe supports Tomes's and De Morgan's view that all young bones are formed by intramembranous ossification, and that they only assume the permanent method of ossification in lamellæ after the sixth month of life; he believes that in rickets this lamellar ossification takes place at a much later period. Kassowitz, in his latest researches, suggests that the condition of the blood and of the nutritive juices plays an important etiological part, which has been somewhat too much overlooked. The chemical changes are next alluded to: from these it appears that rickety bones are deficient of about one-third of their lime constituents.

Coming to the etiology of rickets, the hereditary nature of the condition is referred to. Contrary to the opinion of Ritter v. Rittershain, our author inclines not to believe in it; at any rate, he thinks the data on which to form an affirmative opinion are not yet to hand. He concludes that "the production of rickets does not depend upon any single noxa, or not usually so, but that various kinds of pernicious influence—especially alterations in the nutritive juices of the body—are the active principle of this change."

We cannot follow our author further, but would recommend those who are interested in the subject to the monograph itself. Without containing anything which is startlingly novel, it will yet be found a good summary of what is known about this far-reaching disease.

Médecine Vieille et Médecine Nouvelle. (*Medicine, Old and New.*) By Dr. M. SEMMOLA, Professor of Therapeutics at Naples, etc. Paris: Baillière et Fils. Pp. 105.

THIS little book is a translation, by Dr. Girerd, from the Italian, and contains a prologue by the author. We have perused these hundred pages with unfeigned pleasure. Dr. Semmola has a ready wit, and puts things in a pleasant way; and in many passages his language glows with the fire of eloquence. The subjects touched on are varied and pleasantly contrasted; and the phrases used for headings are happily chosen. Dr. Semmola beats out a safe path: we find here no scoffing at the teachings of the past; no undue disregard to those of the present; and an unbiassed outlook to the future. Our author stands by the method and works of Hippocrates; honours Paracelsus (who was more Lutheran than Luther); pays respect to Virchow and also to Cohnheim, though regarding the latter as a little romantic; teaches his hearers to eschew mere empiricism; points at the fallacy of polypharmacy; and finally gives in his adherence to the true method. The book is altogether pleasant to read, and its sentiments such as may be echoed by every wide-minded individual.

Du Développement du Typhus Exanthématique. (*The Causation of Typhus.*) By Dr. ROBINSKI. Translated from the German by Dr. GÉRARDY. Paris: Baillière et Fils. Pp. 112.

DR. ROBINSKI endeavours to show that bad water and bad nourishment are amongst the most potent influences in the causation of typhus fever. One merit this book has—Murchison is freely followed and largely quoted. But we are sorry to see that the author does not pay more real respect to this authority. This sentiment is not a piece of conservatism or slavish respect for authority. We say we are sorry, because the actual facts and inferences presented in the "Treatise on Continued Fevers of Great Britain" strike us (and here we come to a matter of opinion) as having so much more native strength than the actual facts and arguments which Dr. Robinski has to adduce. Our author dwells on the epidemic in the village of Tylitz (Western Prussia) in 1867-68, and states occurrences which, to him, conclusively show that the use of stagnant water had a most powerful influence in the development of typhus. Later on, in dealing with the *rôle* which bad food may have to play in the generation of this fever, the notion that overcrowding and want of ventilation have much to do with its origin and spread is run down. Seeing what we see and hearing what we hear (authority aside for the nonce), we have no other choice left us than to refuse to enrol ourselves on the side of Dr. Robinski. We say nothing as to the nature of the epidemic in Tylitz; we grant that it was typhus. Our own idea is that bad water and bad alimentation, like any other unhygienic circumstance, may predispose the body to disease by partly or wholly breaking down the resistance which we think every healthy organism offers, more or less, to every disease; and this we hold in the face of idiosyncrasies and such like.

GENERAL CORRESPONDENCE.

SPECIALISM v. GENERALISM.

[To the Editor of the Medical Times and Gazette.]

SIR,—I observe in the issue of the *Medical Times and Gazette* for September 30 a letter from your Scotch correspondent, which would not call for comment were it not that through the medium of your valuable journal his remarks may reach and influence those less able than professional readers to estimate aright their justice. I trust, therefore, you may in fairness deem it right to give an equal currency to another view of a professional question which he treats with a Teutonic bluntness which is intelligible if not convincing, and which it is necessary to meet with a like clearness of utterance. It is the more remarkable that the sentiments he expresses should emanate from Edinburgh, which has hitherto set the metropolis of the South a good example in refusing to fix a great gulf between the general practitioner who endeavours to act as it he belonged to a liberal profession, and the specialist of like conduct. It is evident that the gentlemen who have evoked the wrath of your correspondent have not sufficiently appreciated the fact that the necessities of the age require the profession at large to be officered by an oligarchy, whose principal virtue seems to be such an early appreciation of their own abilities as to cause them to eschew general practice. I refer, of course, to his observations on the contest for the post of Medical Adviser to the Scottish Widows' Fund Insurance Office. Unaware even of the name of any of the candidates, and not being one myself, it will be patent that my remarks are not prompted by any self-interested motive. Your correspondent—wisely, I think—suggests that choice should be made of a physician. But what is a physician? Does he understand by that term one who is a consultant in the domain of "pure" medicine, so called, and who neither acts as a family practitioner, nor offers an opinion on subjects outside the arbitrary division of his profession which he affects? If so, how many such are there in Edinburgh—nay, in London? Does he consider it a hardship that such appointments do not fall to the few distinguished physicians at the head of the profession in Edinburgh? Without the acknowledgment of a pronounced insatiableness, it can scarcely be a trial for a successful man who has reaped the honours and emoluments of a "high station" to forego such a prize; while the necessitous and elderly specialist—unknown, I think, in Scotland—probably in many cases pays the penalty of having consulted his ambition rather than his duty at some critical epoch in his career, and is worthy of a commensurate degree of encouragement and sympathy. From the general purport of his remarks, however, concerning the paucity of good workers, notwithstanding the large amount of graduated material, I opine your correspondent has special reference to *young* physicians who hope to become *great* physicians by being enabled to wait, through the income arising from such appointments. One of your editorial articles in the same issue sufficiently indicates the opportunities the "young physician or surgeon, starting as a consultant," has of giving a sound opinion in cases which he cannot conveniently place under the microscope. Young consultants (the antithesis is as perfect as it is ludicrous) violate a fundamental law of growth, when they particularise in the absence of the general, and stunt their intellects in all time just in proportion to the prematurity of their "special" efforts. I trust, therefore, that, in the interests of sound professional development, patrons of such coveted posts as that in question will rather select a general practitioner in the absence of a soundly developed and gradually grown "physician," than offer a premium on vanity by electing some youthful aspirant to special honours, and may help to permanent injury to some one sceptical of that great truth—the development of the particular from the general, the consultant from the general practitioner. I in lose my card, and am,

Yours, &c.,

A "SCOTTISH WIDOWS'" POLICY-HOLDER.

OBITUARY.

ROBERT WISHART LYELL, M.D. LOND., F.R.C.S. ENG. It is with very great regret that we record the death of this able and very promising young surgeon, at the early age of thirty-three. He died, after an illness of only eight days, of acute pneumonia, on the morning of October 2, the very day on which he was to have given the introductory address at Middlesex Hospital. Dr. Lyell was educated at the St. Olave's Grammar School, Southwark, in the "annual distinction" lists of which school his name was always prominent for some years, till, in 1864, he was at the head of the school. He more particularly distinguished himself in classics and divinity, and this secured for him, in 1866 (when he left the school), a scholarship in the Medical Department of King's College. At his medical school he was as distinguished for industry and ability as he had been at St. Olave's, and carried off a Warneford Scholarship and many other prizes. In due time he graduated at the London University, gaining honours in several subjects—M.B. in 1871, M.D. in 1872. In 1871 he became a Member of the Royal College of Surgeons, and a Fellow in 1875. He held many valuable junior appointments, including the House-Surgeoncy at the Manchester Royal Infirmary, the House-Physicianey to the Seamen's Hospital, and the Surgical Registrarship at the Middlesex. In 1878 he obtained an Assistant-Surgeoncy at the last-named Hospital. He was appointed Ophthalmic Surgeon to the Great Northern Hospital, and later, Assistant-Surgeon to the Moorfields Eye Hospital. Thus it will be seen that while he devoted himself to surgery in its wider sense, he yet worked specially at ophthalmology, in which subject he had already distinguished himself both as a teacher and a practitioner. Dr. Lyell was of a very retiring disposition; and he was a hard worker, never leaving a subject until it was mastered: he was therefore always occupied, always busy. He was doubtless suffering from overwork at the time his illness overtook him, and it found him deficient in the reserve force which is necessary to withstand it. When last seen by the writer of this notice—the day before his illness commenced,—Dr. Lyell was hard at work on the chemistry of bacteria; it would seem most probable that the germ-theory of disease, in some one or other of its latest developments, would have formed the subject of his introductory lecture, had he lived to deliver it. His loss will be severely deplored by his colleagues as well as be much felt by the students who profited by his teachings. To all alike his memory will serve to teach lessons of perseverance, unostentatious devotion to duty, and goodwill towards all.

THE TEMPERATURE IN THE EARLY STAGE OF PHTHISIS.—The treatment of phthisis is really efficacious only at its early stage, and it is then that the lesions do not furnish very evident physical signs, and consist chiefly in delicate modifications of the *timbre* of respiration, perceptible only to the practised ear. Prof. Peter is of opinion that at this early period great aid is obtained in diagnosis by examining the local temperature of the thorax opposite the apex of the lung. The local temperature in early phthisis increases by nearly a degree; while in chlorosis, which is often confounded with phthisis, the temperature in this locality is below the mean. In the case of a young girl, upon which he recently lectured, there were present irregular menstruation, pallor, dyspepsia, palpitations, vertigo, etc.; and on a minute auscultation being made, there was also observed towards the apex of the lung some prolongation of expiration, and some of the roughness (*rudesse*) of inspiration, upon which Dr. Grancher lays great stress. The axillary temperature was 37·3° Cent., while that taken in the second intercostal space, where the prolongation of the expiratory sound was heard, was 36·8°, exceeding the normal of this locality, which is 35·8°, by a degree. In another girl presenting quite similar symptoms, but in whom the respiration was quite normal, the axillary temperature was 37·7°, while that of the thorax was below the normal, viz., 35·6°. In a third girl, with similar symptoms, the axillary temperature was 37·4°, and that of the thorax only 35·4°. To be conclusive, these cases would require further observation; but the coincidence of the indications furnished by auscultation and the thermometrical exploration seem to be of sufficient interest to be noted.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 28:—

Brinton, Roland Danvers, College-terrace, Belsize-park.
MacDonogh, William Frederick, Clapham-park-road, S.W.
Plimmer, Henry George, Anerley-road, Upper Norwood.
Rigby, Percy Alfred, Westroby-terrace, Earl's Court.
Smith, William Herbert, Weston, Bath.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Ogle, Arthur, Middlesex Hospital.
Bassett-Smith, W. P., Middlesex Hospital.
Sparkes, Claude S., King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

R. J. COLLYNS, M.R.C.S., L.R.C.P.—House-Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C., *vice* Mr. Duncan Burgess, M.A., M.B., whose appointment has expired.

DOUTT, J. HARRINGTON, M.R.C.S. Eng., L.S.A.—Second Assistant Medical Officer to the County and City of Worcester Pauper Lunatic Asylum.

BIRTHS.

BROWNRIGG.—On September 25, at Hill House, Gravesend, the wife of J. Annesley Brownrigg, M.A., M.D., of a son.

DOUGLAS.—On September 26, at Avenue House, Leamington, the wife of W. Douglas, M.D., of a son.

HAY.—On September 10, at Aden, the wife of Surgeon-Major G. W. R. Hay, I.M.D., of a daughter.

HUNT.—On October 3, at 101, Queen's-road, Dalston, the wife of Joseph W. Hunt, M.D., B.S. Lond., of a daughter.

STOCKER.—On September 28, at Peckham House, Peckham, the wife of Alonzo H. Stocker, M.D., of twins (sons).

TURNER.—On September 26, at Harcourt, Bournemouth, the wife of John A. Turner, M.B., C.M., of a daughter.

MARRIAGES.

CLARKE—DOWN.—On September 19, at Kennington, Robert Launcelot, elder son of the late J. R. Clarke, Esq., of Countess Wear, Exeter, to Laura Sophia, youngest daughter of George Down, M.D., of Eardley-crescent, South Kensington, etc.

FINCHAM—O'NEILL.—On August 22, at Hong-kong, Herbert George Fincham, Deputy Assistant-Commissary-General of Ordnance, eldest son of G. T. Fincham, M.D., of Belgrave-road, London, to Theresa, second daughter of Captain H. O'Neill, ss. *Killarney*.

FOULDS—NICHOLLS.—On September 28, at Lee, Kent, Henry John Foulds, M.R.C.S., of Derby, to Marianne, fifth daughter of the late John Nicholls, Esq., of Champion Hill, Surrey.

HEARN—JOUBERT.—On October 3, at Weybridge, Alfred Williams Hearn, M.D., of New York, to J. F. Ellen Joubert de la Ferté, only daughter of F. Joubert, Esq.

HUTTON—GILFORD.—On October 3, at Micklegate, York, E. R. Hutton, L.R.C.P., of Totteuham, Middlesex, to Rose, eldest daughter of W. Gilford, Esq., late of North Luffenham, Rutland.

LYELL, ROBERT WISHART, M.D., F.R.C.S., of 26, Harley-street, Cavendish-square, W., on October 2.

MARTIN—BAYNES.—On September 21, at St. Oswald's, Knuzden, John M. H. Martin, M.D., of Arnheim, Blackburn, to Thomasine Edith, younger daughter of the late John Baynes, J.P., D.L., of Blackburn.

POWELL—FENTON.—On September 21, at Wilton-place, Charles Edward Powell, third son of the late Henry Powell, M.D., to Constance Ada, youngest daughter of Charles D. Fenton, M.D.

WALKER—CLARKE.—On September 4, at Wentworth, Yorkshire, George Blake, eldest son of Horace Walker, Esq., of Wales, near Sheffield, to Annie McCluire Andrews, eldest daughter of W. Clarke, M.D.

WILLIAMSON-BRUCE.—On September 28, at Bridge of Allan, Stirlingshire, James M. Williamson, M.D., of Ventnor, Isle of Wight, to Jane Eliza, daughter of the Rev. William Bruce, D.D., of Edinburgh.

WOOD—GOULSTON.—On September 27, at Newington, Arthur George Wood, M.R.C.S., L.R.C.P., and L.M., to Ada Jane, younger daughter of Edmund Goulston, Esq., of 37, Trinity-square, S.E.

DEATHS.

KNAPP, GEORGE FREDERICK AUGUSTUS, M.R.C.S., at 10, Bridge-street, Worcester, on July 31, aged 54.

DAVIS, JANE, wife of John Hall Davis, M.D., of 41, Boundary-road, N.W., at Bournemouth, on September 21.

CLOVER, JOSEPH T., F.R.C.S., at 3, Cavendish-place, Cavendish-square, London, on September 27.

DAVIES, W. ST. G., M.D., Retired Staff Surgeon R.N., at 72, Hova-villas, Cliftonville, Brighton, on September 30, aged 96.

PHILLIPPO, EMMA, wife of J. C. Phillippo, M.D., at Kingston, Jamaica, on September 1, aged 44.

WEST, EDWARD LAWRENCE, M.R.C.P., M.R.C.S., at Yeolmbridge, on September 29, aged 58.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL EYE HOSPITAL, LOWER MAUDLIN-STREET, BRISTOL.—Honorary Surgeon. Candidates must be duly qualified, and practically acquainted with diseases of the eye. Applications, with testimonials, to be addressed to the Secretary at the Hospital, on or before October 7.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary £130 per annum, with residence in the Infirmary free. Candidates must be duly qualified. Applications, stating age, previous experience, and accompanied by testimonials, must be sent in to the Honorary Secretary, Mr. J. C. Grimbling, Burton-on-Trent, on or before October 16.

OWENS COLLEGE, MANCHESTER.—Junior Demonstrator of Anatomy. Salary £125 per annum. Particulars as to the duties of the office may be obtained from Professor Watson, Owens College. Applications and testimonials addressed to the Senate, under cover to the Registrar, will be received up to October 9.

WESTERN GENERAL DISPENSARY, MARYLEBONE-ROAD, N.W.—Resident House-Surgeon. Salary £100 per annum, with furnished apartments, fuel, light, and attendance. Candidates must be Members of the Royal College of Surgeons of London, Edinburgh, or Dublin; or graduates in Surgery and Medicine of a British university; or Members or Licentiates of the Royal College of Physicians of London, Edinburgh, or of the King's or Queen's College of Physicians of Ireland; and duly registered. They must be married men. Applications and testimonials, etc., to be sent to the Secretary, on or before October 2, at 8 p.m., when the Medical Committee will meet to see candidates presenting themselves for the vacancy. The election will take place on October 9.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Chorlton Union.—Mr. Charles Holmes has resigned the Second District: area 183; population 31,214; salary £100 per annum.

Croydon Union.—Mr. C. J. Hardy Smith has resigned the Ninth District: area 1438; population 12,210; salary £90 per annum.

Kendal Union.—Dr. O. N. Royle has resigned the Milnthorpe District: area 25,283; population 4866; salary £45 per annum. Also the Workhouse: salary £40 per annum.

Lichfield Union.—Mr. David Edgar Flinn has resigned the Ogley Hay District: salary £50 per annum.

APPOINTMENTS.

Fareham Union.—William F. Brook, M.R.C.S. Eng., L.S.A., to the Fareham District and the Workhouse.

Hackney Union.—John J. Gordon, L.R.C.P. Edin., L.R.C.S. Edin., as Assistant Medical Officer at the Workhouse and Infirmary.

Hexham Union.—Charles J. Connon, B.M. and M.C. Aber., to the Tenth District.

Salford Union.—John T. C. Conry, L.K.&Q.C.P. Ire., L.F.P.&S. Glasg., as Medical Superintendent of the New Infirmary.

EXTIRPATION OF THE LARYNX.—Dr. Blum, in the *Archives Générales* for July, has collected, in a convenient brief *resumé*, all the cases reported up to date. They number 38. Among them we find but 1 case operated upon in America, and only 6 in England. Over 20 have been done by German surgeons. What are the results? Out of the 38 cases, 13 died within a week, and at a later period 12 more, either from the operation or from an early return of the disease. Only 6 were alive at the time of the report—4 cases of epithelioma, and 2 each of sarcoma and carcinoma. But in one of these cases the disease had already returned, and all the others were reported with so brief an interval as to make the ultimate results very equivocal. Bottini's case had lived without recurrence six years, Caselli's for nearly two years; none of the others for more than a year, and generally much less. In view of these facts we may well question whether American surgeons have not done well in refusing thus far to do the operation, and in deterring others from doing it, as the sole American case certainly has. If but two or three out of thirty-eight survive for two or three years, and all the rest die, and, as a rule, much more speedily than they would have if let alone, is there, on the whole, a gain of life or even of comfort? Are not the suffering after the operation, the mutilation, the loss of voice, the annoyance of the artificial larynx, of the œsophageal tube, and, later, of the trouble in swallowing, with the risk of life, and the almost absolute certainty of return, with its dreadful discomforts, all taken together, well-nigh prohibitory?—*Phil. Med. News*, August 19.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 30, 1882.

BIRTHS.

Births of Boys, 1309; Girls, 1229; Total, 2538.
Corrected weekly average in the 10 years 1872-81, 2559·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	745	704	1449
Weekly average of the ten years 1872-81, corrected to increased population ...	710·4	663·8	1374·2
Deaths of people aged 80 and upwards ...	...	...	55

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	4	5	2	4	...	2	...	6
North ...	905947	2	8	12	5	9	...	6	1	17
Central ...	282238	...	4	4	3	2	...	2	...	3
East	692738	...	2	20	5	5	...	4	...	4
South	1265927	5	4	20	13	11	1	6	...	4
Total	3816483	7	22	61	28	31	1	20	1	34

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29·492 in
Mean temperature ...	53·8°
Highest point of thermometer ...	67·9°
Lowest point of thermometer ...	43·5°
Mean dew-point temperatura ...	49·2°
General direction of wind ...	Variable.
Whole amount of rain in the week ...	0·91 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Sept. 30, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Sept. 30.	Deaths Registered during the week ending Sept. 30.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.): Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.): Weekly Mean of Daily Mean Values.	Rain Fall: In Inches.	In Centimetres.
London	3893272	2538	1449	19·4	67·9	43·5	53·8	12·12	0·91	2·31
Brighton	109595	77	44	21·0	64·6	43·3	51·2	12·33	0·77	1·96
Portsmouth ...	129916	79	45	18·1	...	...	...	...	...	...
Norwich	88821	68	30	17·6	...	...	...	...	...	...
Plymouth	74449	40	32	22·4	62·5	45·0	52·8	11·56	2·58	6·55
Bristol	210134	108	58	14·4	62·2	42·2	51·7	10·95	0·90	2·29
Wolverhampton .	76756	41	36	24·5	63·1	40·0	50·9	10·50	0·95	2·41
Birmingham ...	408532	266	145	18·5	...	...	...	...	...	...
Leicester	126275	95	50	20·7	...	...	...	...	...	...
Nottingham ...	193573	132	55	14·8	66·4	38·5	53·1	11·73	0·64	1·63
Derby	83587	66	22	13·7	...	...	...	...	...	...
Birkenhead ...	86582	58	38	22·9	...	...	...	...	...	...
Liverpool	560377	415	268	25·0	62·5	46·0	52·5	11·39	1·18	3·00
Bolton	106767	79	43	21·0	61·5	40·1	50·6	10·34	1·31	3·33
Manchester ...	340211	238	176	27·0	...	...	...	...	...	...
Salford	184004	137	92	26·1	...	...	...	...	...	...
Oldham	115572	85	56	25·3	...	...	...	...	...	...
Blackburn	106460	76	43	21·1	...	...	...	...	...	...
Preston	97656	70	61	32·6	...	...	...	...	...	...
Huddersfield ...	83418	43	35	21·9	...	...	...	...	...	...
Halifax	74713	56	30	20·9	...	...	...	...	...	...
Bradford	200158	117	80	20·9	62·5	43·6	52·8	11·56	1·11	2·82
Leeds	315998	218	123	20·3	64·0	44·0	53·3	11·84	0·88	2·24
Sheffield	290516	204	98	17·6	65·0	41·0	52·2	11·22	0·94	2·39
Hull	158814	125	64	21·0	68·0	35·0	52·0	11·11	0·98	0·97
Sunderland ...	119065	90	70	30·7	71·0	42·0	54·6	12·56	0·72	1·83
Newcastle	147626	126	70	21·7	...	...	...	...	...	...
Cardiff	86724	70	31	18·7	...	...	...	...	...	...
For 28 towns ..	8469571	5717	3344	20·6	71·0	35·0	52·7	11·50	1·02	2·59
Edinburgh	232440	116	80	18·0	61·8	35·5	52·5	11·39	0·30	0·76
Glasgow	514048	364	241	24·5	...	...	...	...	...	...
Dublin..	318293	208	158	23·7	62·8	23·2	49·4	9·66	1·85	4·70

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·49 in. The highest reading was 29·87 in. on Sunday morning, and the lowest 29·06 in. on Wednesday morning.

NOTES, QUERIES, AND REPLIES.

𝔋𝔢 𝔱𝔥𝔞𝔱 𝔮𝔲𝔢𝔰𝔱𝔦𝔬𝔫𝔢𝔱𝔥 𝔪𝔲𝔠𝔥 𝔰𝔥𝔞𝔩𝔩 𝔩𝔢𝔞𝔯𝔫 𝔪𝔲𝔠𝔥.—*Bacon.*

C. Kershaw S.—The Parliamentary grant on account of pauper lunatics in Scotland was first given in 1874-75. The grant in that year was £59,483, but it has been increased rapidly since.

The Night Medical Service, Paris.—In consequence of the success during the three years the institution of Refuges, where medical assistance may be obtained at all hours of the night, has been in operation, the Municipal Council propose to extend their public utility. Boxes of surgical appliances and medicines will be placed in all the police-stations, which will contain useful drugs as well as belts and bandages. Doctors on the register of the Medical Service will have access to these boxes at all times. The fees now paid to these practitioners are to be increased. An extra credit will be asked for this purpose.

An Eye to Business.—At a public meeting of the inhabitants of Kilmalcolm, the proposal to acquire the Hydropathic Establishment for the purpose of converting it into a convalescent home, or home for incurables, was strongly opposed on the ground that such an institution would not promote the prosperity and welfare of the village. It is proposed to form a new limited company to purchase the buildings and carry on the hydropathic business.

Cabby.—The Mayor of Liverpool has purchased a large quantity of books, which he intends to send round for use at the various cabmen's shelters in the city. The volumes are of an instructive and entertaining character.

Statistics of the Morgue.—In the year 1830 there were received 400 corpses. The average, by decennial periods, from 1830 to 1839 was 325; from 1840 to 1849, 675; from 1850 to 1859, 425; from 1860 to 1869 it rose to 650; and from 1870 to 1879 it was 675.

Drugged by Narcotics: a Fatality.—The following case illustrates how children are drugged with narcotics. The mother, in her evidence at the inquest on the body of her child, aged thirteen months, stated that "in order to make it sleep," she had given it nightly a teaspoonful of a mixture composed of a pennyworth of laudanum, a pennyworth of essence of aniseed, a quarter of a pound of sugar, and a gill of water. A dose of this was given one night, and again early in the following morning. The child became unconscious, and medical aid was called in, when it was found the child was suffering from the effects of a strong narcotic poison, and past hope of recovery. A teaspoonful of the mixture would, the medical attendant said, contain about two drops of laudanum. A verdict of "Accidental death from an overdose of narcotic poison" was simply accompanied by an expression of opinion that the mother ought not to have given the child so strong a narcotic.

Death-rate in the Metropolis.—Over the whole metropolitan area for the month ending the 16th ult. the death-rate was only 17·7 per thousand, and in the City proper the average for the previous eight weeks had been the remarkably low average of 13·43.

The Sunflower.—A writer in the *Live-Stock Journal* says that sunflower oil is greatly used for adulterating salad oil. Its leaves are much used for adulterating tobacco. Its oil is unsurpassed as a lubricant, and soap made from it is unequalled for softening the skin.

Cardinal Manning and Doctors.—Addressing a meeting of the Catholic Total Abstinence League at Warrington, Cardinal Manning is reported to have said a great public opinion had been created, and the doctors had at last been converted. They died hard. They were the most dangerous opponents of the total abstinence movement—far worse than the publicans—because nobody believed the publicans, and everybody believed the doctors. The Cardinal's want of "charity" is only excusable on the ground of ignorance.

Fitz.—In reference to the recommendation of the Local Government Board, the report from the Infirmary Committee of the City of London Union is to the effect that, in their opinion, the Infirmary staff cannot be so arranged as to limit the number of day nurses to seven, and, in consequence, the guardians have decided to again apply to the central authority, urging their approval of the increase proposed by the guardians for the day nurses.

Our Bakehouses.—The Inspector of Factories has summoned a baker at Kentish Town for neglecting to keep his bakehouse in a cleanly state. The bakehouse was ill-ventilated, in a very filthy condition, and an open well filled with foul water communicated directly with the sewer. A fine of 20s. was inflicted.

Query, if Fit for Human Food.—It is reported from Grenelle that two doctors have conducted a series of alcohol experiments with pigs. Fifteen were treated. When killed, the vital organs were found to be marked with small white spots resembling ulcers. Their flesh was sound, but when sent to market it was seized as unfit for food. This is a point which the experimenters are disputing with the police.

Bequests.—Under the will of the late Mr. W. H. Le Bas, the City of London Hospital for Diseases of the Chest, Victoria-park, and the Hospital for Consumption, Fulham-road, each benefit to the amount of £100.

A Baby Show Prohibited.—The New York Society for the Prevention of Cruelty to Children has interfered to soppress a baby show at the Broadway Museum, as involving cruelty forbidden by statute. A large number of entries had been made, and much dissatisfaction was expressed when it was known the show was not to take place.

Sanitary Vigilance.—The Bootle Health Committee have requested their medical officer to report on all cellar dwellings in the borough, and, if any were unfit for habitation, to certify accordingly.

Jerry-Builders.—The evidence adduced in the case of a speculative builder before the Highgate magistrates deserves attention. Some time ago the Finchley Local Board of Health obtained a conviction against a builder for not complying with the by-laws of the Board in respect to ten houses he had erected at Finchley, and a fine of £36 was in inflicted. But it appears the delinquent has disappeared without paying the money, and it has just been found that a firm of architects, who had been "financing" the undertaking, are the owners, and further fines were accordingly imposed. Moreover, it was stated that some suburban district surveyors depute other people to discharge their duties, and that the latter accept "commissions from the jerry-builders."

A Royal Present.—Their Royal Highnesses the Princesses Louise, Victoria, and Maud presented a very handsome scrap-book to the little patients in the Royal Hospital for Women and Children, Waterloo-bridge-road, on the occasion of their visit on the 15th ult.

Tree Planting in the Metropolis.—The Board of Works has decided that trees should be planted and seats should be provided in all districts within its scope.

Sewage Flowing into the Thames.—The Brentford Local Board are about to construct extensive sewerage works and a river wall by the Thames near the town at a cost of £25,000. These works the town has been compelled to construct in consequence of the order issued some time ago by the Thames Conservancy Board, forbidding local sanitary authorities to allow sewage to flow into the Thames.

Infectious Hospital.—The fever hospital to be erected by the Maidstone Local Board is to have accommodation for twenty-four beds. The Board last week accepted a tender of £3830 for the erection.

Startling American Items.—It is reported that, according to the prohibitionists, alcohol, in the last ten years in the United States, has sent 100,000 orphans to asylums, caused 10,000 suicides, and made 200,000 widows. Some idea may be gained of the number of inquests in New York from the fact that, three weeks since, one hundred were held in a single day. Two coroners and two juries disposed of the whole.

Workhouse Economy.—The whole of the alcoholic drinks now consumed in the Liverpool Workhouse is given under the orders of the medical men, and the governors' return shows that during the past year the amount expended was considerably less than it had been during the previous five years, although the number of inmates was greater. In 1881, 3017 inmates, £690 7s. 2d.; 1880, 2797 inmates, £756 18s. 9d.; 1879, 2575 inmates, £852 0s. 10d.; 1878, 2586 inmates, £928 9s. 6d.; 1877, 2413 inmates, £833 6s. 10d.

Want of Lady-Doctors: India.—A lady, in the course of her evidence before the Education Commission, which has lately concluded its public session at Poona, stated that hundreds of thousands of her fellow-women are dying for want of lady-doctors. "I consider it my duty," she added, "to maintain this cause, and to advocate the proper position of women in this land."

Shell-Fish for Food.—The question of the value of shell-fish as food is not destitute of importance, from their large daily consumption. The oyster contains as large a percentage of nitrogenous or flesh-forming matter as an egg, each having about 14 per cent., while the mussel follows close upon the oyster in this respect. Even compared with lean beef, the comparison is by no means very unfavourable, the latter having only 5 per cent. more of nitrogenous matter, and 2 per cent. more of fat than the oyster. Different opinions have prevailed as to their digestibility, but, with the proviso that there are certain stomachs which altogether reject them, they do not appear to offer more than the average opposition to the action of the digestive organs. In this matter, however, much depends, as in most other foods, on the manner of cooking. However digestible and nutritious shell-fish may be, as a rule, it is an undoubted fact that their use is occasionally followed by deleterious effects. Among the many thousands of species of shell-fish there are only two or three known or believed to be poisonous; of the edible remainder, comparatively few kinds, however, are eaten. Of the shell-fish of commerce, the oyster is more important than all the others put together. Mussels, although largely used as food, are still more important as bait. Cockles, so far as we know, are the only other marine shell-fish cultivated by man. Large numbers are sold as food in towns near coasts where they are found, but they do not appear to bear conveyance to distant markets. In this respect they differ from the periwinkle, which can be carried from one end of the kingdom to the other without danger of spoiling. The trade in these molluscs is very large; it is stated that the supply of periwinkles brought to London averages about 2000 bushels per week from March to August, and about 00 bushels weekly for the remaining months.

COMMUNICATIONS have been received from—

Messrs. Hildesheimer and Faulkner, London; The Registrar of the Apothecaries' Hall, London; Deputy Surgeon-General Bellew, Lahore; The President of the Pharmaceutical Society, London; Mr. C. Waiab, London; Dr. Herbert Watney, London; Mr. Marcus Beck, London; Dr. King Chambers, London; Mr. E. Nettleship, London; The Secretary of the Hunterian Society, London; Mr. J. Chatto, London; Messrs. Crosby, Lockwood, and Co., London; The Chairman of the Native Guano Company, Aylesbury; The Registrar-General for Scotland, Edinburgh; Dr. Rickards, Birmingham; Dr. Sidney Coupland, London; Dr. Alexander Morison, London; Dr. James Anderson, London; Mr. F. Boddebent, Liverpool; Dr. Barce, London; The Honorary Secretaries of the Clinical Society of London; Messrs. W. and A. Gilbey, London.

BOOKS, ETC., RECEIVED—

Contributions from the Chemical Laboratory of the University of Michigan—Wolf's Medicinisches Vademecum—Cruelty to Animals, by Lieut.-Col. John R. Campbell—Wolf's Balneologisches Vademecum.—Ten Years' Experience in the Treatment of Stricture of the Urethra by Electrolysis, by Robert Newman, M.D.—The Malignity of Syphilis, by L. Duncan Bulkley, A.M., M.D.—Comparative Therapeutics, by Samuel O. L. Potter, A.M., M.D.—Published Writings, by Alexander Ogston, M.D.—Verhandtingen des Congresses fur Innere Medicin—The Royal Navy List, October, 1882—Address in Surgery, by William Stokes, Ch.M. Univ. Dub., F.R.C.S.I.—The Surgical Treatment of Hæmorrhoids, by W. Whitehead, F.R.C.S., F.R.S.—Diseases of the Uterus, by A. Courty.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Veterinarian—Archives Générales de Médecine—Scienze Mediche—Ceylon Observer, March 18—Students' Journal and Hospital Gazette—Liverpool Daily Post, October 2—Zeitschrift für Diagnostik und Therapie—Monthly Homœopathic Review—Indian Medical Gazette—Weekblad, Nr. 36, 37, and 38—Maryland Medical Journal—Medical News—Daily Courier, Liverpool, September 26—Medical Register—Newcastle Daily Chronicle, October 2 and 3—L'Impartialité Médicale—Ciencias Medicas—Birmingham Medical Review—Glasgow Medical Journal—Revue d'Hygiène—Edinburgh Medical Journal—Practitioner.

APPOINTMENTS FOR THE WEEK.

October 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

9. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

10. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

11. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

Hunterian Society, Royal Institution (Council Meeting, 7½), 8 p.m. Address by the President (Dr. J. Hughlings-Jackson). Mr Rivington, "On the Symptoms, Diagnosis, and Treatment of Rupture of the Urinary Bladder." Mr. Jennings—Transfusion Apparatus.

12. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

Ophthalmological Society, 8½ p.m. Dr. Stephen Mackenzie, "On a Case of Chronic Tubercle of the Choroid and Brain." Dr. Brailey, "On a Case of Large Tubercle growing from near the Optic Disc." Dr. Warner, "On a Case of Miliary Tubercle of the Choroid and Lung without Meningitis." Mr. Nettleship, "On certain Cases of Destructive Ophthalmitis in Children." Living Specimens at 8 p.m.

13. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

Clinical Society of London, 8½ p.m. Dr. C. T. Williams, "On a Case of Phthisis treated by Residence at High Altitudes." Mr. Golding Bird, "On a Case of Excision of the Tonsil for Epithelioma." Mr. Clement Lucas, "On a Case of Excision of Base of Tongue, Tonsil, and Soft Palate for Epithelioma." Mr. Walsham, "On a Case of Gunshot Injury of the Lower Jaw."

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ON ABDOMINAL SIGNS.

When we proceed to examine a case you will observe that we first of all have the clinical clerk's report of the general medical history of the patient; then of the special details of the present illness, including symptoms; then I look for, and dictate a statement of, the physical conditions or signs; and, finally, the history, and symptoms, and signs, are reconsidered in their common bearings with a view to diagnosis. All this being done, treatment is ordained.

The history is derived from the patient, and cannot be relied upon; for, while it rarely contains false statements, it frequently contains errors. Almost every patient has a theory of her case, and she distorts historical details, and even symptoms, to suit her views. In helping to make your diagnosis, history has a limited place, and subsequently-discovered errors in history form no excuse of error in a diagnosis which has been given without reserve or with a high degree of assurance.

For diagnosis, signs are sought with eagerness, and their absence is deeply felt, because without them all is insecure. So paramount is the importance of signs, that the physician entrusts the search for them and their description to no one; but does all himself.

You should lose no opportunity of making physical examinations, educating your senses, and especially your hands, by constant repetition, to produce that eruditeness which we admire so much in artisans of many sorts. You have to look, to touch, to manipulate or press, to percuss, to measure, to listen, and even more than all that.

Begin by examining the abdomen, exposing it to observe its pigmentation, striæ or cracks, wrinkles, baggedness, scars, eruptions. Then you feel it carefully all over, and, if you find anything abnormal, you note the presence or absence of the numerous qualities or conditions which I shall presently describe in categories. Keep in mind the arrangement of the cavity into regions—epigastric, right and left hypochondriac, three lying above a latitudinal line joining the lowest fixed rib of either side; umbilical, and right and left lumbar, lying below the preceding three, and bounded below by a horizontal or latitudinal line which joins the iliac crests; hypogastric, and right and left iliac, beneath the three preceding. In mapping, besides the horizontal or transverse lines, you use two which are vertical or longitudinal, and run from the middle of Poupart's ligament. Erroneous notions of the antero-posterior dimensions of this cavity, as a woman lies on her back for examination, are prevalent, being carried into the mind by the familiar anatomical drawings in books, which represent the anterior abdominal wall as far removed from the lumbar spine. Now, in a healthy woman this wall almost touches the spine; the aortic pulsations being, at the navel, frequently visible, and easily felt by the finger slightly depressing the wall.

Examining the abdomen of a healthy woman not overloaded with fat, you recognise localities by the floating ribs, the lower margins of the fixed ribs, the xiphoid cartilage, the iliac crests and spines, the pubic bones, the lumbar vertebræ, and the often accessible sacral promontory, the navel lying on the next lowest lumbar vertebra, and the aortic bifurcation about an inch lower down, and nearly an inch above the sacral promontory. You may make out the position and dimensions of the spleen by percussion; and the lower margin of the liver may be felt or made out by percussion. Occasionally, in a thin, relaxed, healthy woman, with yielding abdominal parietes, you may, with some definiteness, feel the kidneys; and occasionally the fundus uteri can be made out. Some authors of eminence say the ovaries can also be felt, and do not add the qualification of "rarely"; but, for my part, I say that I have never distinctly felt them in the healthy or in the pregnant woman, and I regard the directions given for finding them in the unimpregnated woman as misleading. I shall afterwards point out to you how they may be felt and actually examined.

If, in any part of the abdomen, you find enlargement, or hardness, or tension, you specially investigate its conditions: and the conditions which you have to consider are numerous, for the possible diseases are numerous and various; and for the diagnosis it is necessary to make out the physical conditions and characters not only of the whole swelling, but also of its parts.

Sensitiveness, tenderness, pain, are conditions made out on this examination, and are mentioned here, though they are not physical, and do not come under a strict definition of signs; and one of them, pain, is a symptom—the great symptom, indeed.

The region or regions occupied, the size, including the prominence, and the shape, of the swelling, are ascertained.

It may be dull on percussion, resonant, or tympanitic, and these conditions may be present or absent in different parts and at different times.

It may be more or less elastic, or have the feeling of fluid—that is, of having fluid contents; or it may present fluctuation, a sign quite distinct from that of a feeling of fluid.

It may be mobile or floating, or it may be merely displaceable, or it may be fixed.

It may present no definite characters, and is then called a fulness; or it may be hard in greater or less degree; or it may be a tumour—that is, a defined mass having three dimensions.

It may be growing at various rates, or it may be stationary, or decreasing.

There may be felt in it, or over it, friction, or pulsation, or movement.

If it has irregularity of surface, and no adhesions anteriorly of a tumour, then movement of it may be seen in inspiration and expiration, or on displacement by the hand. The bowels may also be seen to move or to travel in like manner.

The ear may find it dumb, or may find a souffle or a pulse, or friction, or gurgling, or movement of a fœtal limb.

All these points have in most cases, and in every case of difficulty, to be investigated and considered, and others which I shall mention when treating special departments of my subject.

The lower part of the abdomen is investigated in a different and additional manner—namely, bimanually,—and of this I shall speak again.

Professor Hasner, the Prague Oculist.—Dr. Park, writing in the *Chicago Medical Journal*, observes—"His name is familiar only to the students of ophthalmological literature at home, and yet I suppose that he is the most expert and rapid operator, perhaps, of the present century. May 16 is the day allotted in the calendar to St. John Nepomuck, the patron saint of Bohemia. On this day, the halt, the maimed, and the blind come in from all the surrounding country for treatment. Among this motley crowd are a great many cataract cases; and on one of these occasions, having all his patients made ready, Hasner is known to have operated on *twenty-three eyes in one hour*. I have seen him operate several times, and can testify to the wonderful rapidity and certainty of his movements. I saw him one day remove two cataracts from different patients in different rooms and also operate on both sides for strabismus *within six minutes*. Of course no anæsthetic was used, and all the dressing was left to the assistants. Hasner has his own method of extracting cataract. He uses a Beer's knife, makes an incision closely corresponding to the Graefe cut, and then, instead of an iridectomy, he performs an iridotomy. Most of his results are wonderfully good. Surely the method is deserving a trial on your side of the ocean." Dr. Park strongly recommends Prague as a place of medical study, instruction being cheap there, while the student is much better treated in every way than at Vienna, and has a field for study which compares most favourably with Berlin and Vienna, and perhaps ranks next to them.—*New York Med. Record*, September 23.

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE

MIDDLESEX HOSPITAL MEDICAL SCHOOL.

By WILLIAM CAYLEY, M.D., F.R.C.P. Lond.,
Physician to the Hospital, and Lecturer on Medicine in the School.

GENTLEMEN,—I appear before you to-day merely in the position of a stop-gap, for you will now all have been informed of the great calamity which has befallen us. He who was to have addressed you, and from whose eloquence we had expected so much instruction and pleasure, has been suddenly struck down by a mortal disease, in the very prime of life, in the opening of his career. This blow is too recent for us yet to be able to estimate the extent of the loss which our Hospital and School have sustained, but when we consider his great abilities, his indefatigable industry (which led him, indeed, far to overtax his bodily powers), and his pure and blameless life, we must indeed feel it to be great.

But, gentlemen, in our profession we are as soldiers on the field of battle. Is one struck down at our side—we have no time for vain lamentations; we can but close up the ranks and continue the advance. And although we cannot but feel oppressed by the gloom which has been spread over our opening proceedings, we must, as best we may, strive to go through the necessary business of the day; and it has been felt that it would not be right to allow the occasion to pass without a few words of advice and encouragement to the students from one of their teachers. For, gentlemen, the occasion which has assembled us here to-day is indeed no light one; we are met together not only to confer the rewards of merit on those students who have distinguished themselves during the past year,—not only to encourage those who are now in their mid-career to persevere steadfastly in the course they have begun,—not only to bid good speed to those who are now about to leave us to enter on the practical duties of life,—but above all to welcome among us a new set of recruits for the armies of medicine, a fresh set of neophytes to be instructed in the science and art of healing.

In times of old such an occasion would have been celebrated by solemn rites, and even at the present day it is ever the custom at this opening of the winter session to direct the minds of the students to the higher aspects of the profession which they have chosen, and to encourage them to penetrate beneath the surface to the idea which underlies the outward form.

Now, medicine admits of being viewed under many aspects. First, we may regard it as a science, in which we investigate the laws which govern the growth, the structure, the functions of the human body, and the various causes which are liable to disturb these; next we may look at it as a practical art, in which we apply the principles derived from our science, and all the means which past experience has placed at our disposal, in the prevention and cure of actual disease; and, lastly, we may consider it as a liberal profession, in which those who enter it hope to pass through an honourable career and to reap the well-earned fruits of skill and knowledge.

Now, of all these aspects of medicine, that which is most liable to misapprehension, especially on the part of the outside world, is the scientific one. As a practical art it at once appeals to the sympathies, as a liberal profession they are willing to accord it their respect; but as a science we frequently see that they are quite unable to appreciate it, and only too often we find its prosecution hindered by obstacles due to ignorance or prejudice.

Nevertheless, it is of the utmost importance, both for the advance of our art and for the good of the student himself, that he should study his profession in a scientific spirit. Men may be induced by many motives to enter a profession like ours. There have been those whose souls have been filled with a fervent love for their fellow-men and an ardent desire to relieve their sufferings, and who, in this spirit, have studied and practised their art, and in so doing have found their highest reward; and though such men must necessarily be rare, the more this spirit can be cultivated by all, the better it will be both for the patient and the practitioner, and the higher will be the position taken by the profession itself. Others, again, are chiefly impelled by a desire for success in life, to obtain position, reputation, wealth; and by such motives we all are influenced. But quite distinct in its nature from these is the scientific motive—that curiosity of mind which leads men to search into the secrets of Nature and to investigate the laws of her phenomena. Now, this scientific quality of mind, if I may so term it, differs greatly in different persons: some have it very strongly, so that they take naturally to scientific pursuits; in others it is weak and feeble, and requires stimulation and education for its development. This quality of mind you should all foster to the utmost of your power, for without it there is always the danger that you should come to regard your profession as mere drudgery. The pleasures of sense get weaker by constant repetition; nay, success in life itself is apt at last to pall. But the scientific interest grows by exercise, and as none are more to be pitied than those to whom their daily avocation is an irksome task, so none are more to be envied than those who find in it an ever-increasing source of interest and pleasure.

But the pursuit of knowledge in the scientific spirit, which aims rather at the investigation of the laws of nature than at any immediate practical advantage—though such cannot fail to flow from their complete elucidation—often meets with but little approval; and medicine has had many a battle to fight to overcome obstacles due to ignorance and prejudice.

Take for example the study of human anatomy. It is only in modern times that this has become possible, and in consequence the medical science of the ancient world was little better than guesswork, and medicine itself may have been said to have stood still during the long interval between the Greek and Roman physicians, and the introduction of the study of anatomy at the end of the fifteenth century.

Now medicine is threatened by a new danger, the arrest of experimental research, and it behoves us to be prepared, if necessary, to meet the arguments of our opponents, and to defend a course which we believe to be so necessary for the welfare of the human race.

The argument against experimental research in medicine is, I believe, in the main this. These researches cannot in all cases be carried on without the infliction of pain on sentient beings, and to inflict pain on sentient beings is wrong, so that even if great advantages can be obtained this would not justify us, for we may not do evil that good may come. I need hardly say that because many good people think a particular course to be wrong this does not make it so: we are always entitled to inquire into the grounds of such belief. We may again take as an instance the study of human anatomy. In the ancient world to dissect a human body was regarded as an outrage which could not fail to call down the vengeance of the gods. In the middle ages it was forbidden by the Church under pain of excommunication; but there is no one now who does not regard it as a perfectly justifiable and necessary proceeding.

Now, I believe this argument against experimental research to be based on a profound misconception of the whole system of nature and of man's place in it. It is evident that these good people regard pain and disease as more or less accidental disturbances of an harmonious system intended for the happiness of the creatures which inhabit it. But if we survey nature with the eye not of sentiment, but of science, what do we see? An internecine struggle for existence carried on throughout the whole domain of organic life. We see on all sides jaws and teeth and fangs and claws and stings and poison-bags, pincers and suckers, and every possible instrument that can be conceived for inflicting pain and death; and where these are absent, none the less deadly is the struggle for the means of subsistence. We see the strong preying on the weak, and the higher on the lower, and only too often the lowest forms of all inflicting widespread devastation on the highest. And think not that we, in the pride of our humanity, are entitled to look on as mere spectators at the conflict which is being waged in the arena at our feet. We are in the very thick of the turmoil, and there have been times when it seemed doubtful whether the human race might not succumb in the struggle.

What, then, as a necessary result, is our behaviour towards the animals by which we are surrounded? If we consider them injurious to us we extirpate them without scruple, and by whatever means we find most efficacious. We kill them for

our food, for our clothing, we make slaves of them, we perform painful mutilations and operations to render them more adapted to our service, we thwart their natural instincts, we separate parents from their offspring, and offspring from their parents, regardless of the pain we thus cause. Nay, we destroy them by thousands merely for our amusement. And we do most of these things because if we did not we should be unable to hold our own in the battle of life; and all this passes unregarded, because what is customary fails to strike the imagination. But should we perform some inoculations for the purpose of investigating the nature and checking the ravages of some contagious disease, should we make some experiment to elucidate some important physiological law, or should we try the effect of some new drug which promises to be of service in the treatment of disease, —then the public conscience is awakened, then a clamour is set up against the cruelties of scientific investigation!

These good people seem quite unable to see that as we are justified in using animals in the manner I have described to supply our daily needs, none the less are we so to ward off the ravages of disease. To inflict unnecessary pain would in either case be a crime, but it is one which I believe is far more often committed in the practice of common life than in the laboratory of the experimenter.

But suppose these well-meaning people could have their way, would the amount of pain and suffering in the universe be diminished? Let us bring this to the test of facts. You are no doubt aware that Harvey in his investigations, which resulted in the discovery of the circulation of the blood, made many experiments on deer, which were supplied to him from the Royal Forest of Windsor by King Charles the First, who took the deepest interest in his researches. And here perhaps I may be permitted to say of that monarch, to whom our profession owes a deep debt of gratitude, that, however ill-advised and unsuccessful he may have been in his management of political affairs, he was in all that concerns art, literature, and science by far the most enlightened sovereign who has ever reigned in England. But so far have we advanced in some of these matters since his time, that if Harvey, instead of living in the reign of Charles the First, had lived now under the present restrictions, he could never have discovered the circulation of the blood.

Let us now consider some of the consequences which have resulted from that discovery. The old methods of arresting hæmorrhage have almost passed out of remembrance. I will venture to recall some of them. In the performance of some surgical operations red-hot knives were often used; after amputations to dip the stump in boiling oil was a practice sometimes resorted to, and this long before other experimenters had discovered the use of chloroform; and where less barbarous methods were employed it was constantly found necessary to apply such severe pressure by bandages that sloughing was sure to follow. But now how easily, how simply, how comparatively painlessly, can the surgeon arrest hæmorrhage! Where then, in this case, is the balance of suffering? On the one side a few deer, which, instead probably of being hunted down by the Royal stag-hounds, fell under the knife of Harvey; on the other, these tortures inflicted generation after generation on human beings.

But to take a more modern instance. There is a well-known disease of cattle—the splenic fever—which is now found to be caused by the presence and multiplication of peculiar bacteria in the system. This, though primarily a disease of cattle, is quite capable of being communicated to man, and is liable to spread in an epidemic form. Of this disease there died in one year in Germany 50,000 head of cattle and 150 human beings. Then the experimenters set to work, and, by a series of inoculations, chiefly on guinea-pigs and rabbits, and by other experiments, a way has been found of so modifying these bacteria that they can be used to protect the system against splenic fever in the same way that we use vaccine to protect against small-pox; and now we have it in our power to stay the plague. Where is the balance of suffering here?

It is indeed evident that if these well-meaning people could have their way, the sufferings of the higher animals would be increased, and in the battle of life the advantage would be given to bacteria and micrococci.

It is manifest that these good people would like, if they could, to alter the whole constitution of the universe. They always remind me of that Spanish king about whom we have all heard, who, when the movements of the heavenly bodies were described to him according to the Ptolemaic system, thought he could have suggested a simpler plan. So these persons would like to have had a world in which there was no pain and no disease. Far different, I need hardly say, is the attitude of science towards this great mystery. We are, indeed, able to see dimly that this struggle for existence, which is so shocking to sentimental minds, has a beneficent operation, and that it is the appointed means by which progress from the lower to the higher is effected; and we see that wherever, from temporary causes, its strain is diminished, there degeneration begins—a degeneration which, according to circumstances, may be physical, intellectual, or moral. But for the final solution of the mystery we must be content to wait "till the hurly-burley's done, till the battle's lost and won," and it must be our determination to win it.

I fear, however, I have been led rather far from the proper business of the day, for I need hardly say that experimental research forms no part of the education of medical students. But I would not have you led at the commencement of your studies by the clamour around us into believing that an experimental science can be advanced otherwise than by experiment, or that those great men of the past, whose names we still hold in honour—men like Harvey, Hunter, Charles Bell, Claude Bernard,—obtained their knowledge, of which we are now reaping the fruits, by unlawful arts, or that those who in the present day are with much ill-rewarded toil struggling along the same path of progress are deserving of being branded as criminals.

But we must now pass to the practical side of medical education, and I propose to consider a few of the dangers and difficulties which experience has shown are liable to beset the path of the student. In the first place it is necessary to impress upon you that your studies will demand the whole of your time and all your energies. Indeed, you will find the time only too short for the many branches of knowledge which you have to acquire; you must therefore make up your minds to set to work at once in a methodical manner, and not, after the manner of some, to say, "We shall have time enough later on, we may take it easy at first." No greater mistake can be committed. In the first place, habits of industry once lost are not so easily regained, and moreover it is necessary that the various subjects should be studied in their proper order and time; and I need hardly remind you that at the end of your second winter there is an ordeal to be gone through—the primary examination of the College of Surgeons,—and if, from want of due preparation, you should have to defer this, then during your third year, when you should be devoting your whole energies to clinical work, you will find your attention distracted and your time taken up by your preliminary subjects. And thus the whole plan of your training will be marred. You should, then, make up your minds to pass this examination at the proper time; and surely you will not shirk the first obstacle in your path, or shrink back from the first trial to which you will be exposed! Do not, then, stand loitering on the banks of the river of difficulty, but at once plunge boldly across. But even with the best intentions we all know that accidents will sometimes happen, and if a mishap should occur there is no need to be discouraged. Many men who have afterwards attained the highest place in the profession have met with a similar misfortune. If, then, there should be any here in this predicament, to them I would use the words of Hickson—

"'Tis a lesson you should heed,
Try, try again;
If at first you don't succeed,
Try, try again;
Then your courage should appear.
If you only persevere,
You will conquer, never fear,
Try, try again."

The next point which I wish to urge upon you is, to be diligent in your attendance in the wards of the hospital. Now, to derive advantage from attendance in the wards requires some patience and perseverance on the part of the student. Much of the time of the visit is of necessity taken up by what may seem mere matters of routine, required for the proper care of the patients, and which may seem of but little interest, though even here much may be learnt. In this country, too, the custom has not been introduced which prevails in many continental schools, of selecting from a large hospital all the cases of clinical interest into particular

wards, and making them the subject of elaborate demonstrations. This practice, though no doubt one of great value, is not without some drawbacks, and I am not sure that a quieter mode of instruction, in which more is left to the initiative of the student himself, does not often turn out better practitioners. When, however, you visit the ward you should make a point of observing for yourselves. Look at the tongue, feel the pulse, observe the countenance, auscultate, percuss, listen to the history of the case when read from the case-book, note the treatment; endeavour in all the more important cases to form some idea in your own minds as to their nature and course; and should the case end fatally, pursue it to the post-mortem room, and criticise, if you like, the errors in diagnosis which then so often become apparent.

But how many students do we see who hardly ever visit the wards, and, when they do, loiter about in a desultory manner, and hardly ever make a real observation at all. They seem to think that, by taking a clerkship or a dressership for six months, they will acquire all the practical knowledge which they need. But I need hardly say that far more than this goes to make a successful practitioner. The closest observation, extended over the longest possible time, is all too little.

The order and method of your studies have been laid down by the authorities, and therefore I need not stop to consider them; all we have to do is to make the best use of their regulations. Thus, in attending lectures—of which I certainly think too many are required of you—you should try and fix your attention, and you cannot fail to learn much. The habit, too, of fixing the attention is one of the highest value. Some minds, no doubt, are so constituted that they learn better from books, but most require the guidance and stimulus of oral instruction. Then there is another part of these systematic courses which is of the greatest utility—the periodical examinations. Besides serving as a test of your progress, they will teach you how to express your thoughts in writing—an acquirement of no small value, and one which all examiners find to be commonly very deficient.

With regard to the employment of your time apart from your studies, it does not fall within my province to advise you; but only let your profession be always first in your minds, and then everything else will be second, and you will not be tempted to spend more time in other pursuits than is compatible with the prosecution of your studies. The late Sir George Cornewall Lewis used to say that life would be enjoyable enough if it were not for its amusements; but this is evidently a sentiment better adapted for the old than the young. But, whatever be your amusements, let them be such as will conduce to the health of both mind and body, for this is their true office. And with regard to your health a few words of caution may not be out of place. It cannot be denied that the study of medicine puts a considerable strain on the health, and we see many students break down under it, not infrequently from their own fault. If they only study by fits and starts, and reserve all serious work for the few months preceding their examinations, and then perhaps dissect all day and read half the night, it is not to be wondered at if their health suffers; but you should regard your health not only as one of the most essential elements for success in life, but also as a talent entrusted to your care, which you are as much bound to use to the best advantage, and not to squander recklessly away, as would be the case with any other gift of mind or body.

In considering the mode of spending your spare time I may perhaps venture to recommend one which will combine pleasure and profit. I refer to the Students' Medical Society. Not only will this afford the opportunity of much pleasant social intercourse, and give you the means of passing many a pleasant evening, but it may be made of the greatest use in your training. Bacon, as you know, says, "Reading maketh a full man, writing an exact man, speaking a ready man," and the business of the Society, the preparation, writing, and discussion of papers, calls all these into play, and of these the last is by no means to be despised. It may be true, as Goëthe says, that understanding and good sense require little art for their delivery; nevertheless they do require some, and though no doubt it is tiresome enough to have to listen to a copious flow of words accompanied by a very scanty supply of ideas, none the less is it painful to see some one vainly struggling to express his thoughts from a want of that readiness which a little practice will so easily give.

I have now, however, come to the end of my good advice. You will find that the trials and difficulties which you have to go through are no so very grievous burden after all, and you may depend on it that you are now entering upon one of the happiest periods of your life. Perhaps some of you on the benches above are inclined to envy those who are seated down here in the area, who have passed through these difficulties, and at any rate have nothing more to fear from examiners; but, gentlemen, believe me there are worse evils in life than passing examinations, and I have no doubt if you could read the thoughts of many of those down here you would find that they, and with far better reason, envy you. For who would not, if he could, have his student-days over again? To be again embarking on a voyage of unsurpassed interest, with all the freshness and hopes of youth, surrounded by congenial companions, is indeed a prospect to be envied. But if you wish to have the full enjoyment of this period of your life you must be students in deed and not only in name; then in after years you will be able to look back upon your student-days with unmixed pleasure, and will not have your memories embittered by recollections of misspent time and wasted opportunities.

It but remains for me to say a few words as to medicine considered as a profession—in what spirit it ought to be practised. This has been handed down to us from remote antiquity. In that oath which Hippocrates two-and-twenty centuries ago required of those whom he initiated into the profession we find words to this effect:—"I swear by Apollo the healer, by Æsculapius, and all the gods, that with purity and holiness I will pass my life and practise my art; that into whatever houses I enter it shall be only for the good of the sick; and I will abstain from all arts of mischief and corruption. That mode of treatment which according to my ability and judgment I consider best for my patients I will pursue, and I will abstain from anything injurious to them; whatever I shall observe in the lives of men, either in connexion with my practice, or not in connexion with it, which ought not be revealed, I will keep secret. So long as I shall keep this oath unviolated, may it be granted to me to enjoy my life and the practice of my art respected by all men; but if I shall break it, may the reverse be my lot."

"Creeds change, rites pass, no altar standeth whole;"

but the divine idea which underlies these outward forms remains imperishable. And if upon us the light shines more brightly, and through a clearer medium, let us not fall short of the standard laid down by the great pagan physician; and to this standard I believe the medical profession has ever endeavoured to conform, whether practised in ancient or in modern times, whether by pagans, by Jews, by Mahometans, or by Christians.

The medical profession, indeed, forms no caste apart from the rest of society, but shares all its vicissitudes, whether for good or ill; and there have been times of great corruption, and when the sense of public duty was weakened, and when our profession has failed to act up to its standard. Thus we read that in the great Plague of London, in the reign of Charles II., with very few exceptions the whole body of physicians fled into the country, and left their patients to shift for themselves. One of these few exceptions was Dr. Thomas Wharton, whose portrait still adorns the walls of the College of Physicians; and to him the King made a promise that, if he would stay and look after the Guards, he would, at the next vacancy, make him his physician-in-ordinary. When, however, the panic was over, and the appointment became vacant, it was given to somebody else.

So, too, there have been times of frivolity and folly when true science gave place to vain pedantry, and when our profession afforded abundant material for the satirist; and we read in Molière and Le Sage of physicians like Dr. Tomès, Dr. Macrotin, and Dr. Sangrado—men who imposed upon the public with their square caps and black gowns and solemn gait, and mystified their patients, and perhaps themselves, with talk about the innate pulsific vigour of the heart and the vis dormitiva of opium. Ah! said Pascal, if physicians possessed the true art of healing they would not need their square caps; but, as they only have an imaginary science, they are compelled to resort to these vain instruments to strike the imagination and attract the admiration of the vulgar.

May we, then, hope that we do possess the true science

and the true art? At any rate, we have long given up these outward marks of distinction; nay, in our own day we have surrendered the very citadel of mystification—our dog-Latin; and no doubt the reason given by Pascal is the true one. We now feel we stand on a more secure basis, and do not need these extraneous aids. And it is on the cultivation of our science and its application to the wants of the community that the true position of our profession depends. We sometimes hear discussions raised and complaints made that the medical profession does not take the position it should, and that it is overlooked in the distribution of honours and rewards; and from many positions which command the public respect we are necessarily cut off. Thus there is the regard paid to high rank and high office in the State; but these lie quite outside the sphere of our activity. Then there is the influence which must ever be exercised by wealth; but wealth in a profession like ours can never fall to the lot of more than a very few. Most of us must be contented if we can obtain an honourable competency. Then there is the respect paid to the sacred character of the ministers of religion, to which a purely secular profession like ours can make no claim. But perhaps you are disposed to ask what remains for us. Gentlemen, if you do indeed possess the true art—if it shall be found that into whatever house you enter it shall be really for the benefit of the sick—you will find that you may obtain not only the respect but even the love of your fellow-men, and if you should be so fortunate as to gain this you may well afford to let the rest go.

For me to lay down rules for your guidance in life, or to pass from the platform of the lecturer into the pulpit of the preacher, would indeed be presumptuous. But I may perhaps venture to remind you of one consideration, a truth which in these days of specialities we are perhaps too apt to forget—"If any member suffers, the whole body suffers with it." You have now become part of a vast body, whose activity extends over the whole civilised world, a society whose members are united by the bonds of common aims and common aspirations, and who hold close intercourse with one another by means of their writings, and in these days of congresses by personal communication—a body which will feel keenly, and resent deeply, any dereliction of duty on the part of any of its members as a slur cast on itself, as it will hail with joy and pride any advance in our science, any improvement in our art, or any conspicuous devotion to duty, as reflecting honour on the whole: a body proud of the great names which have adorned it in the past, whom it holds up for our imitation; for surely we are entitled to say that the truly catholic profession of medicine has had its saints and its martyrs, in whose footsteps we are invited to tread, and whose bright examples to follow—saints whose miracles were real, martyrs who died in the cause of humanity.

And now I may perhaps be permitted to conclude with those familiar, yet ever solemn, words of Hippocrates which stand at the head of all medical literature, words which will impress us still more strongly from the circumstances under which we are met together to-day: "Life is short, art long, the occasion fleeting, experience fallacious, and judgment difficult."

Make the most, then, of the short life, of whose shortness and uncertainty we have to-day had so sad an example; apply yourselves to the long art; snatch the fleeting occasion; learn from the fallacious experience; strengthen the vacillating judgment; show yourselves worthy of the hospital in which you have been trained, of the country of which you are citizens, of the profession of which you have become members; and as you shall practise your art in this spirit, so may you prosper.

IODINE IN MALARIA.—It is stated in the *Maryland Med. Journal*, by Dr. Morrison, that he has treated 250 cases of acute malarial poisoning with great success by tincture of iodine, giving fifteen minims three times a day, made up with sugar and gum, and largely diluted, and taken a quarter of an hour before meals. It has no especial action in chronic malarial poisoning. Constipation, pregnancy, or lactation do not contraindicate its use.—*Louisville Med. News*, September 23.—Dr. Jennings (*New York Med. Record*, September 16) states that in intermittents he has very successfully employed equal parts of tincture of iodine and Fowler's solution, in doses of ten drops after each meal.]

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.

By HERBERT WATNEY, M.D., M.R.C.P.,
Assistant-Physician and Joint Lecturer on Physiology at the Hospital.

AFTER referring to the loss sustained by the medical school through the resignation of Dr. Barclay, the lecturer spoke of the new examination instituted by the Royal College of Surgeons, to be held by the teachers of anatomy and physiology. He considered that it will be only a guide and help to the ordinary hard-working student, and will be so easy as not to discourage any, but will prevent the first year of student-life being partially wasted, as has sometimes been the case.

A short account was then given of some of the sciences bearing on Medicine; he said:—"Anatomy, the foundation of the medical sciences, can now be satisfactorily studied by all who enter our profession; but this has only been the case during the last hundred years. It is, however, a question whether the pendulum has not now swung a little too far; whether the examination in the minor details of anatomy, and, consequently, the teaching of these details, have not gone further than there is any need; whether the oldest science does not engross too much of the student's powers, not as regards its essential principles, but for its minutiæ." And the very strong opinion of William Hunter was quoted to the same effect. He then dwelt on the importance of physiology, and its fascination as a study, bringing us face to face as it does with the problems of life and death, and leading us to "the borderland of the material and the immaterial"; but he pointed out that the same evil of over-rating the importance of minutiæ is sometimes met with in this study, saying that there is a physiology whose devotees seem to think more of the instruments or the specimens, soon to be set aside for newer and better ones, than of the valuable observations obtainable by such means. Pathology was described as being at present divided into two great branches—one, which may be fairly classed as belonging to the two sciences of anatomy and physiology, dealing with the anatomical or physiological changes wrought in the body; the other quite different in its character, aiming at much deeper knowledge, seeking to discover the causes of certain diseases, even, it is said, cultivating these causes, and so controlling them that they become innocuous. It is probable that vaccination is a remarkable instance of this method of rendering a virulent poison harmless by means of a series of cultivations in the bodies of the lower animals. The great necessity for the study of pharmacology was next referred to, and the study of materia medica was alluded to as being only a "survival." The value of hygiene was then spoken of, and the change in the death-rate of the population during a number of years was considered a clear indication that hygiene is giving us most valuable aid in our struggle with disease. He remarked that during the time that the sciences bearing on the healing art have been developing, much work which may truly be called scientific has been accomplished in medicine and surgery; but we are still obliged in great measure to act from the basis of experience and from a knowledge which, though it has the authority of time, has never had a scientific foundation.

The lecturer then attempted to answer the question, What should be the due relationship between the scientific and the practical in the training of the student, and in his after-life as a medical man? After showing that there is generally an intimate union of these two apparently opposite principles in those whom we regard with the greatest respect, he proceeded:—"A scientific education implies study with a view to the acquisition of knowledge apart from any ulterior object; that is, seeking to know what has been accomplished in any subject, and to be so placed that future progress is possible, supposing that the patience and abilities of the individual are equal to such advance. It should, however, also include the acquisition of the scientific method. Practical education implies the study of any subject in such a manner that we can bring our knowledge to bear at the

present or at a future time. The scientific worker is remarkable for his dissatisfaction with the present state of our attainments and his desire to know more; further, he is noted for the accuracy of his knowledge,—it may be only in a very limited field, but in that field he is not only aware of what has been discovered, but of the manner in which the discoveries were arrived at, and the extremely unsatisfactory basis on which much of our supposed knowledge rests. On the other hand, the sympathies of the practical worker are with that portion of mankind which exists near and about him; and his energies and abilities are concentrated to produce, with the present fund of knowledge, the greatest results and the utmost benefit. It cannot," he said, "be too strongly insisted on, that the study of the sciences bearing on medicine will not alone enable you to become a safe guide in surgery or medicine. These last have to be studied; they have their methods and instruments of precision, some of which, such as chemical reagents, are well known to the chemist, others, as the thermometer, to the physicist; yet it is impossible for any physicist or chemist, or even for those who have studied the sciences more nearly allied to our profession, to understand the value of certain phenomena, taken in conjunction with others, unless they have studied medicine itself. Therefore, in answer to the question, What is to be the relationship between the scientific and the practical in your course of study? I would say, if you wish to follow the practice of medicine, do not devote too much time to the study of the sciences; they are to be only portions of your education; they are the sources of much knowledge, but they are not the knowledge itself."

He then continued:—"Science is not liked by some, because it makes so little of the individual opinion, and treats so lightly that power which some men have of enforcing their views and persuading their fellow-men. In politics and in art we see the immense influence of the individual—how his word is taken almost as law. Yet the habit of accepting without question what is told us has been the most fatal stumbling-block to the advance of medicine. The reputation of Galen helped to retard for centuries the advance of anatomy; and the deference paid to authority during the middle ages did incalculable injury to the large body of practitioners of that time, who learned to work in a mechanical, self-satisfied manner, impatient of any advance, unobservant, allowing centuries of time to pass and millions of sick folk to be under their hands without attempting anything further than to struggle with one another as to who should be the greatest, 'seeking rather to conquer their opponents in argument than to penetrate the secrets of nature.' It is, however, easy, standing on the platform of our present knowledge, to point out the failures of the past generation; but the question which every thoughtful man will put to himself is not What were their absurdities, their mistakes? but, What can we learn from their failures? It is clear that ability will not prevent mistakes and even absurdities, for many of the older practitioners were men of great genius, and we have no proof at all that there is more ability now than formerly, nor can anyone imagine that we take more pains than formerly were taken. Must we, then, assume that we have a better method; and yet who can say that he has a better method than Harvey? At last we are driven to the conclusion that medicine is a progressive science, and that we are profiting by the information obtained by others, reaping the fruit sown by them at great expense, after many failures and much disappointment.

"Now, with regard to the question, What is to be the relationship between the scientific and the practical in your future life? I would urge that everyone who practises the medical profession should, besides his ordinary avocations, work in a scientific manner at some subject, and aid in the advance of knowledge. It is very necessary that you start with one humbling thought, that you cannot finish your studies, and that you must go into practice to a certain extent incompletely prepared. It is impossible that you should be a good anatomist, or physiologist, or a good practitioner, when you leave this or any other school of medicine. It has lately been debated whether four years is enough for study, and whether the curriculum ought not to extend over five years. Surely ten years would not be enough to master anatomy and physiology alone, and by the end of that time so many advances would have been made, that you would hardly be able to keep your knowledge current with the times; thus physiology is being split up into various departments, and few are skilled alike in physiological chemistry, in experimental physiology, and in the use of the microscope. If you grieve at the thought that your knowledge must necessarily be imperfect, console yourselves with the fact that it is found in planting trees in exposed and windy situations that it is necessary to take quite young and small ones; for that the older and taller trees, which have had the advantage of good surroundings, and have been accustomed for a long time to cling to their supports, do not grow so well in such situations as shorter trees, which, though smaller when first put in, eventually become more vigorous. So the well-taught but not too fully taught student, thought at first he may seem behind the artificially forced stripling, will send his roots down deeper, and obtain a firmer hold in any new undertaking he may choose.

"And you are sure of true success. Your aim will be to allay pain, to prevent the effects of wrong-doing, and to combat death. It is true your patients will suffer for their follies, will at times be wrung by pain, and will at length all die; yet you will be successful, because you will not set before yourselves or others the false chimera that you can finally resist death, or prevent its painful accompaniments. You will accomplish what you hoped to do—alleviate pain, in a great measure prevent the effects of evil, and delay the advent of Death himself. Yes, you will succeed; but let not that be our only success: great as it may be, we may look forward to the time when we shall meet Him and be with Him who alone has conquered pain and sin and death, and who has won a complete success for us."

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF

ST. THOMAS'S HOSPITAL MEDICAL AND SURGICAL COLLEGE.

By S. J. SHARKEY, M.A., M.B., M.R.C.P.,

Assistant-Physician to the Hospital, and Joint-Lecturer on Pathology and Demonstrator of Morbid Anatomy in the College.

After giving reasons for having chosen as the subject of his address, "Some Characteristics of Modern Medicine," Dr. Sharkey referred to the early history of the art, and to "the ignorance, superstition, and imposture" which resulted from its being entirely in the hands of the priests. He said that notwithstanding the sound scientific methods which Hippocrates long ago laid down, the progress of medicine had been an interrupted one. "Though a plant of gradual growth, it had passed through the greatest vicissitudes. From time to time it had burst into bloom, warmed by the glow of some enthusiastic genius; and then again it had languished almost to extinction under the withering influences of unscientific culture or neglect." Dr. Sharkey then pointed out that proper methods are futile unless employed in the right direction, and that really scientific medicine has only gradually become possible by the progress which has been made in the sciences that are its foundation.

"The great characteristic," he said, "of modern medicine consisted in the union of anatomy, physiology, chemistry, physics, and pathology, to form the compound science of medicine, and in the clear appreciation of their necessary interdependence. . . . There was a time, and that not so long ago, when most of these subjects were thought to have but little to do with the actual practice of our art, when physiology and pathology were talked of rather as subjects to be mastered by a few learned professors, to be more or less familiar to a certain number of leading practitioners, and to be all but ignored by the great mass of the profession. But things are so no longer. . . .

"What has really given medicine a claim to be placed among the sciences is the recognition of physiology as its basis; and what has given physiology itself precision is the experimental method of investigation. We do not for a moment assert that without vivisection there would be no physiology; but the irreconcilable opponents of the former cannot even be convinced of the great advantages which have resulted to physiology and to medicine alike from the

practice of experimenting upon living animals. The fault, however, lies with the anti-vivisectors, and not with us. For the foundation of modern medicine is physiology; and one of the essential factors in accurate scientific physiology is experiment. To appreciate these propositions one must first appreciate the facts and history of physiology and of medicine. But this cannot be done, though some insist that it can, by people who have little or no knowledge of these sciences. The answer to those who would suppress vivisection lies, not in quoting individual useful applications to medicine of facts which have been discovered entirely by vivisection, but in pointing to the comparative precision which pervades the whole of modern physiology, and which is being gradually introduced into practical medicine—a precision which we owe to experimental methods of research." In answer to the question, "What has been the effect of the rapid progress of scientific knowledge on the actual practice of medicine?" Dr. Sharkey referred to the great advances which had been made in the diagnosis at the bedside of the exact nature and situation of morbid conditions, owing to improved methods of physical examination, and to the numerous instruments which had been invented for that purpose. Increasing knowledge had also produced greater power of prognosis, or the foretelling of the future course of disease. Dr. Sharkey went on to say—"However essential prognosis and diagnosis may be for the welfare of patients, the great test of the efficacy of our art naturally lies in the results of treatment. What can be said of this? Have improvements in the treatment of disease kept pace with the advances in pathology and diagnosis?" This he answered in the affirmative, though, as he remarked, "the methods used do not always appeal to the feelings of the public in the same way as if we dosed them with medicine." Dr. Sharkey's concluding remarks on modern treatment were the following: "To sum up, then, what can be said of the principles of modern treatment. We have thrown down the idol of universal specifics which men had hewn out of false conceptions of disease. We have set up in its place rational scientific treatment, founded upon the knowledge of physiological processes in health and in disease; and we aim, as far as drugs are concerned, at the discovery by observation and experiment of the physiological action of substances which can then be used with greater precision in therapeutics. And although this rational pharmacology is still in its infancy, we already possess some drugs the action of which we fairly well understand. We have a few remedies which appear to have just claims to the title of specifics, and we still harbour a probably legitimate hope of discovering others, which may be effectual in certain diseases before they have produced serious organic lesions. Great strides have been made in medical surgery, and we seem likely to advance still further in this direction. But our grandest aspirations lie in the path of preventive medicine, a department which should not only embrace attempts to exterminate some diseases, and to diminish the number of persons who fall victims to others, but must likewise include efforts to prevent the extension of morbid processes which have already begun in the organs of our patients, by regulating their lives in accordance with the teachings of physiology.

"But, it may be asked, have the modern methods been productive of good unalloyed? Are there no evils to be striven against? One of the results of modern medical thought is the tendency to 'scepticism,' a tendency which we must not sweepingly condemn. It has arisen mainly with regard to the treatment of disease by drugs, and is the natural outcome of increasing knowledge. When a medical man studies disease from our present point of view, and is brought face to face with the wreck which it makes of the most vital structures, he must indeed be illogical if he does not rapidly cease to believe in the efficacy of any drugs whatsoever, either to repair the damage done, or to act as a substitute for the diseased organ in the economy. This scepticism regarding the possibility of finding specific cures for diseases in general is a most laudable trait, and shows an appreciation of the principles of modern therapeutics, which is likely to lead to a far more effectual treatment of the patient than any blindly empirical administration of remedies. But, gentlemen, you must not misunderstand me, and suppose that I have less confidence than I really have in our Pharmacopœia. I believe it to be made up of—firstly, a small number of very useful drugs, the physiological action of which is known, and the application of which to diseased conditions is of incalculable value; secondly, it contains a considerable number of remedies, the efficacy of which has been proved in many abnormal conditions, though the *rationale* of their action is still unknown; and lastly, it contains a list of articles which some people assert to be useful for one thing, some for another, but about which very little of any value is known. Now, the sceptic who appears to me to be culpable and unscientific is not he who has no faith in, and consequently discards, the motley collection of substances contained in the third category; but he who declines to use any drugs except those of the first, the physiological action of which is well understood, and for the administration of which he can see a *rationale*. Such an one will not use those medicines, the properties of which have been ascertained by a long series of observations, while their mode of action is obscure. This is an illegitimate and reprehensible scepticism. For, although it must be the aim and glory of medical science to add constantly to those drugs the physiological action of which is known, and the application of which to disease is so much the more certain, still the medical art must always remain one of observation and experience, and it is rational and scientific to act upon the results of these, though we may have long to wait for an explanation of what occurs. . . .

"It has often been remarked that the best physicians use few drugs, and, compared with the whole contents of the Pharmacopœia, the rational, scientific physician will have only a small number of remedies which he cares to prescribe. But, making himself by constant observation more familiar with their action and with the conditions to which they are applicable, he will use them rather as arms of precision, and his treatment will be to the point and effectual; while what may be called the 'mitrailleuse' system of the less sceptical practitioners of former days relied rather upon the number of substances which were mixed together, in the hope that some might hit the mark." After referring to the many medical sects and systems which had flourished and decayed, and commenting on the absurdities of the last of them (homœopathy), Dr. Sharkey concluded thus:—"The day has long gone by when systems of medicine were admissible. There is but one system, the scientific, which rests upon observation and experiment, and upon the application of science in general as a guide to the knowledge and treatment of disease; therefore, avoid being led astray by the seductive theories of any sect whatsoever. Be neither homœopaths, nor allopaths, nor antipaths, nor any other 'paths,' but scientific medical men. And if you really are such, you will secure one of the greatest sources of happiness through life, one of the greatest consolations in its many uncertainties—an enthusiasm for your profession. And having that, you cannot fail to feel also a love and enthusiasm for the school where you first became imbued with the principles of scientific medicine."

Leucorrhœa in Children.—During a discussion on this subject at the Practitioners' Society (*New York Med. Record*, September 16), Dr. Kinnicutt said that he had met with a great number of cases of a very obstinate character in the New York Hospital. The leucorrhœa was not infrequently associated with the strumous diathesis, but occasionally careful investigation had only revealed the presence of a large amount of uric acid in the urine. He suggested that the leucorrhœa might be due to the extension of a urethral inflammation, excited by this salt, to the vaginal mucous membrane. That a urethritis might be produced in this way there was no doubt; moreover, a vaginal catarrh was not of infrequent occurrence in gouty women. In the gouty diathesis it is well known that the mucous membranes throughout the body are prone to take on an inflammatory condition. In other words, there was present in the diathesis both an increased susceptibility of the mucous membranes and an irritant (uric acid) capable of acting locally. In the cases referred to there was marked irritation of the external parts. Examination of the urine showed a very marked uric acid condition, occasionally almost amounting to "gravel." Dr. Kinnicutt cited several cases in which the leucorrhœa was pronounced, but of short duration. In his experience, the leucorrheal discharges, associated with strumous diathesis, persisted for weeks, and even months. He would feel some doubt as to the propriety of local treatment in such cases.

ABSTRACT OF

INTRODUCTORY ADDRESS

DELIVERED AT THE OPENING OF THE

WESTMINSTER HOSPITAL MEDICAL SCHOOL.

By Dr. DE HAVILLAND HALL, M.D. Lond., F.R.C.P.,
Assistant-Physician to the Hospital.

Dr. Hall commenced his address by pointing out some of the advantages of a small medical school, as, for instance, the greater amount of personal intercourse between staff and students, and the greater opportunities for dressing, clerking, etc. Nor from their own point of view should the larger hospitals wish for the extinction of the smaller, as the latter are useful in training physicians and surgeons. He instanced Mr. Power, Dr. Russell Reynolds, Mr. Christopher Heath, and Mr. Francis Mason, as men who had won their spurs at Westminster, and then migrated to larger hospitals.

It is greatly to the credit of the Westminster Hospital that, in the language of one of the old reports, "It is the parent of all the medical and surgical charities of these kingdoms that are supported by voluntary contribution."

After these introductory remarks the lecturer commented on the change of life the medical student experiences at the commencement of his hospital career, and warned the men not to be depressed by their difficulties, and advised hard work as a panacea to all doubts.

The advantages of the examination at the end of the first winter session, recently instituted by the Royal College of Surgeons, were then alluded to.

The importance of mastering the minute details of anatomy, so as to develope the powers of observation and mental concentration, was insisted upon—anatomy being selected for this purpose, as being the most exact of the subjects in immediate relation to medicine; but it was to be anatomy learnt by actual dissection, and not the counterfeit obtained by cram-books and tips.

During their first two years, students were advised to do the minimum amount of surgical work required by the regulations of the Royal College of Surgeons, and to make certain of passing the primary examination at the College of Surgeons at the end of their second winter session, and the first examination of the College of Physicians in the following July. In this case all preliminary work will have been accomplished in two years, and two years—all too short a time—will remain for the more practical part of the studies.

Dr. Hall advised all who had not already settled their plans to consult the Dean or some competent medical friend as to the qualifications they intended to take. He showed the inconvenience caused by the student discovering, after he has commenced his career, that he requires a degree in medicine.

The Durham degree was recommended to those who were not quite up to the standard of the London University, or who could not afford the expense of the Oxford or Cambridge degrees.

Dr. Hall expressed himself a believer in the advantages of lectures. "A lecturer can lay stress on the more important points; he can make use of more familiar language than is usually allowable in books; and, moreover, he can be dogmatic, that is to say, he can lay down the broad rules, leaving the student to find out the exceptions later on. Lastly, in such a progressive science as medicine, unless students be prepared to get fresh editions of books every year, attendance at lectures is the only feasible way of keeping abreast with the daily increase in knowledge."

The plan of taking short notes at lectures, to be copied out more fully the same evening, was advocated.

Speaking of thoroughness, the lecturer said: "Do not be in too great a hurry to get over your work. Bear in mind that a little knowledge thoroughly well assimilated is worth any amount of loosely connected facts. In medicine, as in every other department of life, the essential point is to lay a good foundation. This done, there is a great probability of the superstructure being solid and durable. If, however, you begin your medical career with an inaccurate knowledge of the sciences on which medicine is based, be sure that you will never practise your profession with anything like satisfaction to yourself or advantage to your patients. At best you will be little better than empirics."

Referring to the physical needs of the body, the necessity of good health, if the medical man is not himself to fall a victim to the very disease which he was called upon to treat, was insisted upon.

Dr. Hall advised steady working, so as to avoid any necessity for burning the midnight oil. In speaking of recreation, the lecturer contrasted the advantages of cricket and football and outdoor amusements as against billiards.

The lecturer then touched upon the province of the moralist, and mentioned some of the dire consequences attendant upon infringement of the moral law, and spoke of the need of care in the selection of friends and in the employment of time. He next proceeded to dwell on the different careers open to the medical man, pointing out the respective advantages of general practice, the Services, etc. He concluded by quoting the Hippocratic oath, in reference to which he said: "The enlightened morality of the oath, and the admirable rules laid down in it for the conduct of the medical man towards his patient, leaves little to be desired; and if you only act up to the spirit of this document, over two thousand years old, you will obtain, if not wealth, at all events the respect and esteem of all with whom you come in contact, and a happy hereafter."

ABSTRACT OF

INAUGURAL ADDRESS

DELIVERED TO THE STUDENTS OF

QUEEN'S COLLEGE, BIRMINGHAM.

By EDWIN RICKARDS, M.A., M.B. Oxon.,
M.R.C.P. Lond.,
Physician to the General Hospital, Birmingham; Professor of Pathology.

After a few introductory remarks, Dr. Rickards gave an outline of the history of the Medical School, which was started in 1828 as the Birmingham Royal School of Medicine and Surgery. The local medical activity, instrumental in its first formation, led to the creation of a second school in 1851—Sydenham College. The two institutions, having served their purposes for many years, became, in 1868, merged into one—Queen's College. In 1873, for the purposes of clinical teaching, the practices of the General and the Queen's Hospitals were amalgamated, and students were required to attend each hospital alternately for six months. This arrangement gave them the opportunity of seeing the practice of the staffs of both hospitals, and enabled them to cull their experience from the widest possible field. During the past year a change had been effected in the medical department of Queen's College. An arrangement had been made for its students to receive the strictly scientific part of their education at Mason's College. He went on to say that, to those who had been instrumental in the formation and reformation of the Birmingham Medical School, this town and district were under a deep debt of gratitude. It was an unquestionable fact that a medical school increased the skill of the practitioners of the district, and developed medical knowledge as regards the prevention and treatment of disease. It had been urged against provincial medical schools that they were unable to offer their students advantages equal to those of the metropolitan schools, and therefore decoyed students from the best education; but Birmingham, he thought, need not shrink from comparing its school, as at present constituted, with any in the United Kingdom. There was one disadvantage under which its student who purposed taking the degree of Doctor of Medicine still laboured. He had to go elsewhere to pass his examinations, and was even obliged, in some cases at any rate, to complete a period of residence and a course of study at another medical school before he was allowed to present himself for examination. This was why the local medical profession was directly interested in the establishment of a university in the town. Already there were in Birmingham a number of institutions devoted to higher education, each with its staff of professors engaged in teaching literature, languages, mathematics, natural science, fine arts, theology, and engineering. Surely

these institutions might in some way be affiliated so as to make the possibility of a university in Birmingham no mere dream. He then proceeded to speak on education, especially in reference to the medical calling. He thought the time was coming when the teaching of natural science would take the place of that of the dead languages in the education of those who were not going to make literature their business in life. In the middle and upper class schools the boy's mind was already so taxed as to admit of no further strain. The direction of any change in his education must rather be towards altering the subjects taught than in adding to his school-hours. He considered that, as regards the training of the mind to such habits as those of rapid thought, quick observation, fixed attention, sound reasoning, the teaching of natural science would surpass that of the dead languages, and that the other requisite mental training might be acquired by the study of modern literature, with the help of a knowledge of modern languages. He maintained that by the use of the dead languages as the chief means of training the minds of the young, an amount of time and brain-power was expended which would be of the greatest possible value if applied to the study of subjects more directly connected with future careers. The early teaching of natural science would not only prepare the mind for a more complete study of its various branches, but would create a desire for advanced scientific knowledge and for the prosecution of scientific research. He thought that, on the grounds of political economy, natural science should not be restricted to the few, but should be widely taught in public schools. He quoted Professor Huxley, "I weigh my words when I say that if the nation could purchase a potential Watt, or Davy, or Faraday at the cost of £100,000 down, he would be dirt-cheap at the money," and remarked that the more labourers there were in the field of science, the greater would be the probability of getting a potential Watt, Davy, or Faraday. He went on to say that when a student entered a medical school, he ought to have acquired a sufficient knowledge of such sciences as physics, chemistry, and biology (not including human anatomy and physiology); that the time usually spent in the medical curriculum was sufficient only for the more strictly medical studies; that under the present system sufficient time was not spent by the generality of students in the wards of the hospitals. In speaking of the modern method of clinical research, he pointed out the value of certain medical appliances. The stethoscope had thrown a flood of light on diseases of the chest; by the aid of the microscope only could some diseases be detected; the laryngoscope had brought into view regions which the unaided eye could not reach; the ophthalmoscope revealed diseases of the brain and other organs, as well as those of the eye; the sphygmograph recorded those finer features of the pulse which the finger failed to detect, and thus supplemented the less accurate sense of touch by the more precise indications which the eye could read. The importance of the clinical thermometer was no longer disputed,—there was no trickery about mercury; the temperature could not be feigned or falsified; the thermometer signalled alarm or allayed fear; it often declared the nature of disease and directed therapeutic efforts. He said that the introduction of these instruments of precision, while facilitating correct diagnosis, had considerably augmented the labour of the student, and had made it imperative that he should devote more time to clinical work than formerly. But, he continued, the student had other objects in view in the wards than fitting on the medical armour for diagnosis—he had to learn the treatment of disease; and here he would find the greatest gap in the science of medicine which had to be bridged over by art. No amount of talent, no bookwork, no systematic lectures could take the place of bedside study in learning the art of treatment. The student must watch the experienced artist at the bedside. Turning to the students, the lecturer said they were on the threshold of a noble profession. Other callings ministered to the wants of man, when in the enjoyment of that greatest of all blessings—health. There came, however, a time when all that he possessed, all that he enjoyed—his ambition, his hopes, his plans,—were all under a cloud. That was the hour of sickness. It was then that they would be called upon to perform the noblest actions which could fall to the lot of man. To combat disease in all its forms, to give ease to the pain-racked frame, to succour the dying, to help to console the survivors,—these were only some of the high duties they would have to fulfil. He exhorted the students to work regularly and methodically, so that they might not have to resort to the "cramming" system. They should be advised by their seniors as to their working capacity. They ought not to overwork, squeezing two days' work into one; the midnight oil had put many a prizeman into a premature grave. He urged upon them the importance of practising putting their thoughts on paper, and of cultivating the memory and the art of speaking. And, in conclusion, he begged them not to let a mere diploma be the outcome of their medical curriculum, but that their grand object should be to fit themselves for the grave responsibilities of practice.

ORIGINAL COMMUNICATIONS.

ON THE ALBUMINURIA OF EPILEPSY.

By ROBERT SAUNDBY, M.D. Edin.,
Member of the Royal College of Physicians, and Assistant-Physician to the General Hospital, Birmingham.

THE occurrence of albuminuria in epilepsy is one of the most disputed points in clinical medicine. Max Huppert(a) and Otto(b) found it present in twenty-two out of thirty-one cases, both regarding it as a consequence of the general vascular disturbance due to the fit. Bazin(c) found twenty-seven examples of albuminuria in epilepsy during his year of office at Bicêtre, but does not state how many cases he examined altogether. The quantity varied from a faint trace to a copious precipitate, and was found only immediately after the attacks.

Dr. Emilie Bovell(d) states that Dr. Allen Sturge found albuminuria only three times out of twenty-five cases examined immediately after their attacks; while out of forty patients whose urine was several times examined by Dr. Bourneville at the Salpêtrière, not one had any albuminuria. Mabille(e) observed the urine of thirty-eight epileptics, using, as he says, the utmost care, but albumen was detected in only one case, and the patient in question had all the clinical signs of parenchymatous nephritis. Dr. Gowers(f) states that in forty-two examinations made by Dr. Beevor in twenty-three cases, albumen was found only once, and was absent when looked for after a subsequent attack. Kleudgen,(g) on the other hand, has made extensive observations upon fifty-seven confirmed epileptics, and has stated that albumen could generally be found in the urine passed within four hours of an attack. The urine was drawn off with a catheter. It was absent only in about one-eighth of the entire number. Continuing his observations, he found albumen in the urine of a large number of insane patients who were not epileptic, and in the urine of eight out of thirty-two attendants. He is therefore disposed to regard it as merely physiological. He thinks an increase of the albumen after the fits is due to the presence of semen.

In view of this great diversity of statement, my own observations made three years ago are of some interest. At that time I was working generally at the subject of albuminuria, and examined the urine of twenty chronic epileptics. In all twenty-seven examinations were made, and albumen was found on all but five occasions. The quantity varied from a copious precipitate to a faint trace, but, as a general rule, was present in traces only.

The urine was examined by boiling and subsequently adding dilute acetic acid. This simple method is very delicate, yet excludes a number of doubtful proteids of whose pathological relationships we know at present next to nothing, and which are thrown down by the reagents sometimes employed. This method, too, avoids the fallacy referred to by Kleudgen with respect to semen, as, according to Simon, that secretion does not contain any albuminous body coagulable by heat.

I had only five opportunities of examining the urine directly after a fit, in every instance from a different patient.

(a) *Virchow's Archiv*, Bd. lix. S. 387.
(b) *Berliner Klinische Wochenschrift*, No. 42, 1876.
(c) "De l'Albuminurie Epileptique." Paris, 1868.
(d) "De quelques Accidents de l'Epilepsie." Paris, 1877.
(e) *Annales Medico-Psychologiques*, November, 1880.
(f) "Epilepsy and other Chronic Convulsive Disorders," page 106. 1881.
(g) *Archiv für Psychiatrie*, Bd. xi. Heft 2.

Of these, two specimens were free from albumen, while in the others traces only were present.

In four cases the urine was examined altogether eleven times. In the first, examined three times, there was always albumen present, although the period after a fit varied from one day to six weeks. In the second, examined three times, albumen was absent twice, one of these occasions being two days after a fit; while there was a trace of albumen once three weeks after a fit. In the third case there was albumen on each of the three occasions—a copious precipitate nine days after a fit, and a cloud and trace at intervals of sixteen and twenty-three days respectively. In the fourth case there was a trace on two occasions which were separated from a fit by one day and three weeks respectively. These figures show that there was no special relation between the albuminuria and the fits.

The patients were all males except one, and their ages varied from seven to forty, the average age of the cases with albuminuria being eighteen.

I obtained pulse-tracings of ten of these cases: three show decided low tension, and of these one had a large amount of albumen in his urine—the largest of the whole series; five show normal tension; in two only was the tension high, and those two cases presented nothing remarkable—both were boys of fifteen, and the amount of albumen was merely a trace. There was therefore no uniform condition present.

We are now tolerably familiar with the fact that albuminuria occurs with considerable frequency apart from Bright's disease, and especially in young persons who are dyspeptic and anæmic;(h) and I think the frequency of albuminuria, at least in my series of cases, is explicable by this fact.

The discrepancy between the various statements quoted may also in part depend upon the circumstance that some patients, like Bourneville's and Gowers', were living in hospital, taking little exercise, while others were, like my own, out-patients seen after walking some distance to the hospital. There can be no doubt of the fact that in certain cases albumen is present in the urine after walking, though absent at other times.(i)

PRACTICAL NOTES ON
THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(*Continued from page* 442.)

PESTILENTIA—PALI PLAGUE—MAHAMURREE.

Dr. Francis and the great majority of observers who have investigated Mahamurree in its habitat, place the causation of this plague in the filthy mode of life of the people, the paucity of their vegetable diet, and the absolutely insanitary state of their villages. The picture which Dr. Francis draws of the mode of life of these natives is very striking. He writes (page 400)—"Until hygienic measures were adopted, the general uncleanliness of the people in their persons and *entourage* was incredible. A small stone dwelling (built upon a surface thirteen feet square), consisting of two rooms, each about five feet high, one above another—the upper chimneyless and practically windowless; tenanted by the entire family, often more than half a dozen in number, and by the huge baskets containing the family grain; the lower compartment (a wooden floor, full of cracks serving as media for the effluvium from below, dividing the two) being occupied by the family herds, consisting of cows, goats, and pigs; a row of such dwellings (sometimes they are single or double, spread over an irregular surface), similarly tenanted, and flanked at either extremity by the ancestral heap of manure, from which streamlets of liquid filth were flowing in different directions; the cottages covered with cucurbitaceous creepers; a small forest of hemp, some eight or ten feet high, luxuriating in the immediate neighbourhood of the village; a growth of underwood, including nettles, etc., between the two, and more or less surrounding the latter; and unwashed paterfamilias, seated in front of his fig-tree, having submitted his head to be divested by a faithful spouse of the light infantry skirmishing in his unkempt hair! Conceive such a village, situated towards the base of a mountainous slope, well within the range of whatever noxious influences may emanate from the valley below; located where there would be the veriest minimum of ventilation; and we cannot be surprised if, when sickness does come, it should run rampant. The atmosphere and peculiar smell in these locations must be *encountered* to be appreciated. They are *sui generis*, and are very suggestive of disease."

Dr. Francis concludes that Mahamurree is highly contagious (he uses the term synonymously with infectious), and that once in existence it is rapidly propagated from person to person and from place to place, within certain ascertained bounds.

From the time at which Dr. Pearson was first deputed to investigate this disease with Dr. Francis in 1852, he, as holding an appointment in the district, is said by the latter authority to have had experience of Mahamurree, which has extended over more than a quarter of a century. In the Thirteenth Annual Report for 1876 of the Sanitary Commissioner with the Government of India, page 120, I find the following brief observation:—"The recurrence of Mahamari in the hill districts of Kumaon and Gurhwal may be noticed. Dr. Planck, the Sanitary Commissioner for the N.W.P., made a thorough inspection of the villages in which this disease occurred, and has given in his annual report a full and interesting account of the outbreak and of the nature of the disease. A short note on the same subject is also furnished by Dr. Watson, Superintendent of Vaccination" (Dr. Pearson's successor). "Both officers agree in the opinion that in its nature the disease is identical with Egyptian plague. Epidemic outbreaks have occurred previously at intervals of from ten to fifteen years; but notwithstanding that it spreads rapidly by infection among the hill people, it has never spread to the population of the plains below. Dr. Planck is disposed to attribute the development of the disease to the insanitary condition of the villages, especially to the custom which prevails among the people of keeping their cattle in the same houses in which they themselves live. Dr. Watson, on the other hand, is of opinion that the disease arises from the use of decaying grain, especially Mundua (*Eleucine coracana*), a grain much used by the people of the district, in which a peculiar fungus is generated." Upon this slight statement of its premises it is impossible to argue this opinion that plague is caused by eating diseased grain. The existence of this idea was known to Drs. Francis and Pearson, who consequently made examination of suspected grain and found that it was good throughout. Dr. Francis very much doubts that it ever lights up Mahamurree (a) The entire history of these maladies shows that no European has ever fallen a victim to Indian Plague.

Although several commentators have argued with considerable earnestness that this disease, in its several outbreaks since the year 1815, was not identical with the true Levantine Plague (as it doubtless was not, no two fevers of like denomination being *perfectly identical in type* when they occur in localities having different climates and situated far apart), the general consensus of opinion has always been that these Indian fevers are true Bubonic Plague.

In the reports and monographs which I have cited, many pages have been devoted to the question—Was plague conveyed from Egypt or elsewhere to India, and was it again conveyed from Western India to Gurhwal? The evidence, which is mainly slight and inconclusive, lies there fairly open to anyone who may care to sift it. I have done so with care and considerable interest; but I do not think that the generality of my readers would be willing to do so in the absence of any hope of arriving at certainty. All who have had the best opportunities of judging have concurred in the belief that, wherever this plague has appeared, the *local causes* were such as to account for its outbreak; and that, although it may possibly have been brought by contagion

(h) Parkes: "On the Composition of the Urine," page 186. Lauder Brunton: *Practitioner*, June, 1877. Moxon: *Guy's Hospital Reports*, third series, vol. xxiii. Saundby: *British Medical Journal*, May 10, 1879, and June 5, 1880; *Birmingham Medical Review*, October, 1879. Kunnert: *Archives of Medicine*, February, 1882.

(i) Leube: *Virchow's Archiv*, Bd. lxxii. Heft. 11. Morley Rooke: *British Medical Journal*, October 19, 1878. Bartels: "Ziemssen's Cyclopædia," vol. xv. p. 436. Sparks and Mitchell Bruce: *Transactions of the Royal Medical and Chirurgical Society*, vol. lxii.

(a) "Endemic Plague in India" (*Transactions of the Epidemiological Society of London*, vol. iv., part 3, page 402).

from a distance, there is no proof that such was the case, and that probability favours a negative opinion.

I do not find that any measures were adopted by the authorities with a view to limiting the spread of the first outbreak of this Plague in Western India in 1815-21, but we are told that, when it made its appearance among the Boras (manufacturers of cotton cloth) of Wunkaneer, it prevailed only in that class. Everyone who was attacked is said to have died. The Boras all left the town and went to live upon the mountain in the neighbourhood, leaving only those who were sick in their houses, and one attendant upon each of them. The whole of these soon died; but the pestilence lasted no longer than fifteen days.

It was considered at the time that energetic quarantine arrangements kept the Pali Plague almost entirely out of Mhairwarah. This is a hilly district, ninety miles in length, lying between Marwar and Meywar, in which two districts the plague attacked every village, Mhairwarah appearing to be exposed on both sides, throughout its whole extent, to the invasion of the disease. Captain Dixon, Superintendent, began by drawing two watchmen from each village and posting them in a continuous chain, first towards Marwar, and finally, when the disease passed into Meywar, along the whole "double frontier." These guards of the public health were kept on the alert by peshkars, acting as superintendents, who went their rounds once in two days; they were reported to have successfully opposed entrance by the known routes. But some traders, it is said, persuading the Marwarees to conduct porters with wares for sale through byeways in the hills to Dewair, infected that village. No other spot in this district suffered. Other sanitary cordons, superintended by medical officers, and patrolled by a thousand horsemen, were established in the North and South of Meywar. The principal military stations of our troops in the vicinity of the affected districts, Ajmere, Nusseerabad, Neemuch, were carefully defended by preventive lines. The able reviewer whom we have so largely quoted adds, "Whether from these energetic measures of precaution, or from some inscrutable law of the disease, it almost disappeared towards the end of the year 1837, without progressing beyond the districts originally assailed."

Although this has every appearance of having been an indisputable example of triumphal success in the experiment of checking the progress of an extremely communicable pest by means of sanitary cordons, and although it cannot be denied that this measure may very probably have been useful, we must perceive that other causes—locality, temperature, climate, soil, the diet and habits of the inhabitants, and their general hygienic surroundings—may probably have been very far more efficient in protecting the exempted localities. Dr. Pearson informs Dr. Francis that he has never heard of the exportation of Mahamurree since they worked together in 1852-53, save that, many years ago, a disease having very much the general character of Mahamurree appeared in one or two insanitary villages at the immediate foot of the hills in which Mahamurree was raging. Every Indian physician has probably followed with deep interest Dr. Edward Balfour's inquiry for localities in Madras exempt from Cholera. Dr. Francis shows that the progress of Mahamurree is marked by what appears to be a like "caprice," but which is probably governed by fixed natural laws still open to scientific inquiry. Thus Dr. Francis tells us of two villages, both situated on the same mountain steep and embedded in the same jungle, with the same N.N.E. aspect, only five hundred yards apart; and yet, at every visitation of Mahamurree, whilst one has always escaped, the other, Kunowlee, has not. "Doubtless," Dr. Francis adds, "there is some condition, the nature of which has not been fathomed, that secures the exemption." The mystery would be resolved should my friend Dr. Planck's local correspondent report that these two hamlets are respectively supplied by rival milk or water companies.

Systems of quarantine and the employment of expensive and cumbrous sanitary cordons have never been demanded in the management of the Plague of Gurhwal. This pest can scarcely be said to have "*spread*" at all. It self-evidently depends upon such exclusively local causes that it might, strictly speaking, be styled not so much "endemic" as "sporadic." The atmospheric or telluric endemia spares clean villages, but smites dirty ones. Attention to the commonest rules of personal, household, and village cleanliness has invariably put down every outbreak. The enforcement of these, however, from the first, always demanded scientific European supervision, carried out with absolute strictness and energy. The natives are inactive, incredulous, and disobedient. Thus Dr. Francis tells us that, at the outset, it was only when Dr. Pearson was invested with magisterial authority and power to enforce his own orders, up to the point of burning the infected villages, that his directions were complied with.(b)

As might be anticipated, little can be said with regard to the *Treatment* of cases of Indian Plague. Quinine has not the power of arresting the disease; but here, doubtless, as in true enteric fever and in nearly all Indian diseases, its moderate but steady use, as a means of sustaining vitality, is clearly indicated. Dr. Francis agrees with Dr. Watson that Hyposulphites "would, doubtless, be found useful." Good hygiene and supporting diet are equally indicated; but, of course, in those localities, the difficulty has always been to find cases of this rapidly deadly fever so little advanced as to afford fair scope for medicinal treatment.

In speaking of Indian Relapsing Fever, I have already alluded to the fact that there is a marked coincidence, if not a positive connexion, clearly observable in the times of the occurrence of great outbreaks of Indian Plague and of Indian Relapsing Fever. Whether there is or is not an intimate relation between the two diseases—which are, however, absolutely different in type—or whether they are to be regarded as entirely distinct, but concurrent, products of great atmospheric or telluric disturbance, evolving various epidemia, there can be no question that one has always appeared as the almost immediate herald of the other; and that each pest has run its own course of destruction concurrently, but usually in different and often widely separated districts of India. To follow this question with precision I must beg the reader to refer to my chapters on Relapsing Fever (c)

There have been, within our knowledge, four great or singularly marked outbreaks of Indian Plague—

1815-21, in Guzerat, Kutch, and Kattywar. In 1823, in Gurhwal.

1836, in Pali, Meywar, Malwa, etc.; also in Gurhwal.

1852, in Gurhwal.

1876, in Gurhwal.

In 1816, while Indian Plague was prevalent in Western India, a most destructive outbreak of Relapsing Fever raged between Patna and Seharumpore in the North-West. I have cited Dr. Jameson's account at page 116. In 1817 the great epidemic outbreak of Cholera ravaged Bengal. Thus, during the first three years of the prevalence of Plague in Western India, the entire width of British India, from West to East, was swept by pestilence. In 1818, while Plague was still prevalent in Western India, Relapsing Fever was distinctly observed at Bareilly—page 116.

In 1836, when Plague broke out at Pali, Mahamurree "first attracted much notice" in Gurhwal (Renny); and Bareilly, Rohilkund, Mynpoori, and the districts around Delhi were ravaged by Relapsing Fever—page 116.

In 1852-53, Drs. Francis and Pearson were directed by Government to investigate that which Dr. Francis designates as "the worst outbreak" of Mahamurree in Gurhwal. In these years occurred the epidemic of Relapsing Fever in the Usufzaie Valley, about forty miles from Peshawur, described after Dr. Lyall at page 115.(d)

(b) For a fuller account of the sanitary measures adopted, see my work on "The Means of Preserving the Health of European Soldiers in India."—*Ind. Annals M. S.*, No. xii. for 1867, page 614. They were effected at an expense to the State of only Rupees 1954 11.8—less than two hundred pounds sterling.

(c) *Medical Times and Gazette*, pages 115 and 145 of vol. i. for 1880.

(d) It appears probable that the Usufzaie Fever formed a link between Indian Plague and Indian Relapsing Fever. It was contagious, very destructive to life, and marked by a tendency to relapse; but it had a feature which is not usually characteristic of Indian Relapsing Fever—*i.e.*, there were inflammation and suppuration of the glands in the groin, axillæ, and neck in some who survived the relapses. I have seen parotid suppuration in typhus at Guy's Hospital, and this frequently occurs in the Remittent of the cold season in Calcutta, no other glands appearing to be affected in either case; but when a malignant, contagious, and deadly fever is attended with inguinal buboes it becomes allied to true plague. The Usufzaie Fever, however, was evidently allied to Relapsing Fever in being characterised by yellowness of the surface and by relapses.

In 1876 there was an outbreak of Mahamurree at Gurhwal, described by Drs. Planck and Watson, as cited above. In April, 1877, commenced the outbreak of Relapsing Fever, which was the first manifestation of this disease observed in Bombay, and of which an account is given by Dr. H. Vandyke Carter in his recently published monograph on Spirillum Fever.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

BLOOD-CYST IN THE NECK—TAPPING—SUBSEQUENTLY LAID OPEN—HEALING BY GRANULATION.

(Under the care of Mr. MARCUS BECK.)

F. P., a man, aged twenty-one, was brought to Mr. Beck by Dr. Grademann, in December, 1881. There was no family history of anything of the kind, nor of any form of tumour. The only illness he had had previously was scarlatina at the age of fifteen years, and he had recovered without any sequelæ. The swelling had "come up in the night" quite suddenly, about six months ago, since which time it had increased but very little. It was not painful, and no blow or other cause could be assigned.

Present State.—The swelling occupies the lower third of the posterior triangle of the neck; it hangs down over the clavicle somewhat; it is round in shape, somewhat lax, and distinctly fluctuating, and is about as large as an orange, measuring three inches by two and a quarter. Its shape varies a little with the movements of the head. The tumour cannot be raised from its deep attachments; the skin over it is normal. The external jugular vein runs down over the anterior third of the swelling. There is no pulsation, either direct or indirect. The swelling was aspirated by Mr. Beck, and some dark, blood-stained fluid was drawn off. It quickly refilled, and was again tapped, the fluid being darker in colour.

December 28.—Mr. Beck decided to cut down upon the cyst, and, if possible, to remove it in whole or in part. An incision was made above the clavicle and parallel to it; it was not carried forwards sufficiently far to endanger the jugular vein; a second incision was afterwards made upwards from the first parallel to the border of the trapezius. A little dissection brought the cyst-wall into view; it was very thin and almost transparent. About a square inch was exposed when it was accidentally ruptured. On putting the finger into the sac it was found to extend inwards beneath the sterno-mastoid to the carotid sheath; below, the first rib could be clearly felt, with the subclavian artery and the nerves of the brachial plexus lying over it, and thinly covered by the wall of the cyst. Outwards, the cyst extended a short distance beneath the trapezius. It being evidently impossible to dissect it out, it was injected with a strong solution of chloride of zinc, and a large drainage-tube inserted. The operation was performed under a carbolic acid spray, and Lister's dressing was applied afterwards. At no time during the operation was there the slightest tendency to hæmorrhage from the cyst-wall.

January 6.—The patient complained of slight pain down he left arm.

10th.—The wound was dressed; as some bagging of discharge had taken place, another drainage-tube was inserted.

20th.—Has been suppurating rather freely. The wound, however, is now granulating healthily. The antiseptic dressings are carefully continued.

30th.—The redness has disappeared from the edges of the wound; the suppuration has considerably diminished. The temperature is normal. Antiseptic dressings were discontinued, as the patient left the hospital, and iodoform dressing was substituted.

The wound gradually closed, all but a small sinus, which remained open for some time. When last seen (in August), the wound was soundly healed; there was no sign of re-accumulation of the fluid.

Remarks (by Mr. Beck).—A somewhat similar case is one which was communicated to the Society of German Surgeons by the late Professor Hueter. The cyst lay upon the carotid sheath, and the artery itself was divided in removing it. The nature and origin of the tumour were doubtful. When first seen it was punctured, and clear fluid drawn off; a second puncture was attended by the same result; but on its filling again, some time after, a third tapping removed bloody fluid. In the present case the blood was found to be greatly diluted with serum on each tapping. The fluid drawn off at the first tapping contained but little fresh blood. Microscopic examination showed most of the corpuscles to be shrivelled. On the second tapping the fluid was darker in colour and of a brighter red, but still it did not coagulate. It is probable the cyst belonged to the class of serous cysts, and that the hæmorrhage was merely accidental, as, when it was laid open, there was no tendency to bleeding from the interior. The history that the cyst "came up in one night" was doubtless an error, and it is most probable that it was of congenital origin. Its sudden increase may have been due to the injury which caused the hæmorrhage. Although the patient did not remember any blow, he thought it likely he might have been struck on the shoulder while fencing.

CASE OF FRACTURE OF TWO LOWER RIBS—LACERATION OF KIDNEY—PROFUSE HÆMATURIA—RECOVERY.

(Under the care of Mr. A. E. BARKER.)

[Notes by Mr. R. W. LEEMING, Dresser to the Case.]

G. H., aged forty, a coachman, was admitted on August 17, under the following circumstances. At 3.30 p.m., while seated on the box of the carriage, the horses suddenly swerved, broke the pole, and threw him from his seat, first on to the back of one of the horses, and then under the carriage, which passed over the small of his back. At 5 p.m. he passed about a pint of deep-red-coloured urine, and was brought to the hospital at 9 p.m.

On admission, the walls of the abdomen were found to be tense and tender, the former more especially in the left iliac, and the latter in the left lumbar region, where the two lower ribs were found to be fractured and to crepitate readily. The flanks were both resonant, and the patient lay on the painful side. There was also fulness in the left flank from effusion of blood into the soft tissues. As no water had been passed since 5 p.m., a catheter was introduced at 11 p.m., and the urine drawn off was found to contain a large quantity of blood, which, on subsidence, formed a thick, dark deposit, slightly clotted; there was 3 per cent. of urea. Temperature 100·2° Fahr.; pulse 84, and small. Ice-bags were applied to the back and side over the region of the left kidney, and forty minims of ergot given. The diet consisted of iced milk. After the first night, patient passed his water naturally, but with some uneasiness, which, however, did not amount to pain. The quantity of blood was still large, forming the same thick deposit on standing. On the following day there was scarcely any change, but on the 19th the quantity of blood was greatly diminished, though the urine remained dark, with a thick sediment as before, and a slight trace of albumen and acid reaction.

August 20.—As the bowels had not been opened since admission an aperient was given. Milk diet as before.

24th.—Last trace of blood disappeared; urea 2·4 per cent.

26th.—Patient rapidly improved. Ice-bags discontinued.

28th.—Got up from his bed for the first time.

On September 7 patient left the hospital completely convalescent, except for a slight pain in the small of the back; urea 1·5 per cent. On October 9 he presented himself at the hospital quite recovered. The smallest quantity of urine passed in twenty-four hours was thirty-two ounces on August 24.

Remarks.—Mr. Barker remarked on this case, during examination at the bedside, that although the amount of laceration of the kidney must have been considerable, in view of the free hæmorrhage into the bladder, still there was no evidence that the peritoneal surface of the organ was torn by the effusion of blood into the abdominal cavity, and therefore, in the absence of any very extensive peri-renal effusion of blood (although there was manifestly some), it was fair to assume that the amount passed per urethram was a fair gauge of the actual amount lost. Now this, although large, did not appear to exceed what a strong man might lose with safety if not long continuous, and as the general

condition of the patient did not indicate that the loss to him was immediately dangerous, Mr. Barker thought that the case might be treated by internal remedies, backed up with the application of cold applied externally, at all events for a time. Had there been evidence of free bleeding into the abdominal cavity, on the one hand, or, on the other, should the treatment adopted fail to arrest the bleeding, he would feel fully justified in cutting down on the kidney with a view to dealing with it by ligature or excision.

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Medical Times and Gazette.

SATURDAY, OCTOBER 14, 1882.

ON SOME MORE INTRODUCTORIES.

We have seen how Mr. Marcus Beck, at University College, insisted on the value—or, rightly speaking, the necessity—of a scientific training to those who would practise medicine, and how clearly he set forth the principles of medical education as it should be. Dr. Sharkey also, in his address to the students at St. Thomas's, and Dr. Cayley, at the Middlesex Hospital, vindicated the claim of medicine to rank as a science, and impressed on their hearers the importance of studying it in a scientific spirit; and they, as well as Mr. Beck, spoke of the danger that threatens the progress of true medicine from the blind action of the anti-vivisectionists. Dr. Sharkey says, "What has really given medicine a claim to be placed among the sciences is the recognition of physiology as its basis; and what has given physiology itself precision is the experimental method of investigation"; and he would answer those who would suppress vivisection—the name they give to investigation by experiment—not "by quoting individual useful applications to medicine of facts which have been discovered entirely by vivisection," for these persons have very little or no knowledge of physiology or medicine, but by "pointing to the comparative precision which pervades the whole of modern physiology, and is being gradually introduced into practical medicine—a precision which we owe to experimental methods of research." We fear the anti-vivisectionists would be as obtuse to this method of meeting their ignorance and their prejudices as they have hitherto shown themselves to every other line of argument; but that certainly would not tell against the truth and the real strength of the reasoning. Dr. Sharkey then pointed out the advances made in pathology and diagnosis; and consequently in the treatment of disease. We have thrown down, he said, the idol of universal specifics, and we are aiming at the discovery by observation and experiment of the physiological action of substances which, their powers having been thus arrived at, can be used in therapeutics with scientific, or something approaching to scientific, precision. We cannot share in Dr. Sharkey's happy belief that "the day has long gone by when systems of medicine were admissible"; but nothing could be better than his concluding advice to students of medicine, at school or in practice: "There is but one system (of medicine)—the scientific—which rests upon observation and experiment, and upon the application of science in general as a guide to the knowledge and treatment of disease; therefore avoid being led astray by the seductive theories of any sect whatsoever. Be neither homœopaths, nor allopaths, nor antipaths, nor any other 'paths'; but scientific medical men." Dr. Cayley, when warning the students against "being led at the commencement of their studies, by the clamour around us, into believing that an experimental science can be advanced otherwise than by experiment," stated, in clear and temperate language, the argument as he understands it to be, in the main, against experimental research in medicine; and showed that if these "well-meaning people"—the anti-vivisectionists—could have their way, the amount of pain and suffering of the higher animals in the universe would be increased instead of being diminished, and "in the battle of life the advantage would be given to bacteria and micrococci." He earnestly advised the students to follow carefully and diligently the course of study laid down for them; recommended them to join and frequent the meetings of the "Students' Medical Society"; and spoke of the spirit in which the profession of medicine ought to be practised, quoting the oath which Hippocrates two-and-twenty centuries ago required of those whom he initiated into the profession. "Creeds change, rites pass, no altar standeth whole;" "but," Dr. Cayley said, "the divine idea which underlies these outward forms remains imperishable, and if upon us the light shines more brightly and through a clearer medium, let us not fall short of the standard laid down by the great pagan physician." Dr. De Havilland Hall, at Westminster Hospital, also exhorted students to act up to the spirit of the Hippocratic oath, which he read to them *in extenso*. He pointed out the advantages that a small medical school possesses over a large one in making possible a greater amount of personal intercourse between the staff and the students, and in much more surely giving to all the latter opportunities for dressing, clerking, and direct bedside instruction. He confessed that his own experience as a student had made him a believer in the advantages of lectures, and that he was in favour of enforcing attendance at them; and he enjoined upon students the importance of attention to their physical health. Dr. Herbert Watney, at St. George's Hospital, while insisting on the value of a scientific education, and the importance of the acquisition of the scientific method of working, said that it was a question whether the pendulum had not swung a little too far in the direction of study of the sciences. Had not the examination, he pertinently asked, in the minor details of anatomy, and the teaching of these details, been carried farther than is necessary? and is there not a physiology whose devotees seem to think more of the instruments or the specimens than of the valuable observations obtainable by such means? He described well the respective claims of the scientific and the practical in medical education. The student must not be tempted to devote too much time to the study of the sciences; "they are the sources of much

knowledge, but they are not the knowledge itself," and the study of the sciences bearing on medicine will not alone enable a man to become a safe guide in surgery or medicine. We regret that we have not been able to find space for the publication of the addresses delivered at the opening of the Provincial Schools, but the abstract that we have been able to give of one of them suffices to show that in style and matter they certainly do not fall below the standard of the London addresses. The Professor of Pathology at Queen's College, Birmingham, spoke of the gradual growth and development of the Birmingham Medical School, and looked forward with desire and hope to the day when there may be a University of Birmingham. We are not able to sympathise with him. It is very natural to wish that the city and school of one's life-work should be magnified, and the spirit of the time seems to tend towards magnifying schools into colleges, and colleges into universities; but we think a multiplication of universities—that is, of centres for conferring degrees in arts, science, medicine, etc.—would be disastrous to the cause of general education, or, to say the least, would be a dangerous experiment. It would almost certainly, so long as human nature remains much what it is, lead to a downward competition for undergraduates. Dr. Rickards entered into the still unsettled question as to the respective values of a classical education and the teaching of natural science as the more reliable and valuable means of mental training. We do not agree with his (comparative) depreciation of classical education; but the dispute is one that is being worked out by experiment, and the result will in all probability be generally a compromise, science-training becoming a part of general education, but taken up after a good foundation of the old kind.

Taken together, the introductory addresses of this year have attained a very good standard of excellence, and have been well calculated to serve the purposes for which they were instituted. It is said that our leading daily paper could not see in them anything beyond a collection of barren platitudes; but it is to be remembered for whom they were intended. Things may very possibly seem dreary platitudes to the very superior beings who write the leading articles in the *Times*, or even to the educated public, and yet be interesting, and even new and instructive, to young medical students.

HÆMOGLOBINURIA.

It is now some years since the paroxysmal and non-toxic form of this disease was first observed and described; but while much has since been done in the way of rendering our knowledge of it more complete, there still remains considerable uncertainty on many points regarding the disease. This uncertainty can be resolved only by the careful record and collation of individual cases, and therefore no excuse need be offered for bringing together the results of three cases recently recorded.

The most important of these is undoubtedly that placed on record by Dr. Fleischer (*Berl. Klin. Wochenschrift*, 1881, No. 47). The patient was a young soldier, aged twenty-three, of good family history, and good general health. In the beginning of the previous year, after a severe march, he noticed for the first time that his urine was bloody in colour. The symptom was unaccompanied by rigors, sweating, or pain in the region of the kidneys. By the evening his urine was again clear. To sum up the case: Dr. Fleischer found that he could excite an attack of hæmoglobinuria in this patient with the most absolute certainty by simply directing him to walk for two hours continuously. After an hour's walking the urine would still be normal, but three-quarters of an hour later it would contain both albumen and hæmoglobin. The albumen and the hæmoglobin came together, and, after twenty-four hours at the longest, disappeared together. Heller's blood-test and the spectroscopic lines proved the presence of hæmoglobin. Neither blood corpuscles nor casts were at any time discovered in the urine. The patient felt somewhat out of sorts during the attack, with giddiness and slight loss of appetite. To eliminate various elements in the case, Dr. Fleischer subjected the patient to certain experiments. First, to ascertain if the cause lay simply in the physical exertion of walking, he set him to severe, but stationary, labour, with the result that after two hours the urine remained perfectly normal. Heat and cold, contrary to what is generally held, seemed to produce no effect. A prolonged warm bath, with a large dose of pilocarpin, had as little effect on the urine as a prolonged cold bath. Nor, apparently, was special activity of the kidneys a factor of the case, for seven glasses of beer drunk conscientiously in the same number of hours produced no abnormal constituents in the urine. Diminution of the alkalinity of the blood, by a drachm and a half of lactic acid, and by a drachm and a half of phosphoric acid, taken in the course of a day, was likewise without effect, as was also a dose of three drachms of bicarbonate of soda. The amount of urea excreted during the attack was considerably diminished; but this must be put down to diminished absorption, as there was no after-increase in the amount excreted to indicate an accumulation of urea in the system. Before an experiment, a blister was applied on the chest. During the first hour the blister did not rise, but in the course of the second hour it rose, and the fluid of the blister, although yellow in colour, contained hæmoglobin. The case is evidently an important one, showing that cold is not so universally the cause as has hitherto been supposed, and strengthening considerably the belief that hæmoglobinuria is not a renal, but a general, blood disease.

The second case is recorded by Dr. Scribing (*Deutsche Med. Woch.*, 1882, No. 1). The patient, a wheelwright, aged twenty-nine, noticed in 1876, after a severe march during his military service, that his urine was bloody in colour. During the previous months he had contracted a chancre, which, however, healed without medical treatment. After this he noticed his complexion began to get paler and yellower than before. The hæmoglobinuria came on subsequently, generally in the morning, after severe labour or mental excitement. There was neither rigor nor sweating. The splenic region was extremely tender, and there was considerable dyspnœa and palpitation, with sometimes musc̈æ volitantes, tinnitus aurium, giddiness, and weariness. After the attack the region of the kidney was tender. Cold seemed to have no effect whatever in producing an attack. The presence of hæmoglobin was proved by Heller's test and by the spectroscope. The microscope showed a few blood-discs with hyaline and epithelial casts and masses of hæmatoidin. Once when the attack occurred at midday the serum of the blood was examined and found to contain hæmoglobin. As to treatment, large doses of iron taken by the patient on his own account distinctly increased the attacks in number and severity. Quinine and general tonic treatment having failed, anti-syphilitic treatment was instituted, and under this the patient improved considerably.

The third case is somewhat meagrely recorded by Dr. Otto (*Berl. Klin. Woch.*, 1882, No. 39). The patient, aged fifty, was the subject of melancholia, and during an attack of that disease had complete retention of urine, which, on being drawn off with the catheter, was found to be bloody in colour and to contain a large amount of albumen and hæmoglobin. The microscope showed a few blood-discs with very numerous hyaline casts. During the day urine was passed naturally and got gradually clearer. When the patient's mental con-

dition bettered, he said he had had attacks of blood-coloured urine ever since he had served in the Franco-German War The attack always commenced with a rigor, and was distinctly associated, he believed, with exposure to cold and wet. Soon after the attack recorded the patient died of an intercurrent disease, the urine remaining normal in colour till death. The left kidney was found twice as large as the right, which was of normal size. Both kidneys are said to have been normal in structure, but it is not stated if they were examined microscopically.

We may note, in conclusion, a possible source of fallacy indicated by Dr. Neusser (*Wien. Akad. Sitzungsber.*, 1881, December 3), who has found in the urine of two patients a colouring matter which gives exactly the same spectroscopic lines as hæmoglobin, but which, giving a negative result with Heller's and with the guaiacum test, is not hæmoglobin. In the one patient, a case of pleuritic effusion, it was not associated with albumen; in the other, a case of tubercular phthisis with chronic Bright's disease, it was. Dr. Neusser believes that the substance is allied to the hæmato-porphyrin of Hoppe-Seyler, but could not procure enough for analysis.

THE ARMY MEDICAL DEPARTMENT IN EGYPT.

SOME of the war correspondents of our daily papers—partly, probably, from the easy credulity that is born of ignorance, partly from a professional desire to send home "interesting," and if possible sensational, intelligence; and partly from want of time and opportunity to sift and test the information they receive—have sent home many painful statements regarding the arrangements made by the army medical officers in Egypt for the management of the sick and wounded. Some of the stories set afloat were wildly improbable, such as that the removal of an arm at the shoulder-joint had been performed without chloroform; that amputations had been done with carving-knives; and that at one time there was a great deficiency of medicines as well as instruments; but these stories appear to have been believed as readily as were the moderate statements regarding the discomforts and difficulties that had arisen from the want of transport. It is therefore well that Surgeon-General Maclean, the well-known Professor of Military Medicine at Netley, has written to the *Times*, disproving absolutely all the most grave of the charges brought against the Medical Service, and recommending the public to wait till investigation has shown who was to blame for the shortcomings that undoubtedly did occur, instead of proceeding to hang the medical staff, and then to inquire who ought to have been hung. As to the amputation-without-chloroform story, that has been utterly demolished. Brigade-Surgeon Veale, who had charge of the base hospital at Ismailia, is now in hospital at Netley, having been invalided home—from overwork—just lately, and he has officially stated that he was present at the particular operation specified in the war correspondent's story, that he himself provided a large bottle of chloroform to the surgeon whose duty it was to administer the anæsthetic, and that the patient was under its influence. We believe all the charges of inefficiency, mal-administration, etc., against the Army Medical Service in Egypt will, on inquiry, break down as completely as this sensational story. The Service have had to contend with very great difficulties, but those difficulties were not of their own making. The medical equipment of the expedition was most complete, but some clumsiness or deficiency of organisation, added to the exigencies of military movements, led to shortcomings for which the medical officers were in no degree responsible. Transport, both as to quantity and as to kind suitable to the land—i.e., to a desert of sand,—was grievously deficient at Ismailia, and there is no doubt that "combatant" officers would claim and get the means of transport available before the Medical Department. The hospital-ship—the *Carthage*—which contained all the material for the chief hospital at the base, was detained at Alexandria for some time after the troops had been sent on to Ismailia; and, consequently, until her arrival and the disembarkation of hospital fittings, medical stores, and comforts for the sick and wounded, the medical officers on duty at Ismailia and Kassassin had but the material of one field-hospital for supplying the wants of the sick and wounded, who came into hospital at the rate of sixty or seventy daily. But this, again—though such a state of things ought not to be possible,—was not in any way the fault of the Medical Service. The "palace" handed over to the medical officers for a base-hospital was "a large oblong, two-storeyed building, absolutely bare of furniture, beds, utensils, or stores"; but owing to the energy and devotion of the Army Hospital Corps, so much was done that it may, we believe, be confidently stated that at no time was there any real deficiency in necessaries. Hardships there must always be during war, and sometimes very great hardships; but we do not see any excuse for some of the shortcomings to which we have referred. There was, as it happened, no real want of drugs and other medical necessaries, but we have it on excellent authority that our medical officers were at one time not a little indebted to their brethren of the Indian Medical Service for much-needed assistance. It appears to us that the initial fault in the arrangements is to be found at home. Why should not the medical stores, of all kinds, be shipped in the same vessels with the regiment or corps for which they are intended? They seem to be able to manage this in Her Majesty's Indian Service, and with excellent results. Why should it not be possible at home? We believe that were the Army Medical Department asked why these difficulties and serious shortcomings have occurred, the answer would be—"The Admiralty won't let us ship our own supplies, etc.," or something to that effect. The whole matter calls for investigation, and we believe the Army Medical Department need not fear the most strict inquiry. It cannot be denied, however, that there appears to be among the "combatant" officers a great readiness, if not eagerness, to blame "the doctors" for all that went wrong. The *Times* of the 12th inst. publishes a letter from its "Woolwich Correspondent," in which the medical officers are made responsible for the dirtiness and other evils that it is alleged have obtained in vessels bringing our sick and wounded home from Egypt! Troopships, we are told, are, as a rule, models of cleanliness and good order, for the men are under the strictest military discipline. But "the exact converse has been the general experience on board the ships which have brought home the sick and wounded, with only one or two exceptions." And this is because "medical officers, instead of regimental officers, have the control, which has often come to them as a new experience, and the few men of the Army Hospital Corps on board each ship, although they have some military training, have too much to do in the way of nursing to enforce a soldierly discipline." The consequences of the medical officers and their patients not being under the direct rule and control of a combatant officer have been "filthy decks, mess-tables begrimed with dirt, and unsuitable and ill-prepared food"! There have not been wanting, before this, symptoms of an increasing feeling of jealousy on the part of combatant officers, as a body, since medical officers were given command of the Army Hospital Corps; and this, we suspect, accounts in a large degree for many of the wonderful and sometimes mischievous stories of war correspondents.

THE WEEK

TOPICS OF THE DAY.

THERE seems to be some hope that the attention recently called to the defective condition of bakehouses in this country will have the effect of bringing about some radical improvements in these places. A most important feature in the case is the action taken recently by the Amalgamated Union of Bakers. At a meeting of the Trades Union Congress at Manchester, a resolution asking the Parliamentary Committee of the Congress to use their influence with Government to promote a measure for the prevention of underground bakehouses was passed, with the addition "and that the same be inspected as factories, workshops, and mines are." In addition to the passing of this resolution, it was considered advisable that the London District Board should seek the assistance of the Parliamentary Committee in getting up a memorial to be presented to the Home Secretary, and that the deputation presenting it should suggest that bakehouses be licensed as are slaughter-houses. The London Board of the Amalgamated Union of Bakers have endorsed the resolution above referred to; and at a recent meeting a long discussion took place with respect to asking the Government to license bakehouses, so as to insure their proper construction and sanitary condition; and have appointed a sub-committee to report on the advisability of joining in memorialising Sir William Harcourt and in recommending that bakehouses be placed under Government licence and inspection.

We have no good reason for supposing that the employment of unqualified assistants to carry on fully the work of medical men is really increasing in the poorer neighbourhoods of the metropolis. But it is certain that of late this practice has been very prominently brought before the public by the metropolitan coroners. At a recent inquest held by Mr. E. A. Carttar at Deptford, on the body of a child two years and a half old, the evidence showed that the parents had called in a person living in Amersham Vale, who proved to be the unqualified assistant of another person who was said to be a doctor of medicine of the United States of America. Mr. Kelsey, who had been called in when the child was dying, deposed that he found it suffering from inflammation of the lungs; it was a critical case, but he believed that life might have been saved had skilled advice been called in earlier, but that improper treatment had been going on for a week before the parents sought his assistance. The coroner, in summing up the evidence, observed that the law was very unsatisfactory, requiring, as it did, medical men to be properly qualified, but not providing any penalty for unqualified men who practised;—he should have added, unless they pretended to be qualified. The jury, after deliberating some time in private, returned a verdict in accordance with the medical evidence, adding that they considered the fatal result was in some degree due to the treatment adopted by the unqualified assistant; and they held his employer in a measure responsible for allowing an unqualified man to prescribe in a critical case.

The prizes obtained during the past session were recently distributed to the students at the rooms of the Pharmaceutical Society of Great Britain, in Bloomsbury-square, by Mr. Michael Carteighe, President of the Society, in the presence of a large assemblage. Professors Redwood, Bentley, and Attfield having made encouraging reports of the work which had been accomplished by the pupils in their respective classes, Mr. Joseph Ince, F.L.S., F.C.S., opened the new session with an address. He commented upon the fact that fifty years ago pharmacy was not represented by any corporate body, and had no recognised system of training or education. Now, however, those deficiencies had been met, and a school had arisen which could boast of the services of men like Pereira, Todd, Thomson, and Fownes, and of the eminent professors who directed its curriculum at the present time. As to class-examinations, he knew that a dread of them prevailed; but they were essential to the progress of the student, would enable him to form a just estimate of his position, and help him to surmount the nervousness incident to the final examinations imposed by the Legislature.

A short time since a vigorous effort was made to recruit the funds of the London Fever Hospital in the Liverpool-road, which had fallen to a very low ebb, and a certain sum of money was collected; but it is now stated that the resources of this valuable institution have recently been taxed to the utmost by a serious outbreak of scarlet fever in the district. Every available bed in the Hospital is now in use, and unless additional accommodation is promptly provided, the house directors, much against their wish, will have to begin refusing admittance to new patients.

The introductory lecture of the winter session of the Royal Veterinary College was delivered this year by Professor Axe, in the lecture theatre of the College, under the presidency of General Burnaby, M.P. Professor Axe congratulated the students upon the fact that, owing to the exertions which had from time to time been put forth by the governing body of the College, it was now one of the foremost veterinary schools in Europe. He urged the indispensability of comparative pathology as an element in the evolution of human medicine, and as a part of the education of those who aspired to the healing art as applicable alike to human beings and dumb animals; contending, also, that veterinary science must become an important part of the sanitary police arrangements of the country, if only because it would be powerful to prevent the present use of tuberculous oxen for breeding purposes, and the sale of tuberculous flesh for food. General Burnaby afterwards, in a short address, remarked on the fact that of the 2480 registered veterinary surgeons practising in various parts of the world, no fewer than 1520 had been educated in that College.

The statistics of the latest census of France, taken at the end of last year, show results which must be pronounced grave when the future progress of that country is taken into consideration. The fact that the whole of France has experienced within five years only an increase of 766,260 inhabitants, represents practically an almost stationary condition of population. But it becomes still more unsatisfactory when it is considered that the increase, small as it is, has to be credited almost entirely to five-sevenths of the large towns, and that the rural population is distinctly retrograding. Of the 87 departments, 34 (mostly agricultural) show a decrease, the 53 which figure as increasing containing more or less manufacturing or commercial centres, such as Nord, with its iron and coal works and textile factories, in which the increase is 83,674; Seine (containing Paris), 388,489; Rhône (Lyons), 36,339; Bouches-du-Rhône (Marseilles), 32,649; Aude (Carcassonne woollen factories), 27,077; Alpes Maritimes (Nice and Mentone), 23,017. Some of the decreases in the population of departments are very considerable, such as Vaucluse, with the manufacturing town of Avignon as its centre, which has declined in the five years to the amount of 11,554 out of a total population of 255,703 in 1876. Marche is still worse, for with its naval stations and ports of Cherbourg and Grenville, it has declined by 13,533. In forty-seven of the principal towns one-sixth of the whole of the French population is congregated, which, for moral, sanitary, or physical reasons, is not a favourable outlook. Paris has now a population of 2,269,023, or an increase of 280,217; Marseilles numbers 360,000, with an increase of 41,231; Lyons,

376,013, with an increase of 33,798—a rate of about 10 per cent. in each instance. As a rule, the textile centres, such as Rouen, Lille, and Roubaix, show the most satisfactory rates of increase.

A somewhat singular instance of the extent to which the habit of taking chloroform may be indulged in was made public at an inquest recently held by Mr. Carttar, the West Kent Coroner, on the body of Joseph Quinlan, chemist, of New Cross-road, who had been poisoned by prussic acid. The evidence of Dr. Gordon showed that the deceased had been in the habit of taking chloroform to a dangerous extent—enough at one time to kill several ordinary persons; in fact, he believed it would be difficult to find a parallel case. Just before his death deceased had taken some hydrocyanic acid, apparently as an antidote to the chloroform, and not, as it would seem, with any intention of committing suicide.

SCARLET FEVER IN LONDON.

THE outbreak of scarlet fever in the metropolis is reported to be rapidly spreading. The authority of the Local Government Board having been obtained, the Asylums Board have opened the Fulham Hospital for the reception of fever cases. The authorities of the West-end parishes desired to restrict the admission of fever patients into Fulham Hospital to cases arising within a mile of the Hospital, according to the terms of the small-pox injunction; but the Asylums Managers reply that the injunction applied to small-pox cases only, and they have no power to enlarge it. The Managers hope to have authority to open Hampstead Hospital also. On Tuesday, the 10th inst., there were 593 cases of fever, principally scarlet fever, in the Asylums Board's hospitals.

OPHTHALMIA IN THE EXPEDITIONARY FORCE IN EGYPT.

IT is reported from Cairo that our troops have narrowly missed a serious epidemic of ophthalmia. Other diseases that have affected the army have been generally mild in type, though cases of dysentery, diarrhœa, sunstroke, etc., have been numerous. Ophthalmia, in the form which it has taken, has not, as a rule, been severe, but all the conditions under which the troops have been living have been so favourable to its development, and the disease spreads so easily, and is so liable to become aggravated in form, that there was a time when fears were entertained that it would cause serious and extensive injury. The danger appears to have passed away; the sanitary precautions taken under the advice of Deputy Surgeon-General Marston, the sanitary officer of the expedition, having been at least partially successful. A correspondent of one of the daily papers remarks that in Cairo every second or third person met with in the streets appears either to have lost an eye, or to be in process of losing one. The same correspondent suggests that if an army of occupation is to be left in Egypt for any time, some medical men should be sent out whose speciality is the treatment of the eye. The suggestion would not, perhaps, be very palatable to the officers of the Army Medical Department, and the correspondent admits that the severity of the outbreak of ophthalmia has been checked, although there were occasions when as many as sixty fresh cases were reported in a single day. But should it seem well to carry out the suggestion, it will not be the first time that our military brethren have been assisted in their arduous work by civilian practitioners. We pointed out, on August 26, in an article on Egyptian Ophthalmia, the causes of the disease, and why it is so rife in Egypt, and the very great need for the utmost care being taken lest it should be brought to England, with the disastrous results that followed the return of our troops in 1801. There is, moreover, much to be learnt yet about Egyptian ophthalmia, so that the employment of a few skilled ophthalmologists with our army of occupation would be fully justifiable, to say the least.

LESIONS OF THE TEETH IN LOCOMOTOR ATAXY.

AT the meeting of the French Association for the Advancement of Science, on August 30, a communication was made by M. Th. David upon lesions of the teeth found in locomotor ataxy. The paper was based upon the observation of a single case, and the following are the most important of the conclusions arrived at from an attentive study of it. The alteration consisted of a rapid decay of the anterior part of the crown of almost all the teeth. The altered substance assumed the consistence of touchwood and a reddish colour. The enamel still retained its polish, but not its hardness. Beneath those parts the pulp had produced a new layer of secondary dentine, and in most of the front teeth the pulp-cavity was filled up. These alterations had nothing in common with caries, and must be referred to nutritive disturbance resulting from the lesion of the central nervous system. The changes are analogous to those which have already been observed to take place in the nails in the course of locomotor ataxy; they would thus establish a pathological relationship between organs already connected by a common epithelial origin. Locally, these alterations recognise for their immediate cause a functional disturbance or a lesion of the dental pulp. The atrophy which has been shown to exist would be quite comparable to that which is observed in the eye under similar circumstances. Whence the final conclusion that we must attribute to the dental pulp the physiological significance of a sensory organ.

THE PARIS WEEKLY RETURN.

THE number of deaths for the thirty-ninth week of 1882, terminating September 28, was 941 (516 males and 425 females), and among these there were from typhoid fever 57, small-pox 3, measles 6, scarlatina 6, pertussis 1, diphtheria and croup 19, erysipelas 5, and puerperal infections 5. There were also 45 from acute and tubercular meningitis, 194 from phthisis, 19 from acute bronchitis, 38 from pneumonia, 106 from infantile athrepsia (41 of the infants having been wholly or partially suckled), and 31 violent deaths (26 males and 5 females). The number of deaths is below the mean of the four preceding weeks. There has been a great diminution in the number of deaths from diphtheria, viz., from 40 to 19; while those from typhoid were 53, in place of 57. The admissions for the latter have diminished from 233 to 213, and from diphtheria from 34 to 29; while there have been only 14 admissions for small-pox. Comparison of the present quarter of 1882—viz., the thirteen weeks, twenty-seventh to thirty-ninth—with the same quarter of 1881 is greatly to the advantage of the former. Thus, while in that of 1881 there were 13,393 births and 13,004 deaths, in that of 1882 there were 15,515 births and 12,609 deaths. Comparing the principal epidemic diseases, we find that in the quarter of 1881 there were 477 deaths from typhoid fever, 221 from small-pox, 223 from measles, 162 from scarlatina, 523 from diphtheria, and 71 from puerperal infections; and in the quarter of 1882, 738 from typhoid fever, 120 from small-pox, 175 from measles, 40 from scarlatina, 433 from diphtheria, and 70 from puerperal infections. So that, with the exception of typhoid fever, infectious diseases have caused fewer sacrifices in 1882, the differences being especially notable for small-pox and scarlatina; but the diminution in the deaths from diphtheria is also of importance, as interrupting a progression that has always been increasing for several years. The births for

the week amounted to 1218, viz., 598 males (438 legitimate and 160 illegitimate) and 620 females (466 legitimate and 154 illegitimate): 78 infants were either born dead or died within twenty-four hours, viz., 47 males (32 legitimate and 15 illegitimate) and 31 females (11 legitimate and 20 illegitimate).

RARE COMPLICATIONS OF CHRONIC GONORRHŒA IN THE MALE.

Dr. Vagda has written on this subject in the last two numbers of the *Wiener Med. Woch.* (37 and 38). The essence of what he has to say comes to this: Owing to the prolonged irritation of the chronic discharge, the epithelial and connective tissues may get hypertrophied, so that the former may become from four to twelve times its normal thickness, whilst the latter may form outgrowths, which in the early stage are non-vascular. The neoplastic epithelial formation, by pressure of its own elements *inter se*, may lead to the total destruction of the normal cylindrical layer of cells. This overgrowth of epithelia may accumulate in clumps anywhere, but has a predilection for the hypertrophied papillæ and warts, where it mounts their summits and descends into the clefts and fissures between them. The warts may be found in any part of the urethra, and are very small, conical, brush-shaped, or clavate growths, which are either enlarged normal papillæ or are outgrowths from the newly formed connective tissue. Should these warty excrescences themselves begin to grow, they may give rise to secondary offshoots and become vascular, and then are analogous to the gonorrhœal warts so frequently seen on the prepuce or glans penis and just within the external orifice of the urethra.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

The following gentlemen were elected on Friday, October 6, officers of the Society for the ensuing year:—*President:* G. H. Cable, M.R.C.S. *Vice-Presidents:* A. Forsyth, M.D.; John Marshall, M.R.C.S. *Council:* A. L. Bowen, M.R.C.S.; J. E. Burroughs, M.R.C.S.; F. Carson Fisher, B.A., M.D.; J. Hammersley, M.R.C.S.; C. H. Hartt, L.R.C.S.I.; F. Moon, M.B.; J. P. Purvis, M.R.C.S. *Treasurer:* Prior Purvis, M.D. *Secretary:* H. W. Roberts, M.R.C.S. *Librarian:* J. B. Saundry, M.D.

ELECTRICITY AS A CARDIAC STIMULANT.

A fact of the greatest importance to us, practically—especially with reference to the treatment of threatening death by chloroform—has just been determined by Professor von Ziemssen. In investigating the effect of electricity upon the heart, he has discovered that the induced current has no influence whatever upon the frequency or force of the cardiac contractions, whilst the continuous or battery current most distinctly affects them. Von Ziemssen's observations were made upon a woman of forty-six, who had lost the greater part of the præcordial structures by operation for ecchondroma four years previously, and whose heart was found lying more or less exposed at the bottom of a large depression in the wall of the chest. Through the tissue of the scar and integuments there could easily be determined the root of the pulmonary artery, the left auricle and both ventricles, the descending branch of the left coronary artery, and the left phrenic nerve, as well as the part of the diaphragm upon which the whole lay. Many tracings of the movements of the heart under different conditions were first made, and a careful record was obtained of the effect of physical disturbance of the various parts of the cardiac surface. The influence of the different forms of electricity was then thoroughly investigated, cardiographic tracings being taken simultaneously. To us the most interesting fact determined was the complete failure of the faradic current to alter the action of the heart, or to disturb in any way its sensibility, whilst the direct battery current produced a marked effect. A distinct contraction of both the ventricles followed each individual galvanic application when the current was powerful, each cathodal closure raising the frequency from 80 to 140 per minute; whilst, as the result of a strong galvanic current, uninterrupted in any way, the frequency rose to two or three times the normal, without disturbance of the rhythm. A sense of tearing was felt at the same time behind the sternum, and certain "feelings" in the left arm. It would thus appear that in using the ordinary induced current or faradic battery (which, in nine cases out of ten, is the only instrument of the kind in the possession of the practitioner) for purposes of resuscitation, we are trusting to an utterly valueless method of treatment, and losing precious moments into the bargain; whilst the continuous current would probably produce a powerfully stimulating effect upon the heart. In case the conditions might be disturbed by the unnatural condition of the heart in his patient, von Ziemssen repeated the experiment upon the sound parts of her thorax, sending the currents through the chest. He further repeated the observation in other patients, and found that in both instances the results were the same. The details of the series of investigations will be found in the *Deutsches Archiv f. Klin. Medicin*, xxx. S. 270.

DIPHTHERIA AT PORTSMOUTH IN 1881.

The report of the Medical Officer of Health (Dr. W. J. Sykes) on the health of the borough of Portsmouth for the year 1881 records that the death-rate for this period—19·59 per 1000—is a trifle over the average of the ten years 1871-80, and may be pronounced satisfactory when the severe epidemic of diphtheria which has prevailed during the past twelve months is taken into consideration. From this disease no less than 205 deaths were registered in 1881, and such a serious epidemic of the malady seems, Dr. Sykes observes, to be unprecedented in the annals of Portsmouth; for though since 1861 (the earliest date of which there is any official record) there has never been a year without more or less mortality from diphtheria, the average mortality for the twenty years 1861-80 was only 15·3. The origin of the epidemic is enveloped in obscurity; the report explains that there are no special insanitary conditions appertaining to the neighbourhood in which it first appeared, nor does it differ in its general conditions and surroundings from a very large portion of the borough. Both the milk- and the water-supply were carefully inquired into, but nothing was elicited which pointed to their being concerned in the spread of the epidemic. Perhaps, Dr. Sykes remarks, any attempt to explain its origin is unnecessary, since the disease, as indicated by the returns of the Registrar, is seldom absent from the borough, and in those short periods in which no death from it is recorded, there is, in all probability, a continuous succession of non-fatal cases. The spread of the disease was considered to be largely due to the natural carelessness and curiosity of neighbours visiting infected houses, and taking the disease home to their own children; also to the congregating of large bodies of children in the Board schools. Dr. Sykes made personal application to the School Board to have certain schools closed for a time, but unfortunately, as he remarks, he failed to convince the members of the necessity for this action. In two cases, however, the schools were allowed to remain closed for some weeks after the Christmas holidays, making an interval of eight or nine weeks, with the effect of causing diphtheria to gradually but certainly disappear from the surrounding neighbourhoods. One of the

most serious obstacles experienced by the Sanitary Authority in coping with the epidemic was the inability to obtain information of fresh cases of the disease; and, regarding the matter from a medical officer of health's point of view, Dr. Sykes urges the Authority to follow the example of other large towns, and initiate a Bill for the compulsory notification of all cases of infectious disease in the borough of Portsmouth.

OCULAR CHANGES IN HEPATIC DISEASE.

Hæmorrhages into the retina have been found in catarrhal jaundice, gall-stones, carcinoma, cirrhosis, abscess, acute atrophy, phosphorus-poisoning, dropsy of the gall-bladder, and in pneumonia accompanied by icterus. Such extravasations are by no means always of bad omen, seeing that they may accompany a harmless catarrh provided this be attended by jaundice. In a case of acute yellow atrophy due to phosphorus-poisoning, Litten (*Wiener Med. Woch.*, No. 39) found, by the side of multiple fresh hæmorrhages into both retinæ, certain white areas situate in the granular layer, which microscopically showed fatty degeneration with tufts of tyrosin and granular spheres (? leucin). The blood capillaries had undergone marked fatty metamorphosis. In two cases of atrophic cirrhosis, Litten observed simultaneous pigmentary degeneration of the retina, which in one instance had developed after the liver disease had already been of long standing, whilst in the other case it was found in the course of the first year. The formation of pigment may extend very rapidly. Hemeralopia (night-blindness) sometimes accompanied a hypertrophic or atrophic hepatic cirrhosis without any sign of organic change in the structures of the eye. Immediately after the tapping of a considerable amount of ascites a neuro-retinitis developed itself, with slight swelling of the optic disc and exudation into the tissues and around the vessels.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES IN LIVERPOOL.

After a very full discussion for two days of the question of compulsory notification of infectious disease, the Liverpool Health Committee have, by the casting vote of the chairman, carried the following resolution:—"That it be recommended to the Council to apply to Parliament in the next session for an Act to enable them to require the compulsory notification of infectious disease."

THE REPORT ON THE HEALTH OF BIRMINGHAM FOR 1881.

In submitting his annual report on the health of the borough of Birmingham for the year 1881, Dr. Alfred Hill, the medical officer appointed by the sanitary authorities, has the satisfaction of announcing that the improvement in the health of the borough reported last year has still continued, as shown in a diminished general and zymotic death-rate. In 1880 the death-rate was lower than it had been in any of the preceding fifteen years, and, as that for 1881 is still more favourable, it follows that the mortality is less than in any of the previous years so far back as 1865, when statistics available for comparison commenced. The conditions which have principally contributed to such a satisfactory state of things are, Dr. Hill thinks, the non-occurrence of any serious prevalence of small-pox, scarlet fever, or measles; the absence of distress, on the one hand, or of a too flourishing state of trade, leading to intemperance and excess, on the other; the cheapness of the prime necessaries of life; the coolness of the latter part of the summer, which was unfavourable to the excessive development of diarrhœa; and last, but not least, the sanitary work actively prosecuted by the Corporation. Under this head the report mentions that the old, crowded, dirty, ill-ventilated class of houses has been greatly diminished during the past year by the progress of the improvement scheme under the Artisans' Dwellings Act, the formation of a new street, and the demolitions effected for the purpose of providing for the extension of the London and North-Western Railway Station. The removal of such unhealthy property, and the existence in its stead of better buildings and comparatively open spaces, cannot fail, Dr. Hill thinks, to contribute a considerable share to the general results of sanitary work. We cannot close our notice without remarking that, as usual, the report of Dr. Hill bears testimony to the thoroughness with which he carries out the many important duties entrusted to his charge, in the capacity of health officer for so important a town as Birmingham.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

At a meeting of this Society, held on the 6th inst. in the Faculty Hall, St. Vincent-street, the following gentlemen were elected office-bearers for the session 1882-83:—*President*: Dr. W. T. Gairdner. *Vice-Presidents*: Dr. Robert Grieve, Dr. Alex. Robertson. *Council*: Dr. George Mather, Dr. H. C. Cameron, Dr. Robert Forrest, Dr. Lapraik, Dr. D. Maclean, Dr. J. C. Woodburn, Dr. William Whitelaw (Kirkintilloch), Dr. W. A. Wilson (Greenock). *Secretaries*: Dr. W. L. Reid, Dr. J. W. Anderson. *Treasurer*: Dr. Hugh Thomson.

A MODIFIED METHOD OF CÆSARIAN SECTION.

Professor Kehrer, of Heidelberg, contributes a paper to the last number of the *Archiv für Gynäkologie*, in which he advocates some changes in the method of performing Cæsarian section. The question to be solved, he says, is this: to find a method of securely and permanently closing the uterine wound, and to prevent the uterine secretions from reaching the peritoneal cavity. Splitting up this problem into its component parts, he propounds the following desiderata:—1. To find the place in which the borders of the uterine wound will be the least inclined to gape. 2. To find a suture that can be relied upon. 3. During the operation to keep every kind of infection from the wound and the abdominal cavity; and afterwards to promote the speedy removal and the disinfection of peritoneal exudations and of the lochia. These wants Dr. Kehrer proposes to meet as follows:—1. A transverse incision anteriorly at the level of the os internum. 2. A double uterine suture, muscle and peritoneum being sewn separately. 3. Strict Listerian precautions during the operation, drainage of the abdominal cavity, irrigation, and possibly also drainage of the genital canal during the lying-in period. The transverse uterine incision the author thinks has the following advantages:—The wound gapes less; the incision through the abdominal walls need not be so long as in the old method; the placenta is only exceptionally inserted at the level of the os internum; the fœtal head is likely to be the part presenting in the wound, and therefore the part first extracted—a circumstance which is to the advantage of the child; and the peritoneum is in this region more loosely connected with the muscular tissue of the uterus, and can therefore be more easily sutured separately. The objections that the author thinks may be made to it are—1. That it does not give room for the passage of the child, to which he replies, that the time to do the operation is when the cervix is nearly fully dilated. 2. That an incision in this part opens large veins. To this he answers, that the hæmorrhage can be controlled, and that it is not so great as that met with when the placenta is implanted on the anterior wall of the uterus. 3. That it favours the escape of the

lochia into the subserous connective tissue, and consequent parametritis; this Dr. Kehrer thinks is to be prevented by drainage and disinfection. By separately suturing, first the uterine muscular tissue, and then the peritoneum covering it, Dr. Kehrer thinks that we have a double security against gaping of the wound and escape of secretions. With regard to Listerian precautions, Dr. Kehrer recommends that the vagina and cervix be thoroughly cleansed with a 10 per cent. carbolic acid solution before the operation. After the uterus has been emptied he would have it washed out with a weak solution of carbolic acid, and swabbed with a strong solution; and a careful toilette of the peritoneum made. Drainage of the abdominal cavity he thinks should be employed in every case of Cæsarian section. He regards it as doubtful whether the uterus and vagina should be occupied by a drainage-tube. As a rule, he thinks the irrigation of the vagina three or four times daily with a 2 per cent. solution of carbolic acid should be preferred.

THE YELLOW FEVER IN THE UNITED STATES.

THE *New York Medical Record* states that from September 10 to 16, inclusive, there occurred at Brownsville 232 cases, with 6 deaths, making a total to September 16 of 1771 cases, with 94 deaths. Official reports from Pensacola show that from August 28 to September 16 there have been 114 cases, with 19 deaths. Since then the cases have somewhat increased, but the deaths have been very few.

THE Medical Society of London, the oldest of the medical societies in the metropolis, will hold the first winter meeting of its 110th session on the 16th inst., when the President, Mr. Francis Mason, will make a few introductory remarks, calling special attention to the plans of the new buildings. The builders are already at work on the ground adjoining the premises of the Society, and when the new scheme is fully carried out the Society will have a long lease of a house which will be specially and admirably suited to their needs. After the President's address, Mr. T. M. Dolan, of Halifax, will read a *resumé* of his Fothergillian Prize Essay "On Whooping-Cough."

LADY STRANGFORD, writing from Cairo, on September 25, to Lieut.-Col. F. Duncan, R.A., says:—"The Khedive asked me to come immediately to Cairo, where the wounded were to be brought, and the sooner I could be ready the better. I hope to be in full work in a very few days. . . . We have a fine airy house, which we hope will very soon be full, and then the Arabs may see, for the first time, what nursing means. I want a great deal of money, and if I get it I am in hope that the skill of our nursing staff will really make an impression in Egypt." Her Ladyship adds that the chief physician of Egypt, His Excellency Salem Pasha, had been exceedingly kind, liberal, and generous. He had the Khedive's orders to do all she wanted and wished, and had been untiringly kind in the execution of those orders.

THE precautions taken by the local authorities at Bangor in diverting the water-supply from the filter-beds, and allowing it to flow direct into the mains, together with the continuance of the fumigation of the drains with hydrochloric acid, are being attended with, or followed by, the desired result. The cases of typhoid had for some time shown an average weekly return of sixty; but at the last meeting of the Local Board it was reported that only some half-dozen cases, and those of a mild character, had been notified since the last meeting. It is stated also that the epidemic is subsiding in Bethesda.

THE Council of the Statistical Society announce that they have again decided to grant the sum of £20 to the writer who may gain the Howard Medal in 1883. The usual annual competition for this latter has already been advertised, and all essays must be sent in before June 30 next.

TYPHOID fever is reported to have broken out among the men of the Metropolitan Police situated in Portsmouth Dockyard. Two fatal cases had already occurred some days ago; a third serious case has been taken to Haslar Hospital, and several milder cases are receiving treatment at their own homes. The police are quartered in a new pile of buildings which has been erected in the extension works, and the outbreak is attributed to defective drainage.

IN consequence of the prevalence of small-pox in South Africa, the Legislative Council of Natal has passed a Compulsory Vaccination Act. Lymph has been distributed to the clergy and missionaries in the native districts, with a request that they would vaccinate the Kaffir population. A first batch of two hundred on the Church lands at Bishopstown has been vaccinated. It is not stated what precautions tions have been taken, if any, to insure that the clergy and missionaries were competent to act as vaccinators.

WE are requested to state that Dr. T. P. Anderson Stuart has been elected to the Professorship of Anatomy and Physiology in the University of Sydney.

CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, 1882.

THIS annual and useful publication, which has just made its appearance, contains a large amount of information of interest not only to the members of the College, but to medical students at large, who will find in it all the questions set to candidates at the primary and pass examinations for the diplomas of membership and fellowship at the College, and also for the licence in Dental Surgery.

The general public will learn from it that there are as many as 16,093 Members of the College, and 1186 Fellows, making the total of an army of 17,279 qualified and well-educated practitioners. The Licentiates in Midwifery number 976, and seeing that the examinations for this distinction are now discontinued, the number will not increase. The Licentiates in Dental Surgery now number 510.

The Council or governing body of the College, which consists of twenty-four members, had held ten meetings during the past collegiate year.

The *Court* of Examiners consists of ten members, all of whom are members of the Council, and conducts the pass examinations in Surgery and Surgical Anatomy of candidates for the diplomas of Fellow and Member of the College; and during the past year held two meetings for the examinations for the fellowship and thirty-six for the membership.

The *Board* of Examiners in Anatomy and Physiology consists of nine members, who conduct the primary examinations for the fellowship and membership of the College. Only the Chairman (Mr. Henry Power) is a member of the Council. The Board held six meetings for the fellowship and forty-five for the membership.

The following statement of the number of candidates who presented themselves for the fellowship and membership of the College respectively during the past year will be read with some interest by the profession. For the primary fellowship there were 107 candidates, of whom 46 passed and 61 were referred to their studies for six months. At the second or pass examination there were 42 candidates, just half of whom passed, and the other half were referred for one year. At the primary or anatomical and physiological examinations for the membership during the collegiate year there were 1091 candidates, of whom 743 passed, 305 were

referred for three months, and the large number of 43 were so thoroughly unprepared that they were referred for an additional three months. At the pass examination in surgical anatomy and the principles and practice of surgery, medicine, and midwifery during the past collegiate year there were 666 candidates examined, with the following result:—343 passed, 69 were approved in surgery but required to qualify in other subjects, 56 were approved in surgery and afterwards qualified in other subjects, 254 were sent back to their studies for six months; and a total of 399 diplomas were granted.

For the Dental Licence there were three meetings, at which 32 candidates were examined and 28 passed.

The receipts and expenditure of the College from Midsummer Day, 1881, to Midsummer Day last were as follows:—The former amounted to £18,578 2s. 11d., derived principally from fees paid for the various examinations, as preliminary (now discontinued), primary and pass fellowship and membership, and dental, amounting to £15,653 3s. Rents from chambers adjoining the College—a wise investment, as property has increased so much in value in the neighbourhood of the College—produced £1523 14s. 6d., fees from members of the Council on their election £42, and from members of the Court of Examiners £21. The large sum formerly derived from Members of the College on their election to the Fellowship is now reduced to only £52 10s. The dividends on stock (£32,515 18s. 10d.) brought in £1097 4s.

The expenditure for the same period amounted to £17,272 2s. 5d., the largest item of course being of fees paid to members of the Court and Boards of Examiners and the Council, amounting to £7092 8s. 6d. Salaries and wages to the large staff of officers and servants for the three departments of office, museum, and library amounted to £4122 15s. For taxes, rates, and diploma-stamps the rather large sum of £1525 10s. 8d. was paid. In the extraordinary expenditure appears the sum of £278 10s. 8d. for the *conversazione* to the members of the International Medical Congress. There appears the respectable sum of £2158 19s. 7d. as the balance at the bankers.

In looking through the list of officers of the College, one well-known name will be missed—that of Mr. T. Madden Stone. The senior officer now appears to be Mr. John Chatto, the Librarian, appointed in 1853; followed by Mr. Trimmer, the Secretary—1859; Professor Flower, the Conservator, coming next—1861.

The following members of the Council appear to have carried off the prizes offered for competition amongst the members—viz., Messrs. John Birkett, in 1848; John Whitaker Hulke, F.R.S., in 1859; John Wood, F.R.S., in 1861; and Christopher Heath, in 1867. Of the six gentlemen who have been presented with the Honorary Gold Medal of the College since it was established in 1800, only two now survive, viz., the venerable Professor George Bennett, F.R.S., of the University of Sydney, who was admitted a Member of the College so long ago as 1828, and a Fellow in 1859; and Dr. William Lodewyk Crowther, of Hobart Town, a Member of 1841, and Fellow of 1874.

The different reports of the Conservator, Librarian, and Secretary will be read with great interest; the Librarian, Mr. John Chatto, states that the collection in his charge now contains 38,648 volumes, comprising 15,155 works, and 39,417 tracts, pamphlets, essays, reports, and theses. The report of the Conservator, Prof. Flower, states that during the past collegiate year the number of visitors to the Museum who had signed the hall-porter's book amounted to 11,284, whereas in 1861 the number was only 3669. This does not include the 1500 visitors to the International Medical Congress *conversazione*.

THE SEASIDE SANITARY HOTEL OF THE FUTURE.—Anxious Guest to the Hall-boy: "Boy, where are the water-closets?" "Haven't got any, sir; they breeds fever. Boat goes down the harbour every morning; ladies at nine, gentlemen at ten." "Well, is dinner ready?" "No, sir, we always carbolise the dining-room before meals. Now they are spraying the waiters, sir." (Impatiently), "Well, where is your iced water?" "Don't have drinking-water now, sir; 'tain't healthy. Yonder's our Labarraque mixture, flavoured to taste. Have a glass, sir?" Guest retires and takes a thymolised julep.—*New York Medical Record*, September 23.

FROM ABROAD.

PRODUCTION OF ANÆSTHESIA OF THE LARYNX.

PROF. BROWN-SÉQUARD read, at the meeting of the Académie des Sciences on September 23, the following note on "The Possibility of introducing a Tube into the Larynx without inducing Pain or Reaction of any kind."

"In this short communication I am desirous of fixing the date of the discovery of the following facts. If, after having opened the pharynx in mammals, by an incision carried between one side of the base of the tongue and the angle of the jaw, so as to bring into view the epiglottis, the upper border of the larynx, and the glottis, I cause to play on these parts a very rapid current of carbonic acid, I find, after a variable period of time (from fifteen seconds to two or three minutes), that the exquisite sensibility of the mucous membrane of the larynx is completely lost, and that it is consequently possible to introduce a tube (and even a finger, in a large dog) into the cavity of the larynx, and to turn it about there, without producing any reaction. I have performed this experiment on guinea-pigs, rabbits, and dogs; and in all of these I have obtained the general result described.

"The contrast between the normal condition of the larynx and the state of anæsthesia of this organ after its exposure to the influence of carbonic acid is extremely remarkable. It is well known that it is impossible to touch or tickle the laryngeal mucous membrane without producing very marked reflex effects. The glottis contracts spasmodically, and the entire larynx is raised up with violence. When this organ is irritated by means of a current of carbonic acid, or by the vapours of chloroform, there is produced a very great general agitation, besides the local reactions. These two anæsthetic agents act almost alike in this respect, and at first give rise to very violent irritation. On the contrary, when the larynx has been submitted for some minutes to the influence of either of these, but especially to that of carbonic acid, the irritative power of the one or the other on this organ is abolished.

"This local anæsthesia—which, moreover, is accompanied by an incomplete general anæsthesia(a)—scarcely disappears until the end of several minutes (from two to eight) after the cessation of the irritation of the larynx by the carbonic acid. In the course of some hours I have been able to repeat this experiment a number of times on the same animal, and I have always obtained from it the same result as regards the anæsthesia of the larynx and the possibility of introducing, without resistance and without reaction of any kind, a tube into the laryngeal and tracheal canals.

"I have allowed a number of the animals which had been submitted to these experiments to survive, and no ill effect, whether local or general, dependent on the carbonic acid or on the mechanical irritation of the larynx or trachea, has been exhibited in them. I have at the present time three dogs on which these experiments have been performed, and which have received an enormous quantity of carbonic acid either on the glottis or through it, in the trachea, and they appear to be in excellent health. One of them was operated upon eleven days ago, another six days ago, and the third the day before yesterday.

"I do not wish to examine to-day into the particulars of these researches, nor into the therapeutical applications which may be made of them. Before engaging in such applications it is necessary to make, on man, experiments demonstrating positively the innocuity of the entrance of a very considerable quantity of carbonic acid by the mouth or nostrils, independently of the certain well-known effects of this gas, such as cephalalgia, vertigo, etc. Experiments which I performed on myself in 1871 have already established that a very rapid current of this agent may be received in the pharynx without producing dangerous effects. But it is essential that these researches should be resumed under the new point of view of the production of local anæsthesia

(a) "It has been long known, through the interesting researches of M. Ozanam, and especially those of MM. Lallemand, Perrin, and Duroy, that the inhalation of carbonic acid may give rise to general anæsthesia. I may add that in some experiments, in which I have avoided the production of general anæsthesia, I have been able to cause the larynx to lose, although incompletely, its sensibility. Moreover, it is well known that carbonic acid can produce the local anæsthesia of several other mucous membranes."

of the laryngeal mucous membrane. This is what I propose to do very shortly."

Virus-Attenuation run Mad.

Truly, M. Pasteur's doctrine of the attenuation of viruses goes apace; for now Prof. Bouley, one of its most enthusiastic partisans, comes forward with a proposal for its extension to small-pox itself. He selects Algeria as a fitting field of operation, and in a paper just read to the Académie de Médecine proposes that the Arabs, who have great objections to vaccination, but none at all to inoculation, should be inoculated with the dilute or attenuated virus. The proposition, we are glad to find, was received with almost a storm of disapprobation, so that this fluent speaker had some difficulty in getting his views listened to. To it was objected that the evil for which it was thus proposed to find a remedy is grossly exaggerated, for the Arabs, devastated by epidemics of small-pox, and witnesses to the efficacy of vaccination in their vicinity, have in large numbers abandoned their opposition, and undergo vaccination in great numbers. Moreover, the assisting to keep alive this dangerous virus with all its contagious properties, and the discouragement given to the practice of vaccination—which, whatever may be the case in the country of its origin, has few opponents in France,—sufficiently condemned the proposition.

The Blind in Prussia.

The *Berliner Klin. Wochenschrift* of September 11 supplies some interesting facts in relation to the blind in Prussia, derived from the census returns of 1880. This census has exhibited the satisfactory fact that the number of blind has diminished since the former census of 1871. Thus, while there were 22,978 blind (11,066 males and 11,912 females) in 1871, or 9·3 per 10,000 inhabitants, there were in 1880 22,077 (11,343 males and 11,334 females), or 8·3 per cent. So that, although the population had increased 10·6 per cent., the number of blind had decreased 1·3 per cent. Surprising as the fact may seem at first sight, an explanation of it may be found. Blindness, fortunately, is seldom a congenital infirmity. According to the last census, 918 males and 716 females were born blind, and in 6962 males and 6875 females blindness first appeared after birth; and although in 3456 males and 3873 females no indication in this respect is given, yet the numbers of these last are not large enough to influence the results of the others. It is therefore certain that, in the majority of cases, blindness occurs at a later period. Here, too, comes in the result of medical observation—that many cases of alleged congenital blindness (in round figures 25 per cent. of all the blind in blind asylums) are to be referred to disease of the eyes contracted during birth. This *ophthalmia neonatorum*, which, in consequence of neglect or erroneous treatment, so often gives rise to blindness, is in modern times—thanks to the progress of ophthalmological science—treated with great success. So, also, small-pox as a cause of blindness is constantly retreating to the background. Further is to be taken into account the establishment from the time of Graefe of so many chairs of ophthalmology in the universities, whence has arisen the great progress of medical practitioners in the knowledge of the treatment of diseases of the eye. From the above considerations it results that the diminution of blindness is especially manifested in childhood. Thus there were—

Age.	1871.		188	
	Males.	Females.	Males.	Females.
Under 10 years .	664	558	572	488
10 to 20 years. .	1,013	845	992	823
20 to 50 „ . .	3,572	3,366	3,565	2,989
Above 50 „ . .	5,752	7,100	6,148	6,957
Unknown . . .	65	43	66	77

From so much blindness occurring during the later years of life, it arises that many of the blind are married. In 1880, of 100 blind persons, of the male sex 55, and of the female sex 53, were either married, widowed, or divorced. This is very different from what occurs among the deaf-and-dumb, because the causes and ages of occurrence are so different in the two infirmities. With respect to religious belief, it was found that of 10,000, 8·2 per cent. belonged to the Evangelical, 8·4 to the Catholic, 11·0 to the Israelites, and 15·3 to other forms of religious worship. In the fifteen establishments for the blind, 803 (33·4 per cent.) between the ages of five and twenty were undergoing instruction.

AN OVERDOSE OF MALE FERN.

Our attention has been called to a case reported in the *Ceylon Observer*, in which death followed the administration of a most unusually large dose of male fern.

Very briefly, the facts are these: Mr. A., aged thirty, had suffered from tapeworm for some time, but had seen nothing of it for three months, and was supposed to have been cured. Finding, however, that he was again passing portions of tapeworm, he placed himself in the hands of his regular medical attendant (Dr. Coghill, an Aberdeen graduate, and a man of influence and position in Ceylon), with an earnest expression of hope that he would be finally cured.

Dr. Coghill wrote the following prescription:—℞. Ext. eth. fil. maris ʒiss., pulv. kamalæ ʒiij., pulv. granati rad. ʒiij. (this was omitted by the chemist who made up the mixture, on his own responsibility), syrupi simp. q.s., aq. cinnamoni ad ʒiv., ft. Half to be taken at bedtime, and half at 2 a.m.

Mr. A. took half the mixture early one Sunday, and wrote to his doctor shortly afterwards to say that he was in a good deal of distress, and asking if he should take the remainder. Dr. Coghill advised him to take the other half, and calling to see him about three hours later, then found that he had been purging and vomiting a good deal. Four hours later Dr. Coghill was sent for, and found that the vomiting and purging had continued, and that the patient was complaining a good deal of cramp in the hands and toes. He applied a mustard plaster to the epigastrium and hot bottles to the feet, and injected a quarter of a grain of morphia subcutaneously. On leaving, he gave instructions that Mr. A. was to be roused and fed in two hours time. This was accordingly done, and Mr. A., though somewhat drowsy, answered questions. He was then allowed to go to sleep again, and died about 1 a.m. on the following morning.

Dr. Coghill seems to have anticipated that a charge of morphia-poisoning might be raised, as he was particularly careful to point out that deceased's pupils were not contracted after death. We may dismiss this part of the subject with the remark that the dose of morphia was a full one; but as the patient appears to have been roused without difficulty two hours later, we are not prepared to say that it produced any harm.

An autopsy was made, eighteen hours after death, by Dr. Carbery, who gave the following evidence:—"When I opened the abdomen I found the peritoneal surface of the small intestines of a rose colour. The omentum was also of a similar colour. Half of the small intestine was contracted, shrunk to the size of my little finger, and had fallen into the pelvis. I laid open the stomach and intestine, and found they contained neither food nor fæcal matter, but they were smeared with a dark fluid substance, which had a strong smell of ether. In the stomach I found the mucous surface congested over a patch about three inches in diameter, with ecchymoses under the mucous membrane, and minute, thready clots of blood on the surface of the mucous membrane. I found similar patches in the intestine, especially in the duodenum, in portions of the ileum, and in the first four or five inches of the colon." It may certainly be said that the appearances were such as might have been found if an active irritant had been administered during life.

Dr. Coghill named "Naphey's Modern Medical Therapeutics" as his authority for the dose of male fern. We have not been able to refer to this work, and indeed we must confess that its fame had not reached us; but we gather from a correspondent to the *Ceylon Observer* that the prescription above quoted is to be found almost *verbatim* in this work, and it is given as on the authority of Dr. William Brinton. As this correspondent points out, there would appear to have been a twofold misprint—first, in putting "oz." for "dr."; and, secondly, in giving the name of Dr. William Brinton instead of Dr. John Brunton. The latter, in a paper on the treatment of tapeworm, in the *Glasgow Medical Journal* for 1865, gave almost the identical prescription, even down to the directions, except that a drachm and a half of the extract of male fern was used, and not an ounce and a half, and he refers to it afterwards as a large dose. No one who takes the trouble to compare these prescriptions can

avoid the conclusion that the American copyist had made a misprint.

Though male fern is a very old anthelmintic—for it is mentioned both by Pliny and Galen,—we are not aware that any case of death from its use has been recorded, but that it is capable of producing serious symptoms has long been known; thus in the time of Madame Nouffer some practitioners spoke of having seen "violent colics, pain in the præcordial region, vomiting, faintings, etc.," induced by her treatment. Pereira says "large doses excite nausea and vomiting"; and Ringer says, "too large a dose may cause nausea, sickness, and even colic."

The dose of the extract of male fern is, according to the British Pharmacopœia, up to half a drachm, but Garrod, Ringer, and other authorities admit a dose of one drachm. We believe that the majority of practitioners regard a dose of one drachm as an ample one.

We have only space to add that, according to the report in the *Ceylon Observer*, Dr. Coghill was charged before a magistrate with "homicide by imprudence," and was discharged, apparently without being called upon to make any defence.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Airy on Diphtheria at King's Lynn.

In consequence of information received by the Local Government Board in December last, from the Medical Officer of Health for King's Lynn, to the effect that there had recently occurred in the borough forty-one cases of diphtheria, of which fourteen had proved fatal, Dr. Airy was instructed to proceed to the locality and report upon the circumstances of the outbreak. At the outset Dr. Airy found it very difficult to obtain anything like a complete account of the outbreak, not from any unwillingness on the part of the members of the profession at Lynn, but that in a great number of mild cases (especially in club patients), no record had been kept of name or date. Cases had been passed over under the name of "follicular tonsillitis," which subsequent events, and, in some, paralytic sequelæ, showed to have been really cases of diphtheria. The earliest case traceable appeared to have occurred about the beginning of September; but the first thing that excited public attention was the occurrence of two deaths from diphtheria in one family named Roberts, on October 12 and 22. A child living two doors from the Robertses, and who had probably visited them, was attacked on October 14, but recovered; and a servant-girl from the intermediate house, who had gone to her home on October 17, sickened on the 22nd. About the same time, three other families in distant parts of the town, who were not known to have had any communication with the former cases, were invaded; a week later another group of five or six families, unconnected with any of the above, in as many different streets, north, south, and east, were attacked with the disease. All through November fresh cases kept arising, some of them secondary cases in houses already infected, but the great majority being fresh invasions, with rarely any probable clue of personal infection, scattered impartially over every quarter of the town, affecting the well-to-do middle-class no less (in proportion) than the poor. In December the epidemic began to abate, but it was still lingering in January last, and caused six deaths in the first quarter of 1882. We have not space to follow Dr. Airy through all the details of his inquiry, but, to quote his summing-up, he found that there was no evidence that this outbreak had its origin in any case imported from any other district; nor that it was due to the use of infected milk or infected water. A sample of the latter was, indeed, submitted for analysis to Dr. Dupré, of the Westminster Hospital, who pronounced it free from any appreciable pollution by sewage-matter; neither was it in any way connected with prevalent epizootic disease. The circumstances of its commencement in a number of apparently independent cases, together with the season of the year (September-October) in which it took place, which is notoriously the favourite season for outbreaks of endemic diphtheria, appear to point, Dr. Airy thinks, to an endemic origin independent of any recent previous case. The cause is probably to be looked for, Dr. Airy goes on to say, not in any habitual condition—such as general dampness, or growth of microscopic fungi, or escape of ordinary sewer-air—but in some exceptional condition distinguishing this occasion in a very special manner. Such an exceptional condition was present in the shape of an excavation then being made in the old bed of the river for the construction of a new dock, and in the foul bed of the Fisher Fleet (a creek running through the northernmost part of the town) for a similar purpose. The direction of the wind on certain days was such as to carry into the town any emanations arising from this source; and the theory is suggested that these emanations may have been of a nature to cause diphtheria. Dr. Airy observes that he could find no other condition to which the origin of the outbreak could with any probability be ascribed. The subsequent extension of the disease appears to have been due partly to personal intercourse—in which, however, the schools seem to have had comparatively little share—and partly to inhalation of infected sewer-air, favoured by the unventilated condition of the sewers; probably also in part to the wafting of infection from house to house by currents of air.

Mr. Power on Enteric Fever at Norwood Village, near Uxbridge.

The subject of the inquiry with which this report deals was an outbreak of enteric fever that occurred last December at Harewood-terrace, near to Norwood Village, in the Uxbridge Rural Sanitary District. The terrace comprises thirty artisans' dwellings, which, in appearance and in the amount of accommodation they afford, are, Mr. Power says, in advance of dwellings commonly occupied by a similar class of persons in the district. The outbreak of enteric fever in this terrace, referred to in the report, comprised some thirty cases in fourteen houses, and one peculiar circumstance which particularly struck Mr. Power was, that both in this and in a former outbreak of the same disease in the previous August, the inmates of the houses numbered from 1 to 12 entirely escaped, whilst fifteen families in seventeen occupied houses numbered from 13 to 30 were invaded. Until this occurrence there had not been any outbreak of like suddenness and magnitude in Norwood for several years; though, Mr. Power adds, the district may be regarded as seldom for any length of time altogether free from the fever. Fortunately, throughout the whole of the outbreak none of the cases proved fatal, but the facts elicited during the inquiry suggested a fever-distributor of great potency such as has hitherto been recognised as operating through water or milk. Diligent investigation proved that the latter was not to blame, and attention was therefore turned to the water-supply. Here at first a serious difficulty arose, as the houses invaded were supposed to derive their supply from three separate pumps, each of which, it was affirmed, sucked from a separate well. Thus, if the water were to blame, it would be necessary to prove that all three wells, many yards distant one from another, were similarly polluted. Mr. Power, however, renewed his inquiries, and eventually was rewarded by ascertaining that at the time of the outbreak one of the three pumps was, and had been for some time, out of order, consequently all the water-supply was derived from the other two. Still the difficulty remained to account for the simultaneous infection of two separate wells, and again Mr. Power's persistence was rewarded by the totally unexpected discovery that the two serviceable pumps sucked from one and the same well. The foregoing facts having been satisfactorily established, a further clue that appeared wanting was next found; on November 27, 1881, cesspool cleansing was commenced in the terrace, and was repeated on subsequent days up to early December. The cesspools dealt with were those which had received bowel-evacuations of the August-September series of cases; the contents of the cesspools were removed to a hole newly dug in a garden some forty feet from, on higher ground than, and in the line of natural soakage to, the particular well from which the whole of the water-supply of the invaded houses had been drawn. The inference, therefore, Mr. Power observes, is not to be avoided, that this particular transference of cesspool contents to a hole in the ground near the suspected well speedily brought about specific pollution of the well-water, and thus occasioned the sudden outbreak of enteric fever among persons using that well-water. It need only

be added that the houses which escaped the outbreak had derived their water-supply from another well situated at the farther end of the terrace. Supposing the inference as to the source of infection in this outbreak to be correct, the lesson taught by the investigation is, that filtration through forty feet of soil does not destroy the contagion of enteric fever. Mr. Power reports that, as a natural consequence of the inquiry, Harewood-terrace has since been furnished with water from the Norwood (Middlesex) Water Company's works, and an order has been given to abolish the cesspools.

REVIEWS AND NOTICES OF BOOKS.

Stokes on Diseases of the Chest. Edited by Dr. HUDSON. London: New Sydenham Society. 1882.

IT is but five years short of half a century since Dr. William Stokes published his work "On the Diagnosis and Treatment of Diseases of the Chest," which is reprinted in the volume before us. To praise a work so well known and so highly esteemed seems almost superfluous on our part, but we cannot refrain from noticing very briefly Dr. Stokes' observations on the diagnosis of pleurisy with effusion. After showing how little reliance can be placed upon the symptoms, he says—"In pleuritic effusion physical signs have greater value than in any other thoracic disease. Most cases of bronchitis, of pneumonia, and of phthisis, can be at least recognised without these aids; but such is not the case in pleurisy; and it is fortunate that its physical signs are more simple, numerous, and striking than those of any other of the uncomplicated diseases of the lung." He divides the physical signs as follows:—1. Passive auscultatory signs; loss of sonoriety of the chest. 2. Active auscultatory signs—(*a*) phenomena of respiration; (*b*) phenomena of voice. 3. Signs of liquid accumulation, causing compression and displacement (*a*) of the ribs, (*b*) mediastinum and heart, (*c*) intercostal muscles, (*d*) diaphragm and abdominal viscera. Each sign is then discussed in detail, and its relative value in diagnosis apportioned to it. We have not space to follow him in this, or in his most interesting observations relative to the displacement of the various portions of the thoracic wall by the effusion. When we ask ourselves, after reading this, what progress has been made in the diagnosis of pleural effusions since this book was written, we are bound to admit that, with the exception of the exploratory puncture with a syringe, no physical sign of any permanent value has been added to the above list.

The Council of the New Sydenham Society have undoubtedly exercised a wise discretion in selecting this work for republication to serve as a landmark in the history of auscultation, and they have conferred a real service on the younger generation of the profession by bringing before their notice this work of a great master. The brief memoir which Dr. Acland has prefixed to the volume shows that Dr. Stokes, even at the outset of his professional career, evinced the powers of accurate observation and discrimination which characterised all his work in after life. Three years after he took his degree at Edinburgh, his first publication appeared in the shape of two lectures on the use of the stethoscope. That its use had not in those days been fully recognised is evident from the following passage:—"The stethoscope is an instrument, not, as some represent it, the bagatelle of a day, the brain-born fancy of some speculative enthusiast, the use of which, like the universal medicine of animal magnetism, will be soon forgotten or remembered only to be ridiculed;" and Dr. Acland testifies in a striking manner that these words were written long before the stethoscope had come into general use in this country even amongst hospital physicians. The present work was first published when Dr. Stokes was but thirty-three years of age, and, as he tells us himself in his preface, after he had been engaged upon it more than two years. The work at once stamped him as a clinical observer of the very highest order. In 1842 he became Regius Professor of Physic in the University of Dublin, succeeding his father in the office. His great work on Diseases of the Heart was published in 1854, and in the same year his Lectures on Fever appeared in the pages of this journal, and twenty years later were published with additions in a separate form.

During the early days of his career he exerted himself strenuously to improve the condition of the country practitioners in Ireland, who fell victims to fever in extraordinary numbers. His interest in medical education was no less keen, as is evident from an address delivered at the Meath Hospital in 1861, in which he finishes up: "Let us labour to place the teaching of medicine in its true position; . . . let us ever foster the general education in preference to the special training, not ignoring the latter, but seeing that it be not thrust upon a mind uncultivated or degraded. Let us strive to encourage every means of large and liberal education in the true sense of the term, and so help to place and sustain our noble profession in the position which it ought to occupy." There is just as much need for us to carry out these resolves at the present time as at any previous period.

Notwithstanding the great demands upon his time which his professional duties must have made, Dr. Stokes found leisure to keep up and cultivate his love of art, as well as to take a deep interest in several other branches of knowledge or science; and the esteem in which he was held outside his own profession is testified to by the fact that in 1874 he was elected President of the Royal Irish Academy, a post which he filled for two years, until, in 1876, increasing ill-health necessitated his final withdrawal from public life. He died in 1878, at the age of seventy-three years. The frontispiece contains an admirable portrait by his friend, the esteemed Director of our National Gallery.

We owe a debt of gratitude to Dr. Acland for the very interesting sketch he has given us of one of the most distinguished medical men that the present century has produced.

A Practical Treatise on Electro-Diagnosis in Diseases of the Nervous System. By A. HUGHES BENNETT, M.D. London: H. K. Lewis. 1882.

IN the volume before us, Dr. Bennett has set himself to bring forward all the facts in regard to electrical reactions in diseases of the nervous system which are necessary to a correct diagnosis. The first portion of the volume is occupied with a description of the forms of battery current in general use, and an explanation of various technical expressions. Then follow chapters on electrical reactions in health and disease, the latter of which contains practically a summary of the whole work. When both nerves and muscles respond naturally to both forms of current we may conclude that there is no disease of the grey matter of the cord or of the peripheral nervous system: on the other hand, should disease of either of these exist, we should then obtain the reactions of degeneration in a complete or modified form. Our author has explained very carefully all the various electrical reactions that are found, according as anterior cornua, nerve-trunks, or nerve-extremities are affected; and the reader will find all that he needs to know on this subject put before him in a very clear manner. Illustrative cases are given both of cerebral and spinal disease; but we would ask Dr. Bennett whether he has any good pathological evidence to justify him in placing paralysis agitans and pseudo-hypertrophic paralysis under the head of diseases of the spinal cord? Plates are given at the commencement of the book, showing the situation of those muscles that are accessible to the battery current, and giving the "motor points" of the superficial ones.

Diseases of Women, including their Pathology, Causation, Symptoms, Diagnosis, and Treatment. A Manual for Students and Practitioners. By ARTHUR W. EDIS, M.D., F.R.C.P. With illustrations. Second Edition. London: Smith, Elder, and Co. 1882. Pp. 551.

LESS than a year has passed since we noticed the first edition of this work at some length. We ventured to express the belief that it would prove useful to general practitioners, although it might not mark an epoch in the history of gynæcological science. That this expectation was justified, the appearance of the second edition testifies. In the preface, the author says, "In presenting another edition to the profession, I have adopted many of the suggestions offered by my reviewers." We think the book is improved in consequence, and we have little doubt that it will continue a popular handbook among those for whose benefit it was chiefly written. It has already been republished in America, and we find that a German translation will shortly be issued.

Lock Hospitals and Lock Wards in General Hospitals. By Frederick W. Lowndes, M.R.C.S. Eng., Surgeon to the Liverpool Lock Hospital. London: J. and A. Churchill. 1882. Pp. 31.

This pamphlet has been written because it seemed to the author that, while the public were aware of the existence and the gravity of venereal diseases, they have not sufficient knowledge of the work done by lock hospitals in preventing and curing these maladies, and the amount of public benefit thereby wrought. This state of things arises out of the nature of the case, which prevents the managers of these institutions from describing in the public press the kind of work that is done in them. Their deserts and needs can therefore only be made known by judiciously circulated pamphlets. The scope of Mr. Lowndes's little work is indicated in its title. He gives an account of the hospital accommodation, both voluntary and State-provided, which exists in this country for the cure of venereal disease. His object is purely philanthropic, being to help in getting for these institutions a larger measure of the support which they ought to have. We hope his efforts may be crowned with success.

An Atlas of Illustrations of Pathology. Fasciulus IV.: Diseases of the Liver. New Sydenham Society. 1882.

This number of the Sydenham Society's "Atlas of Pathology" contains several coloured drawings of cirrhosis of the liver; one each of brown atrophy and tubercular disease of the liver; one of the liver from a case of phosphorus-poisoning; and one of a somewhat rare condition, viz., cystic disease of the liver. There is also a coloured drawing of the spleen in a case of Hodgkin's disease; and three plates of drawings of microscopical sections are given, by means of which the minute changes in almost every known disease of the liver are exhibited. Dr. Goodhart has appended a brief, but nevertheless tolerably exhaustive, summary of what is known about the various diseases of the liver. The much-discussed subject of cirrhosis of the liver occupies a considerable share of his attention, and he concludes that hypertrophic cirrhosis is only separated (if at all) from cancer of the liver by very narrow boundaries, whilst the separate existence of biliary cirrhosis as a special form of disease he altogether denies.

The Change of Life in Health and Disease. A Clinical Treatise on the Diseases of the Ganglionic Nervous System incidental to Women at the Decline of Life. By Edward John Tilt, M.D., etc. Fourth Edition. London: J. and A. Churchill. 1882. Pp. 294.

This fourth edition of a well-known book calls for no special comment. Its general characteristics remain the same as before. The chief novelty is in the preface, which contains some blunt but wholesome remarks on modern American gynæcology. We do not think Dr. Tilt quite does our Transatlantic brethren justice, but there is only too much truth in the forcible manner in which he presents one side of the question.

University of Aberdeen.—The University Court on October 6 appointed the following six Extra-professorial Examiners in Medicine, viz.:—Dr. James Anderson, London Dr. John Barclay, Banff; Dr. George M. Edmond, Stonehaven; Dr. James Greig Smith, Clifton; Mr. Frederick Treves, London; Dr. R. M. Wilson, Old Deer.

Treatment of Ranula.—In the *Gazette des Hopitaux*, No. 113, an example is related of the successful treatment of a ranula by M. Anger's method, which consists in injecting by means of a Pravaz syringe one or two drops of deliquescent chloride of zinc, without having previously discharged the contents of the cyst. Considerable inflammation followed the injection, but without phlegmon or gangrene. The sac became retracted, its liquid contents having been absorbed. Whether a relapse may not take place cannot be certainly stated; but this has not occurred in Several other cases that have been thus operated upon. Against the objection that the procedure causes sharp inflammation and is very painful, have to be set its facility and efficacy.

GENERAL CORRESPONDENCE.

PROFESSOR PACINI ON THE CLAIMS OF HARVEY AS THE DISCOVERER OF THE CIRCULATION.

Letter from Dr. G. Johnson.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have recently had the honour to receive from Professor Pacini, of Florence, a letter, of which I enclose a copy, together with a literal translation which I have made, omitting only the complimentary Italian superlatives. I do not doubt that you, Sir, and your readers will feel an interest in the verdict of this eminent Italian Professor with regard to the relative claims of Harvey and of Cesalpino to be considered the discoverer of the circulation of the blood.

I am, &c.,

11, Savile-row, October 7. George Johnson.

[*Copy.*]

Illsso Sigr Prof. Johnson,—Ho letta con grandissimo piacere la sua bella Dissertazione (Harveian Oration), che ella si è compiacinta mandarmi, circa la grande scoperta della circulazione del sangue; e dietro questa lettura ho dovuto riconoscere, che la gloria di avere dimostrata questa scoperta con ogni sorte di argomenti e di fatti, appartiene incontrastabilmente ad Harvey.

Ella però non deve meravigliare che attualmente i più rumorosi sapienti Italiani pretendono attribuarlo a Cesalpino. Che se Cesalpino ed Harvey fossero tuttova viventi, è certo che i nostri scienti si farebbero un dovere di attribuirla ad Harvey; ma essendo ambedue morti è naturale che i sapienti Italiani pretendono rivendicarla per Cesalpino: ed ecco perchè l'Italia è detta ancora *la Terra dei Morti*.

In prova di ciò potrei citare più di un' esempio, in cui non sempre si è lasciata parlare la verità dei fatti; come si è visto ancora ultimamente nella R. Accademia de' Lincei, quando questa Accademia ebbe a giudicare il famoso concorso per le Scienze Biologiche, nella seduta solenne del 18 Decembre, 1881.

Publichi pure questa lettera se vuole, purchè sia pubblicata tutta intera; e intanto profitto di questa occasione per mandarle, con i miei enigraziamenti alermi miei opusculi, mentre mi confermo con tutto il rispetto,

Suo affsso collega,

Firenze, 28 Septembre, 1882. Filippo Pacini.

[*Translation.*]

To Professor Johnson,—I have read with the greatest pleasure your beautiful dissertation (Harveian Oration), respecting the great discovery of the circulation of the blood, which you have been pleased to send me; and, having read it, I am bound to acknowledge that the glory of having demonstrated that discovery by every kind of argument and of fact belongs unquestionably to Harvey.

You ought not, however, to wonder that actually the most clamorous of the scientific Italians endeavour to attribute the discovery to Cesalpino. If Cesalpino and Harvey were now living, it is certain that our scientists would consider it a duty to attribute it to Harvey; but, both being dead, it is natural that Italian scientists should attempt to claim it for Cesalpino; and thus it is that Italy is still called *the Land of the Dead*.

In proof of this I could cite more than one instance in which to speak the truth with regard to facts has not always been permitted, as was seen recently in the "Royal Academy of the Lynxes," when this Academy had to decide the famous competition in *Biological Science* at the solemn sitting of December 18, 1881.

You may, if you please, publish this letter, provided that it be published quite entire; meanwhile, I avail myself of this opportunity to send you, with my thanks, some of my pamphlets, and remain, with all respect,

Your affectionate colleague,

Florence, September 28. Filippo Pacini.

St. Thomas's Hospital Medical School.—The Entrance Scholarships in Natural Science have been awarded as follows:—Scholarship of £100 to Mr. Horace Duncan; scholarship of £60 to Mr. E. D. Shirtliff.

MEDICAL NEWS.

CAMBRIDGE UNIVERSITY.—CERTIFICATE IN SANITARY SCIENCE.—The following gentlemen were approved at the late examination for this certificate:—

Davies, D. S., M.B. Lond., Queen-square, Bristol.
Maclachlan, A., M.D. Glasg., Old Kent-road, S.E.
McNally, C. J., M.D. Queen's Univ. Ire., Surgeon Madras Army
Maxwell, Theodore C., M.D. King's Coll. Camb., Woolwich Common, Kent.
Meadows, C. J. W., M.R.C.S., Surgeon Bengal Army.
Pern, A., F.R.C.S., Botley, Southampton.
Salaman, S. M., M.D. Dub., Surgeon Bombay Army.
Smith, Henry, M.B. Lond., Hospital for Sick Children, Great Ormond-st.
Smith, Joseph, M.R.C.S., Medical Officer of Health, Guildford, Weybank House, Guildford.
Stevenson, W. E., M.B. Durh. Coll. Camb., Henrietta-st., Cavendish-sq.
Thompson, J. Ashburton, M.D., Brussels, London.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 5:—

Appleton, Harry, Lizard, Cornwall.
Bartlett, Benjamin Pope, Hastings.
Piesse, Charles Henry, New Bond-street, W.
Rouse, Rolla Edward, Woodbridge Rectory.
Winter, Thomas Bassell, 17, Werter-road, Putney.

The following gentlemen also on the same day passed their Primary Professional Examination:—

David, Evan, the London Hospital.
Hentsch, George Frederick, Charing-cross Hospital.
Lyster, Arthur Edward, St. Bartholomew's Hospital.
Tyler, Alfred Joseph Reeve, Charing cross Hospital.

APPOINTMENTS.

The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

DUMAT, H. AYLMER, M.B. and C.M. Edin.—House-Surgeon to Weston-super-Mare Hospital, in the place of F. N. Ozanne, resigned.

BIRTHS.

CROSS.—On October 5, at 7, Stanhope-terrace, N.W., the wife of John Cross, B.A., M.D., of a son.

DEAKIN.—On September 6, at Allahabad, North-West Province, India, the wife of Surgeon C. W. Shirley Deakin, I.M.D., of a son.

HUNT.—On October 3, at 101, Queen's-road, Dalston, the wife of Joseph W. Hunt, M.D., B.S. Lond., of a daughter.

KELLY.—On the 5th inst, at 12, Plough-road, S.E., the wife of Bernard Kelly, M.D., of a son.

LEONARD.—On October 7, at 279, Camden-road, N., the wife of H. Leonard, M.B., of a son.

THATCHER.—At 13, Albany-street, Edinburgh, the wife of Charles H. Thatcher, F.R.C.S., of a daughter.

TURNBULL.—On September 9, at Kelso, N.B., the wife of G. H. Turnbull, M.D., of a son.

WATHEN.—On October 7, at Coburg Villa, Richmond Hill, Clifton, the wife of John Hancocke Wathen, L.R.C.P., of a daughter.

MARRIAGES.

BABER—DAVIDSON.—On October 10, at Richmond, Edward Cresswell Baber, M.B., of 97, Western-road, Brighton, to Edith Kathleen Ellen, eldest daughter of James Davidson, Esq., of Richmond.

DASHWOOD—FLETCHER.—On October 7, at Fulham, Edmund S. Dashwood, M.R.C.S., to Anna Hill Williams, youngest daughter of the late Archibald D. W. Fletcher, Captain R.N.

HARRIS—CHALLINOR.—On October 3, at Leek, Staffordshire, James Penn Harris, F.R.C.S., of Liverpool, to Sarah Rosamond, daughter of the late Charles Challinor, Esq., of Liverpool.

HAWARD—WALKER.—On August 30, at Knightwick, Edwin Haward, M.D., M.R.C.P., F.R.C.S., of 9, Hurley-street, Cavendish-square, W., to Mary, eldest daughter of the late John Smith Walker, Esq., of Knightwick Manor, Worcestershire.

HOCKIN—CLOW.—On October 3, at Hamilton-terrace, N.W., G. Treverno Hockin, M.R.C.S., L.R.C.P., to Cordelia Fanny, daughter of the late Leonard Clow, Esq., of 11, Upper Hamilton-terrace, N.W.

JOHNSTON—MERCALF.—On October 5, at Leven, Augustus Johnston, M.B.T.C.D., M.R.C.S., of Gale House, Ambleside, to Judith Anne, younger daughter of the late W. Medcalf, Esq., of Broughton House, Newton-in-Cartmel.

LOW—PEARSELL.—On October 10, at Bayswater, Edward Litton Low, B.A., M.B., Surgeon-Major A.M.D., to Alicia Alleyne, widow of Major E. R. C. Pechell, late of 105th Light Infantry.

MACQUEEN—GERARD.—On October 10, at Edinburgh, Daniel Macqueen, M.D., Deputy Surgeon General A.M.D., to Keturah Jane, daughter of the late James Gerard, Esq., of Midstrath, Aberdeenshire.

NIND—HARVEY.—On October 3, at St. Mary Church, Vernon Pitt, second son of the late Philip Pitt Nind, M.R.C.S., of Torquay, to Jane, eldest daughter of John F. Harvey, Esq., of Earlham, St. Mary Church.

PARKES—MACLEAN.—On October 5, at Bryanston-square, Chas. Reginald, second son of Charles Henry Parkes, Esq., of Netherfield, Weybridge, to Addie Anna Jane, eldest daughter of John Maclean, M.D., of 24, Portman-street, Portman-square, W.

SAUNDERS—PALEY.—On October 5, at Peterborough, Alfred R. H. Saunders, Esq., to Annie, younger daughter of William Paley, M.D., of Peterborough.

SCATLIFF—FRIEND.—On October 4, at Preston Park, Brighton, Arthur W. Scatliff, M.D., of Margate, to Lilie, third daughter of Daniel Friend, Esq., of Stoneleigh, Preston Park, Brighton.

WHITE—DE PALATIANO.—On September 12, at Dunsford, co. Down, William Acraman White, M.R.C.S., son of John White, M.D., of Bath, to Olivia Fanny De Palatiano, third daughter of the late Count de Palatiano, of Corfu.

WOODS—PITTAR.—On October 4, at Brighton, Thomas Arthur Woods, B.A., M.B., L.R.C.S.I., L.M., of Douglas, Isle of Man, to Elizabeth Marmion, daughter of Thomas John Pittar, Esq., of 26, St. George's-terrace, Brighton.

DEATHS.

RIDDON, ROBERT, M.R.C.S., late of 2, James-street, Buckingham-gate, at Bideford, North Devon, on October 6, aged 52.

SEIU, OWEN, F.R.C.S., Assistant-Surgeon to the 1st Surrey Artillery Volunteers, at 2, Tisbury-road, West Brighton, on October 5.

SHANN, GEORGE, M.D., at 60, Petergate, York, on October 3, aged 73.

TURRELL, SAMUEL, M.D., at Windsor, on October 4, aged 60.

VACANCIES.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary £130 per annum, with residence in the Infirmary free. Candidates must be duly qualified. Applications, stating age, previous experience, and accompanied by testimonials, must be sent in to the Honorary Secretary, Mr. J. C. Grimbling, Burton-on-Trent, on or before October 16.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician. Candidates are required to have degrees from one of the universities recognised by the General Medical Council, and to be Fellows or Members of the Royal College of Physicians of London, and to reside within three miles of the Hospital. Diplomas and testimonials of qualification to be sent to the Secretary, W. Shoolbred, on or before October 23.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N. — Ophthalmic Surgeon. (*For particulars see Advertisement.*)

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary £70 per annum, with board and residence in the institution. Candidates must be doubly qualified and duly registered. Applications to be sent to the Chairman of the House Committee, Macclesfield Infirmary, on or before October 14.

MANCHESTER ROYAL INFIRMARY DISPENSARY AND LUNATIC HOSPITAL.—Honorary Assistant-Surgeon. (*For particulars see Advertisement.*)

MIDDLESEX HOSPITAL, W.—Assistant-Surgeon. (*For particulars see Advertisement.*)

NORTHAMPTON GENERAL INFIRMARY.—Physician. (*For particulars see Advertisement.*)

NORTH-WEST LONDON HOSPITAL, KENTISH TOWN-ROAD, N.W.—Ophthalmic Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and not practising midwifery or pharmacy. Applications, with testimonials, to be sent to the Secretary, Alfred Cruske, on or before October 28.

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £200 per annum, with fees extra, and residence (free of rates and taxes), coals, and gas. Candidates must be doubly qualified, registered under the Medical Act, and not under thirty years of age. Applications, with testimonials of recent date as to character and professional ability, to be sent to the Secretary, Hugh Watson, St. Mary's-walk, Scarborough from whom may be obtained all further particulars, not later than October 23.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1891.

RESIGNATIONS.

Driffield Union.—The office of Medical Officer for the Workhouse is vacant by the death of Mr. Alfred Scotchburn: salary £28 per annum.

Launceston Union.—The Fourth District is vacant by the death of Mr. E. L. West: area 17,323; population 2884; salary £28 per annum.

Norwich Union.—Mr. Charles Firth has resigned the Eighth District: population 9903; salary £80 per annum.

Thorne Union.—Dr. J. Cameron has resigned the Epworth District: area 11,386; population 2534; salary £20 per annum.

APPOINTMENTS.

Birkenhead.—Joseph C. Bell, F.C.S., as Analyst for the Borough, *vice* Dr. Vacher, resigned

Leeds Union.—J. Dobson, L.S.A., M.R.C.S. Eng., to the Sixth District.

Newark Union.—Frank Newcombe, M.R.C.S. Eng., L.S.A., to the Clifton District.

Tonbridge Union.—Alexander G. Thomson, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Horsmonden District.

THE LONDON HOSPITAL MEDICAL COLLEGE.—Mr. Hugh Smith obtained the Entrance Science Scholarship of £60, Mr. E. Barclay Smith the Entrance Science Scholarship of £40, Mr. L. Roby the Buxton Scholarship of £30, and Mr. F. R. Ozzard the Buxton Scholarship of £20.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—The first meeting of the session will be held at 1, Adam-street, Adelphi, on Friday, October 20, at eight o'clock, when the President (Dr. J. W. Tripe) will deliver an inaugural address on "Some of the Relations between Meteorological Phenomena and Man."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 7, 1882.

BIRTHS.

Births of Boys, 1265; Girls, 1202; Total, 2467.
Corrected weekly average in the 10 years 1872-81, 2574·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	736	686	1422
Weekly average of the ten years 1872-81, corrected to increased population ...	747·6	696·0	1443·6
Deaths of people aged 80 and upwards	...	...	47

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669623	...	3	6	2	2	1	4	...	5
North ...	965847	2	7	16	7	15	...	14	...	6
Central ...	252238	...	4	6	4	3	...	1	...	2
East	692738	...	4	23	...	3	...	3	1	3
South	1265927	1	7	23	9	7	1	6	...	13
Total	3846483	3	25	71	22	30	2	28	1	29

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ... 30·001 in
Mean temperature ... ... 55·4
Highest point of thermometer ... ... 71·1°
Lowest point of thermometer ... ... 43·3°
Mean dew-point temperature ... ... 51·0°
General direction of wind ... ... S.W. & N.E.
Whole amount of rain in the week ... ... 0·31 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 7, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Oct. 7.	Deaths Registered during the week ending Oct. 7.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week	Lowest during the Week	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2467	1422	19·1	71·1	43·3	55·4	13·00	0·31	0·79
Brighton ...	106585	68	39	18·6	66·0	48·0	55·7	13·17	0·62	1·57
Portsmouth ...	129916	82	43	17·3	...	...	...	...	...	...
Norwich	88821	41	25	14·7	...	...	...	...	...	...
Plymouth	74449	56	22	15·4	64·9	46·0	55·0	12·78	0·97	2·46
Bristol	210134	119	57	14·2	67·3	44·8	53·9	12·17	0·58	1·47
Wolverhampton .	76756	43	36	24·5	64·8	44·0	51·8	11·01	0·56	1·42
Birmingham ...	408532	312	159	20·3	...	...	...	...	...	...
Leicester ...	126275	84	41	20·2	...	...	...	...	...	...
Nottingham ...	193575	145	71	19·1	67·7	42·6	53·4	11·89	0·37	0·94
Derby	83587	49	27	16·9	...	...	...	...	...	...
Birkenhead ...	86582	52	46	27·7	...	...	...	...	...	...
Liverpool	560377	367	228	22·2	67·7	47·5	54·2	12·39	0·15	0·38
Bolton	106767	56	37	18·1	66·4	43·9	52·4	11·33	0·89	1·50
Manchester ...	340211	218	178	26·8	...	...	...	...	...	...
Salford	184704	129	56	15·9	...	...	...	...	...	...
Oldham	115572	83	37	25·7	...	...	...	...	...	...
Blackburn	106460	83	55	27·0	...	...	...	...	...	...
Preston	97656	62	44	23·5	...	...	...	...	...	...
Huddersfield ...	83418	70	23	14·4	...	...	...	...	...	...
Halifax	74713	46	18	12·6	...	...	...	...	...	...
Bradford	200158	110	58	15·1	67·2	47·6	55·0	12·78	0·53	1·35
Leeds	315998	224	134	22·1	64·0	47·0	55·4	13·00	0·53	1·35
Sheffield	290516	212	127	22·8	66·4	44·0	53·4	11·89	0·54	1·37
Hull	155814	113	54	17·7	70·0	39·0	54·5	12·50	0·43	1·09
Sunderland ...	119065	82	73	32·0	74·1	45·0	56·1	13·39	0·59	1·50
Newcastle	147626	85	57	20·1	...	...	...	...	...	...
Cardiff	83724	62	22	15·6	...	...	...	...	...	...
For 28 towns...	8469571	5513	3228	19·9	74·0	39·0	54·3	12·39	0·52	1·32
Edinburgh	232440	136	83	18·6	65·3	42·3	53·4	11·89	0·23	0·58
Glasgow	514948	346	241	24·5	68·0	39·0	53·4	11·89	0·10	0·25
Dublin	348243	173	133	19·9	66·0	46·1	54·6	12·56	0·13	0·33

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·00 in. The lowest reading was 29·62 in. on Sunday evening, and the highest 30·32 in. on Wednesday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A TEETOTAL EPIGRAM.

At Cana's feast a Guest Divine
Transformed the water into wine;
But now His Church—so priests have taught her—
Must change again her wine for water.
J. D.

Edward Sandon.—The "Roll of the Royal College of Physicians," by Dr. William Munk, will give you the desired information. It is in three volumes, and can be obtained at the College.

Poor-Law Conference.—The annual conference of the unions in the North-Western Poor-law District has just been held at Lancaster, at which there was a large attendance of representatives. The annual report stated, *inter alia*, that a memorial had been forwarded to the Local Government Board, urging that the Bill be introduced into Parliament by the Board to enable boards of guardians to sit three years, provided that one-third of the number elected for each union, as near as circumstances will permit, shall retire annually.

Evading the Law.—At Altrincham a man has been committed to prison for two months, in default of paying a fine of 40s., for taking lodgers in a house in Beggars-square in that town, the licence of the same having been withdrawn by the authorities.

Something like Business, at last.—The sewerage question was once more considered by the Wrexham Town Council last week, when a new scheme was submitted, which proposes to convey the sewage some distance from the town, and there deal with it by irrigating the land; and it was resolved that the scheme was worthy of consideration, and that plans and estimates for carrying it out be prepared.

Dr. Thompson, Liverpool.—Being a Member of the College of Surgeons, you can compete for any of its prizes, but the essays for both the Collegial Triennial and Jacksonian Prizes must be sent in on or before December 30 next. A list of the various subjects and successful authors will be found in the Calendar of the College, just published.

Grocers' Licences, Burnley.—The adjourned licensing sessions for the borough have been held. We recently referred to the fact that at the previous sitting the magistrate refused a number of new applications, and adjourned the rest, including the renewals of grocers' licences. They now stated that they found the Act of Parliament did not much assist them, but had decided to refuse all new applications, and, with regard to renewals, they considered themselves bound to grant all renewals except three, to which formal objections had been given by the police. They should give instructions for a full report to be made to them upon the houses, with a view to reduce the number as far as lay in their power

Coffee-Taverns, Germany.—To promote the cause of temperance in Germany an attempt is to be made to establish coffee-taverns for the poorer classes, similar to those opened in this country. A society has been formed with this object, and a meeting to carry it out has been held at Frankfort-on-the-Main.

The Paris Morgue.—M. Brouardel, the well-known Professor of Medicine, in a report addressed to the Prefect of Police, urges the removal of the mortuary known as the Morgue, among other reasons, because of the insufficiency of the present accommodation—though the mortuary was only constructed in 1864—for the increasing number of dead bodies; and he adds that it is impossible, in the existing state of the building, for medical experts to make researches which might be of great service to the cause of justice. He suggests that a new mortuary with "all modern improvements" should be built in the immediate vicinity of the Assize Courts. This proposal has already received the approval of the Council-General of the Seine, and will probably be carried out.

Sanitary Improvements, Croydon.—The Local Board has made an application to the Local Government Board for sanction to borrow £29,250. Of this sum it is proposed to appropriate £15,000 on recreation grounds, £7450 on works at the sewage farm, and £6800 on other sanitary improvements.

When Doctors disagree, who, &c.?—At an inquest held at Keighley, on the body of a man who was supposed to have died from lead-poisoning, caused by drinking the water supplied to the town, the West Riding analyst gave evidence as to the amount of lead absorbed by the water, which was so great as to be dangerous for domestic use. Dr. Tidy, of London, said that the deceased had not died from lead-poisoning, but from kidney disease. The jury, however, returned a verdict to the effect that the deceased's death had been accelerated by lead-poisoning.

Tailoring Workshops, Edinburgh.—From a statement made by the Secretary at a meeting of the Edinburgh Trades Council, in regard to the condition of the tailoring workshops in that city, it appeared that large numbers of them were underground, and in an unsanitary condition. The trade, it was understood, mean to apply for the aid of the Local Authority in dealing with the matter.

Health of Flocks and Herds.—The official reports of the Veterinary Department, up to a late date, show the health of flocks and herds in England to be better than it had been for a long time past. The satisfactory diminution of the graver forms of disease, such as pleuro-pneumonia, is referred to.

Emigrants.—A new "Passenger Act," for the better protection of the poorer class of passengers by ocean-going vessels, has been passed by the United States Congress, which it may be of some utility to notice. It applies to all steamships and other vessels by which emigrant passengers, or passengers other than cabin passengers, are brought from any foreign country to the United States. This new law prescribes that a certain space shall be accorded to each steerage passenger; that cargo shall not be placed in certain parts of the vessel; that berths of an improved pattern shall be provided; that certain kinds and qualities of food shall be served out; and that unauthorised persons shall not come on board at the port of arrival until the passengers have landed. An officer will be appointed to see after the light, ventilation, and other essential matters. The Act comes into operation on the 1st proximo.

For the Study of Physiology.—The late Mr. Thomas Maitland Balfour has bequeathed £1000 to Dr. Michael Foster, Prolector in Physiology at Trinity College, Cambridge, to be applied by him in the prosecution and encouragement of the study of physiology.

Compulsory National Insurance, New Zealand.—A measure for a Compulsory National Insurance Bill is now before the Legislative Assembly. It provides that compulsory insurance shall be enacted to insure sick-pay for every single person, male and female, between the ages of eighteen and sixty-five during sickness, and also for every married man and married woman during sickness. A superannuation allowance is provided for every person, male or female, from sixty-five years of age to death, and also an allowance for every widow with one child, increasing according to scale with the size of the family until the children are fifteen years of age. To insure the proposed benefits, every man and woman must pay into a fund between the ages of sixteen or eighteen and twenty-three years the respective total amounts of £6 6s or £6 7, or an average payment of about 2s. a week each for twelve years.

A New Cemetery, Eastbourne.—At a special meeting of the Vestry, power was given to the Burial Board to borrow £4300 for the formation of a new cemetery and necessary buildings. The site is at the east-end of the town, and comprises ten acres and a half.

Marsh Fever.—M. D'Abbadie, a French chemist, has drawn the attention of the Academy of Sciences, in Paris, to the efficacy of sulphur in preventing the propagation of marsh fever. It has been observed by travellers, he says, that the elephant-hunters in Ethiopia are not affected by the most unwholesome air, and that they are in the habit of fumigating their bodies daily with sulphur. Professor Sylvester, of Catania, in Sicily, a district famous for its sulphur mines, stated, in answer to questions from M. D'Abbadie, that intermittent fever was never fatal in that locality. Moreover, in the surrounding villages 80 per cent. of the population were attacked by the fever, but in the sulphur-producing villages the proportion was only from 8 to 9 per cent.

What does it Portend?—The numerous licensing bodies throughout the country have received a circular from the Government, asking for particulars as to the prevalence of Sunday drinking, and the supposition is that the Government intend to extend the Sunday Closing Act to the country generally.

Brawn.—It is said that Dr. Thursfield, in reporting to the Local Board of Whitchurch, Salop, on the recent cases of symptoms resembling irritant poisoning affecting a number of persons who had all partaken of brawn, stated that after investigation and microscopical and chemical examination he had no doubt but that the symptoms produced depended upon certain extremely minute organisms existing in the brawn, which, however, could only be shown absolutely by experimentally administering a small quantity to some animal. He was unable to give the result of any such experiment, as by so doing he would render himself liable to severe punishment.

Works on Surgery.—The Pope, it is stated, has acquired the library of the late Professor Asser Felicioni, which consists of a collection of every known work on surgery published since the beginning of the present century.

COMMUNICATIONS have been received from—

Dr. George Johnson, London; Dr. A. Ogston, Aberdeen; Dr. Oliver, Newcastle-on-Tyne; The Secretary of the Statistical Society, London; Lieut.-Col. Duncan, Woolwich; The Registrar of the Apothecaries' Hall, London; Mr. A. Austin, London; Mr. James Dixon, Dorking; Dr. Webster Cathell, Baltimore; Mr. R. Walker, Aberdeen; The Secretary of the Medical Society, London; Dr. Lucas, Ahmedabad; Dr. Cayley, London; Mr. J. Chatto, London; Mr. T. M. Stone, London; The Hon. Secretary of the Pathological Society of London; Mr. M. Morris, London; The Secretaries of the Medico-Chirurgical Society, Glasgow; Mr. Munro Scott, London; The Directors of the Naval Medical Supplemental Fund, London; Dr. W. Fraser, Aberdeen; Mr. H. Bonham Carter, London; The Hon. Secretary of the West Kent Medico-Chirurgical Society; The Registrar-General for Queensland; The Registrar-General for Scotland, Edinburgh; Surgeon-General H. Bellew, Lahore; Dr. T. P. A. Stuart, Edinburgh; The Hon. Secretary of the Society of Medical Officers of Health, London; Dr. Gillespie, London; Dr. Alexander, Liverpool.

BOOKS, ETC., RECEIVED—

Practical Medical Anatomy, by A. L. Banney, A.M., M.D.—Diseases of Old Age, by J. M. Charcot, M.D., and A. L. Loms, M.D.—General Medical Chemistry, by R. A. Witthaus, A.M., M.D.—Artificial Anæsthesia and Anæsthetics, by H. M. Lyman, A.M., M.D.—A Medical Formulary, by L. Johnson, A.M., M.D.—Diseases of the Eye, by H. D. Noyes, A.M., M.D.—On the Continuous Inhalation of the Vapour of Slaking Lime in the Treatment of Membranous Laryngitis, by Eugene F. Cordell, M.D.—Thirty-sixth Report of the Commissioners in Lunacy to the Lord Chancellor—The Life and Work of St. Paul, part ix., by F. W. Farrar, D.D.—Seventh Annual Report of the Society for the Abolition of Vivisection—The International Encyclopædia of Surgery, by John Ashhurst, jun., M.D.—Annual Report of the Combined Sanitary District of West Sussex—The Disease of the Scythians, by W. A. Hammond, M.D.—Die acute Entzündung des häutigen Labyrinthes des Ohres, von Dr. R. Voltolini—Annual Report of the North Wilts Dispensary, Devizes—Annual Report of the East Suffolk and Ipswich Hospital, etc.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Ciencias Médicas—Friendly Greetings—Leisure Hour—Midland Medical Miscellany—Sunday at Home—Girl's Own Paper—Boy's Own Paper—Louisville Medical News—National Anti-Compulsory Vaccination Reporter—Student's Journal and Hospital Gazette—Australian Medical Journal—Analyst—Boston Journal of Chemistry—Therapeutic Gazette—North Carolina Medical Journal—Kennel Review—Citizen, October 7.

APPOINTMENTS FOR THE WEEK.

October 14. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

16. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. The President (Mr. Francis Mason), Introductory Remarks. Dr. Dolan (Halifax), "Resume of Fothergillian Prize Essay on Whooping-cough."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Specimens: Dr. Norman Moore—1. Ulcer of Duodenum; 2. An Appearance of the Diaphragm in Rickets; 3. Aneurisms in Young Persons. Mr. Bowlby—Double Obturator Hernia. Dr. Bedford Fenwick—Tricuspid Stenosis. Mr. Alban Doran—Incipient Cystic Disease of Parovarium, etc. Dr. Samuel West—1. Mediastinal Tumour in a Boy; 2. Aneurism of Aorta; 3. Ulceration of Colon in Typhoid Fever. Dr. Heneage Gibbs—Cirrhosis of Liver in an Infant. Mr. W. H. Kesteven—Injury to the Vertebral Column.

18. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 p.m. Lectures and Demonstrations: Dr. Symes Thompson.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

Harveian Society, 8 p.m. Mr. Pepper, "On Trepanning Mastoid Cells in the Adult." Mr. G. Eastes, "On Physiological Rest in the Treatment of Medical Cases"—concluded.

20. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

Society of Medical Officers of Health, 8 p.m. The President (Dr. J. W. Tripe), "On some of the Relations between Meteorological Phenomena and Man" (Inaugural Address).

At the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 10th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £75 was distributed among the several applicants.

ORIGINAL LECTURES.

CLINICAL LECTURES
ON CASES OF PLEURITIC EFFUSION.

Delivered at the Hospital for Consumption and Diseases of the Chest.

By R. DOUGLAS POWELL, M.D., F.R.C.P.,
Physician to the Hospital; Physician to the Middlesex Hospital.

LECTURE I.
ON THE PHYSICAL SIGNS OF EFFUSION.

GENTLEMEN,—The exceeding kindness of my colleagues here and at the Middlesex Hospital enables me to bring before you cases illustrating the principal features and chief varieties of effusion into the pleura. I will base my remarks upon these cases, and will bring two of them now into the room, and have the others at hand for you to examine afterwards. I may first briefly observe, however, that the various cases of pleuritic effusion that in practice come before us for diagnosis and treatment fall under the chief headings of—1. Inflammatory effusion; 2. Mechanical effusion: 3. Hæmorrhagic effusion. The chief group being the first.

1. Inflammatory effusions. These may be—

(*a*) Primary or idiopathic, *i.e.*, may constitute the sole discoverable lesion present, although the constitutional or local conditions leading to the pleurisy have always to be taken into account.

(*b*) Secondary to injury, or to pulmonary disease or disease of neighbouring parts or organs (tubercle, cancer, etc.).

(*c*) Inflammatory effusions may come under our observation in the acute or the chronic stage, and some cases are of such insidious origin as to warrant the term subacute or chronic from the first.

(*d*) In *distribution* the effusions, whether acute or chronic, may be unilateral or bilateral or limited. It is most common for pleuritic effusions to, more or less, fill the pleura on one side only; bilateral cases are usually associated with some more general disease.

(*e*) Lastly, the fluid effused may be serum or pus or sero-pus. Sometimes blood elements are sufficiently admixed with the fluid effused to colour it.

2. Mechanical or dropsical effusions into the pleura may arise as a part of a general dropsy from heart-disease or albuminuria, in which case they are bilateral, or they may be produced by pressure on the returning (azygos) veins, when they are commonly unilateral.

3. Hæmorrhagic effusions may result from injury, from rupture of an aneurysm, or from cancer.

Effusions into the pleura have to be diagnosticated from—
Inflammatory consolidation of the lung.
Mediastinal growth invading the lung.
Hydatids of the lung. Abscess of the lung or mediastinum.
Hydatid or abscess of the liver.
Pericardial effusion.
Aneurysm.

It is further possible that more or less pleuritic effusion may be associated with any of the other diseases.

Having thus enumerated the sorts of effusion with which in practice we may have to deal, and the other diseases which we have to bear in mind in diagnosis, I will, with the help of the two well-marked cases now before you, demonstrate the signs of pleuritic effusion, without reference at present to the nature or origin of the effusion.

The cardinal signs of effusion into the pleura are (1) percussion dulness, (2) displacement of the heart, (3) absence of vocal fremitus; and to these may be added, with certain reservations, (4) absence of breath-sounds.

1. The *dulness* of effusion is absolute and toneless. It is distinguished by our American *confrères*(a) from more ordinary degrees of dulness by the term "flatness." It is the dulness of a brick wall rather than that of a table. In ascertaining the limits of dulness in cases of effusion, very light percussion should be employed, or the resonance of neighbouring parts will be elicited.

(a) Austin Flint, "On Percussion and Auscultation."

In cases of moderate effusion, the lung being texturally healthy, the upper margin of dulness in front is not a level line, but slants downwards and inwards in such a manner as to leave a somewhat triangular space of resonance (B, Fig. 1), the apex of the triangle being at the sterno-clavicular articulation. The resonance within this area is of a peculiar tympanitic quality, termed Skodaic resonance, to which I will refer again. In the axilla the line of dulness (flatness) is highest, and it extends round the scapular region until in the interscapular region it again slants downwards, a tongue of comparative resonance (B, Fig. 2) protruding downwards in the postero-median line, which has been described by Dr. Garland as the "dull

DIAGRAMS OF PERCUSSION SIGNS IN CASE OF MODERATE EFFUSION.

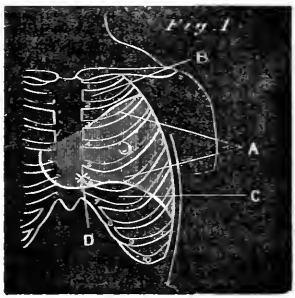


FIG. 1.—A, area of complete dulness ("flatness"); B, area of tympanitic (Skodaic resonance; C, inferior curved line of tympanitic stomach resonance.

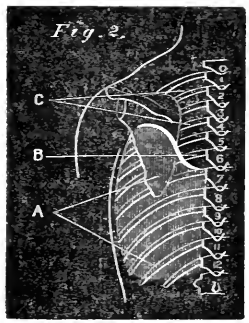


FIG. 2.—A, area of complete dulness "flatness"; B, pulmonary note usually impaired; C, more or less tympanitic high-pitched resonance.

triangle,"(b) in contrast with the flatness or absolute dulness of the percussion-note external to it. In one of the cases now before you, although the effusion is very considerable and of old standing, you can still make out the triangular area of comparative resonance (here of somewhat tubular quality) at the sterno-clavicular angle, and also in the upper interscapular region. In cases of extreme effusion, of which this other case is an example, the "flatness" of the percussion-note extends throughout to the utmost limits of the thorax, and, of course, these triangles of altered or comparative resonance are not to be found. In other cases, again, œdema or consolidation of the lung may obscure the signs over the areas referred to.

The upper margin of the effusion, then, in typical cases is not a water-level, but presents a curve, having its convexity upwards and in the lateral region. The posterior line of this curve is sometimes spoken of as the letter S curve of Dr. Ellis,(c) and Dr. Garland maintains that the curve

(b) "Pneumono-Dynamics," by G. M. Garland, M.D. New York, 1878. Page 15.

(c) *Boston Medical and Surgical Journal*, January, 1874, and December, 1876; quoted by Garland.

invariably commences at a lower level behind than in front. I have not found this to hold good, however, in all cases. The line of dulness does not very notably shift (although in this respect cases vary within narrow limits) with the position of the patient. In cases of hydro-pneumothorax, on the contrary, the upper margin of the fluid *is* a water-level, and shifts accordingly with change in the posture of the patient. The line of dulness in pleuritic effusion encroaches upon the sternum in front as the fluid increases, extending farthest across at the third and fourth cartilages, but being continued further outwards below this level by the outline of the displaced heart (D, Fig. 1).

The lower limit of dulness in typical cases of effusion is again peculiar (Fig. 1, C), the arch of the diaphragm being still preserved, even when the effusion is very considerable—so long, indeed, as Skodaic resonance is manifested. This can be best observed in left-sided cases, and to it I will again refer immediately.

Displacement of heart towards the sound side is the second cardinal sign of pleuritic effusion. The absence of this sign, unless it were explained by some special circumstances, *e.g.*, retention of the pericardium by old adhesions the result of some former disease, or consolidation of the opposite lung, would negative the diagnosis of unilateral effusion. But these and other causes of fixity of heart are rarely met with; the mediastinal folds are ready to shift to one side or the other, instantly or slowly, in obedience to the rapidity or slowness with which the pleura on one side is occupied, and the lung on that side collapsed, leaving the traction of the other lung upon the mediastinum unopposed. I venture to lay much emphasis upon the displacement of heart, rather than on displacement of other organs, as a sign of pleuritic effusion, because it takes place immediately and *pari passu* with the effusion. In this respect it strikingly differs from displacement of the diaphragm and abdominal viscera. The diaphragm is held up in the arched position until the effusion has mounted to a considerable height, and when the heart has already markedly retreated towards the opposite side. In fact, displacement of abdominal viscera is no essential sign of pleuritic effusion, and is only present in extreme cases; whereas displacement of heart *is* an essential sign, and (unless prevented by countervailing causes) is present from the first in all cases of unilateral effusion. The reason of this important difference is easy to comprehend; it will, however, be more conveniently considered in my next lecture.

Although the exact position of the heart is often somewhat difficult to make out, the trouble of doing so is well rewarded by the importance of the sign. The position of the apex-beat should be carefully felt for by the hand, and, if necessary, by the ear through the medium of the stethoscope. Percussion may also be usefully employed to trace from the sound side the line of cardiac dulness.(d) The axis of the heart is not greatly changed by any common degree of effusion; it becomes a little more vertical, and in very extreme cases it may become slightly twisted. I have never seen, nor have I been able to produce by experiment, anything approaching to the complete turnover of the heart represented in some books as occurring in effusion.

Absence of vocal fremitus is a third very important sign of pleuritic effusion; it is obviously due to the intervention of a bad conductor of such vibrations between the vibrating media and the chest-walls. If these two latter be united at any point by a cord of adhesion, the fremitus may there be felt. Just as light percussion is needed to define the exact limits of dulness, so light palpation is necessary, employing the finger-tips rather than the whole hand, in order better to exclude vibrations from above as we approach the confines of the effusion.

The three signs to which I have now at some length referred are sufficient in ninety-five cases out of a hundred to warrant the diagnosis of pleuritic effusion. They are, you will observe, palpation and percussion signs.

The stethoscopic signs in pleuritic effusion are sometimes misleading. A certain value is justly attached to the absence of breath-sounds and (except towards the upper confines of the effusion) of voice-sounds in the diagnosis of pleuritic effusion, but you will find in some of the most typical cases of pleuritic effusion the breath-sounds audible over the whole side, well defined, tubular, and not easily distinguished from the breath-sounds of pneumonia. The voice-sounds may also be well conducted over the whole side, and the whisper exaggerated even to pectoriloquy. I here pass round the cyrtometer tracing and clinical diagrams from a boy aged eleven years, who in September of last year was in my ward at Middlesex Hospital, with acute pleurisy and effusion on the right side of four days' duration. On the fifth day after admission the dulness had extended to the clavicle and well over the median line. The vocal fremitus was annulled, the heart was beating considerably outside the left nipple line, and the cyrtometer tracing showed enlargement of affected side, but *tubular breath-sound and whispering pectoriloquy* could be well heard posteriorly to the base, and somewhat more feebly over the lower two-thirds anteriorly. It was difficult to believe that one was listening over an immovably compressed lung, separated from the ear by some inches of fluid. Twenty-six ounces of clear serum were, however, readily removed the next day, with great relief to the little patient. This is no isolated case, and I am inclined to believe that the not infrequent presence of these auscultatory phenomena leads to the somewhat common diagnosis of "pleuro-pneumonia," a combination—I mean in the sense now employed of pneumonia with effusive pleurisy—in my experience of rare occurrence. The reasons why we should have absence of breath-sound in pleuritic effusion seem so ready to hand that an exaggerated importance has perhaps on this account been attached to this negative sign—for (1) a certain thickness of fluid separates the lung from the parietes, and (2) the lung being collapsed and immovable, how should it yield any respiratory sounds? Although explanation 1 is a valid reason why the respiratory sounds should be weakened, yet it must be remembered that fluid is by no means a bad conductor of sound, and particularly the more homogeneous kinds of fluid.(e) With regard to explanation 2, I must be tempted to digress from matters of fact only so far as to observe that it well illustrates the falseness of the still prevalent views as to the production of breath-sounds. It is impossible, with a due regard to clinical observation of such-like cases, to hold that the breath-sounds (with the single exception of the *vesicular portion* of the normal respiratory murmur) are generated within the lungs or bronchi. They are really laryngeal (glottic) sounds conducted down the tubes and through a certain thickness of residual (tidal) air. Over the sound side in this boy the laryngeal breath-sound was heard together with the vesicular sound as the soft (but exaggerated) respiratory murmur, but over the effusion the tubular sound was alone heard, merely conducted indifferently well through solid and fluid media. This digression will not have been wasted if it leads you to think upon the mechanism of healthy and morbid chest-signs, and if it prevents you from attaching too much weight to absence of breath-sound as a sign of pleuritic effusion, *the other three cardinal signs being present*.

Is there any other condition, besides that of fluid in the pleura, in which all these four signs—dulness, displaced heart, absent fremitus, and absent breath-sound—may be observed? There is one disease, happily of rare occurrence, in which they may be all present in association with a solidified lung, viz., in malignant growth pervading the lung from root to periphery. It is only in the last stages of such cases that the diagnosis is really difficult—when the growth has thoroughly solidified the lung, and occluded the bronchi so as to shut off breath- and voice-sounds and vocal vibrations, and has thrust aside the heart and enlarged the thorax. In such cases, puncture is our only method of rendering diagnosis certain. In earlier periods of the disease, the symptoms and the extension of physical signs from the root of the lung outwards, instead of from the base of the chest upwards, leaving the root resonant to the last, are readily interpreted aright.

In certain rare cases of dense inflammatory lung-consolidation, effusion is closely simulated. I have seen a case in

(d) There is one fallacy with reference to cardiac displacement in the earlier stages of effusion that may be here noted—viz., that as the base of the lung retracts, the left or right margin of the heart (as the case may be, right- or left-sided) becomes uncovered: this may lead to an apparent delay in the displacement of the organ, the more extreme left or right boundary being now within reach of palpation.

(e) I have at the present time in my ward at Brompton a case of pleuritic effusion on the left side, in which an endocardial mitral murmur is well heard through the fluid below the angle of the scapula—as well conducted as it would be through lung.

which complete dulness extended from apex to base, with absent breath-sound and greatly diminished fremitus and resonance. The heart was not appreciably displaced, however, and the case ultimately underwent slow resolution and recovery. In such cases the pneumonic exudation is excessive, and probably overflows the alveolar confines into the smaller bronchi, thus accounting for the dead dulness and absent breath-sounds.

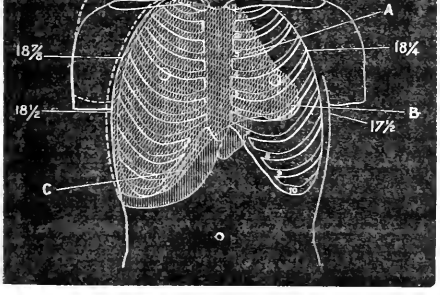
We have now considered the essential signs of pleuritic effusion without regard to the origin or nature of the fluid. The value of what I will call the supplementary signs of effusion consists chiefly in helping us further to a diagnosis (1) as to amount of fluid present; (2) as to presence of localised effusions; (3) between serous, sero-purulent, and purulent effusions.

I will content myself now with enumerating these signs; they are—

1. Increased size to eye and measurement of the affected half of the chest.
2. Intercostal bulging, elasticity, or fluctuation.
3. Skodaic resonance about the sterno-clavicular angle on the affected side.
4. Altered voice-sounds, ægophony, *pectoriloquie aphonique*.
5. Tenderness on palpation over some portion of the affected side; œdema of side.
6. Signs in the other lung.
7. Cardiac displacement bruits.
8. Temperature signs.
9. Septic phenomena.

I will touch upon some of these signs, so far as they need discussion, at my next lecture, and will ask you now to spend time more profitably in examining the series of cases waiting in the next room. I will ask you particularly to examine this case of extreme effusion, which has been kindly sent me from the out-patient room by Dr. Biss.

The patient is a man aged thirty-one, an ex-soldier, the history of whose illness is not very clear, but who was for some time in a military hospital in August, 1881 (nine



months ago), with an inflammatory chest-affection. He has been attending the out-patient department here for some weeks, but has rejected all offers to treat him as an in-patient.

He is, you observe, of dusky, somewhat livid, complexion, with cold, bluish extremities. The chest is obviously enlarged on the right side; the shoulder raised. There is a marked fringe of enlarged capillaries extending from the middle line outwards along the slant of the right seventh and eighth ribs. A cyrtometer tracing shows that this right side is an inch larger than the left, and that it is rounded in outline.

You can note for yourselves also the position of the heart, the limits of percussion-dulness, the absence of vocal fremitus, of vocal resonance, and of breath-sound. (See Diagram, Fig. 3.)

In this case the effusion is so excessive that no Skodaic resonance is obtainable, the percussion-dulness being absolute throughout; neither is ægophony to be obtained in any of the ordinary situations. This modified vocal resonance (ægophony) is heard, however, in an unusual position, viz., just within the line of dulness on the left side of the sternum at the third cartilage (A, Fig. 3). Along this vertical line also bronchial breath-sound is heard. Over the apex of the displaced heart a loud and rough murmur is heard with the first sound, which I have little doubt is due to some disarrangement of the mitral valve from displacement. Another feature of interest in this case, and one of very rare occurrence, is an inverted movement of the diaphragm during respiration on the affected side. The liver is distinctly depressed; its margin is, however, difficult to define. During *expiration* the detrusion of the liver is most marked, and a rounded tense swelling can be distinctly felt immediately below the cartilages in the right nipple line, C. During *inspiration*, however, this swelling recedes upwards, and the liver likewise to some extent. On the healthy side the diaphragm descends as usual during inspiration. Thus, the two hands being placed on the corresponding right and left hypochondriac regions, can be seen to ascend and descend alternately instead of synchronously. The explanation of this perverted respiratory movement of the diaphragm on the side of the effusion is obviously that it is here bagged downwards by the pressure of the large accumulation; this pressure being increased during expiration, the detrusion is increased; during inspiration, however, the thorax is enlarged, and the diaphragm, relieved from pressure, ascends.

Cholera and Filth in Calcutta.—An interesting article in the *Indian Med. Gazette* (September), on the relation between cholera and filth, as observed in Calcutta, in which this is shown by tabular statements, terminates in the following words:—"The close association of cholera and filth in Calcutta was very vividly demonstrated by Dr. Payne in the able and instructive reports which he prepared during his tenure of office as Health Officer of Calcutta. As a result of special inquiry, he was able to affirm that a large majority of cholera seizures in Calcutta occurred in the vicinity of foul tanks and wells, where water afforded an easy medium or nidus of conveyance or development of cholera poison. Evidence of the same sort has been forthcoming in later years, and a very remarkable instance of the outbreak of cholera in consequence of the fouling of air and water was recorded in our issue for June. The lesson which these facts convey is, that, whatever the specific cause of cholera may be (and we have no doubt there is a specific cause), the dependence of the disease on filth elevates the practice of general sanitation into the position of a special prophylactic of this dire and deadly disease."

Radical Cure of Hydrocele.—For this purpose Dr. Lampugnani, of the Pavia Hospital, employs with great success chloral hydrate dissolved in equal parts of warm distilled water, injecting, by means of Potain's capillary trocar, as a general rule, one or two grammes of chloral in children, four in the adult, and from that dose to eight grammes in the aged. The burning pain produced is allayed by cold applications; and if absorption has not became complete in eight or ten days, the injection, in a smaller dose, is repeated.—*Gaz. Med. Lombardia*, 1882, No. 25.

Carbolic Acid Injections in Hemorrhoids.—In a paper read at the New York Clinical Society, Dr. Kelsey reports (*New York Med. Jour.*, August) that he finds, after numerous trials, that in the injection of carbolic acid the profession is in possession of a safe, reliable, and painless means of radically curing hæmorrhoids; and that this method compares favourably in its results with all others of which we have any knowledge, and in its performance has many advantages over them. Dr. Kelsey uses one part of pure carbolic acid to three of glycerine and three of water, injecting five minims into each tumour. Although if there were any reason for shortening the interval this might easily be done, Dr. Kelsey usually repeats the injections once a week, so that in some cases the treatment may be carried over three months. As, however, the patient meanwhile is able to pursue his avocations, this is of no consequence. In the *New York Med. Record*, August 16, the practice of a Dr. Fenn is quoted, who states that he employs with great advantage equal parts of a 95 per cent. solution of carbolic acid and fluid extract of ergot.

ORIGINAL COMMUNICATIONS.

CLINICAL MEMORANDA OF PRACTICE IN INDIA.

By Surg.-Gen. C. R. FRANCIS, M.B. Lond., F.U.C.

PROFUSE CLIMACTERIC MENORRHAGIA AND SYMPATHETIC VOMITING CURED BY OPIUM.

On joining the —— Regiment, in 1859, at Lucknow, I found Mrs. R., the wife of a field-officer, suffering from profuse menorrhagia of climacteric origin. She was approaching her fiftieth year. Her menstrual periods had for some months been irregular, with a tendency to excessive discharge at each. When I saw her she had been thus ill for several weeks, and was greatly reduced. The discharge, which had been more or less sanguineous throughout, had somewhat subsided; but the most distressing symptom, which had latterly prevented sufficient nourishment being taken by the mouth, was vomiting. The smallest quantity of the blandest food was at once rejected. The very idea of food caused an inclination to vomit. Mrs. R.'s husband—a hale man and hearty feeder—would unwisely, but with the best intentions, urge her to "make an effort" to pull herself together with a mutton-chop and a glass of stout! A violent fit of retching would follow the suggestion. What more could be done? Opiates were suggested; a circular blister was therefore at once applied to the pit of the stomach, and one grain of morphia sprinkled over the raw surface. We might as well have sprinkled so much snuff!

Recovery at length was considered out of the question; it seemed, indeed, as if the end was rapidly approaching. It occurred to me that one thing alone might save her, and, having had considerable experience with the remedy, I determined to try it boldly. Mrs. R. was forthwith put under the influence of opium, introduced in the form of tincture, per anum, to the extent of twelve grains, at intervals of two hours the first day. The effect was magical. To give the stomach absolute rest, nourishment was introduced in the same way. In fourteen hours a tablespoonful of milk was swallowed and retained. Happily, there was no local lesion, and Mrs. R. eventually made a complete recovery, surviving her husband for many years, and living to a good old age in England.

I take leave to again repeat that, if in cases of extreme irritability associated with debility—a very common combination in India—opium be decided upon, it must, to do any good, be given with unhesitating boldness, though watchfully and with great regularity. It is marvellous how much opium an irritable system will sometimes bear. I have known an ulcer on the leg of a native, which for weeks had baffled all attempts to heal it, get well at once when nearly sixty grains of opium were given in the twenty-four hours.

So, in a case of simulated inflammation with extreme tenderness of an ovary, after a difficult labour in a phthisical patient, with suppressed lochia and milk, I have known recovery follow the free exhibition of opium, when death was almost hourly expected—the lady living sixteen years afterwards, and then dying of something else. I am afraid that I have seen more than one fatal result that, with a freer administration of opium, might have been averted. Undoubtedly, caution in its administration cannot be too religiously enjoined. I am bound to add that, owing to the absence of this very necessary caution, I have known disastrous consequences—even death itself—ensue. In judicious hands, opium is one of the most invaluable remedies in the Pharmacopœia.

HYSTERIA—HYSTERO-EPILEPSY (?).

The case about to be described was one, I believe, of genuine hysteria, with some epileptic-like symptoms.

The patient, aged twenty-two, a native Christian lady, with Hindoo ancestors, married, the mother of two children, of amiable and tranquil disposition, and well educated, with good connexions, had lived for some little time in Assam, and been repeatedly attacked there with malarious fever. In 1872, her duties having then brought her into the neighbourhood of my station, I was requested to see her, which I did more than once, on account of the fits (unfortunately I only saw one) to which she was subject. They had been called "hystero-epilepsy," though, beyond irregular and occasionally defective menstruation, the uterus was not at all in fault. At one time it was thought that the fits were epileptic, and of malarious origin; but eventually they were diagnosed as hysterical, and they yielded to the usual anti-hysterical remedies. A fit would be of this nature:—Without any previous warning the patient would become suddenly insensible. There were no well-marked abnormal symptoms excepting the muscular spasm. The pulse was but slightly accelerated, and the temperature and respirations were natural. The pupils were much as usual, responsive to light, with a slight tendency to strabismus. The teeth were firmly clenched, but there were no facial distortions, nor was there any foaming at the mouth. For some moments the entire body would remain in a state of tonic spasm—every possible muscle seemed to be involved. But the most remarkable feature was the opisthotonos. It probably was never more marked in the most pronounced case of tetanus or poisoning with strychnine. It was *the* feature in each attack. Afterwards there was a copious flow of pale urine with considerable exhaustion, the patient falling into a trance-like state. There was no coma; but she retained no recollection of what had occurred. The general health was indifferent. There were dyspeptic troubles, flatulence predominating, with cold extremities and sudden flushings of face. Her spirits fluctuated, but the tendency to depression predominated.

The treatment (of a fit) was, as stated, for hysteria, with tonics for the general condition, and it was successful. After a time the lady went to England, and completely recovered her health. She is now holding an important Government post in India, and is quite free from "fits." It is probable that malaria played a prominent part in giving the case its epileptiform features, such as they were.

(*To be continued.*)

A HEAVY BRAIN.—Dr. Halderman, of Columbus, is responsible for the following in the *Cincinnati Lancet*, July 22: The subject was a mulatto man, aged forty-five, who recently died in the St. Francis Hospital. His brain was found to weigh sixty-one ounces. He was about six feet in height, of ungainly build, but with a lofty and expanded forehead. He was a fugitive slave in 1862, and never manifested great intellectual brightness, but was of reserved and thoughtful disposition, and later in life became religious. He was illiterate, but by industry and economy accumulated a little property. But two brains are credited as having weighed more than this, viz., that of Abercrombie, 64·33 oz.; and that of Cuvier, 63 oz.—*New York Med. Record*, September 16.

ST. PETERSBURG LYING-IN HOSPITALS IN 1881.—According to a paper read by Dr. von Maydell at the German Medical Society, there were 1496 women delivered in the St. Petersburg lying-in asylums in 1881, no death taking place. There were, however, removed to the hospitals (the women not being allowed to remain in the asylums more than eight or nine days) twelve cases of puerperal disease, of which six proved fatal—so that the final mortality was only 4 per 1000. Dr. von Grunewaldt, reporting on his own asylum for lying-in women, stated that in about seven years he had had not quite 600 deliveries, and four deaths in these.—*St. Petersb. Med. Woch.*, No. 38. [For the week ending September 9, and with a population of 929,525, there occurred 535 deaths at St. Petersburg, besides the still-born (viz., 299 per 1000), and 116 of these were due to zymotic diseases, or 21·7 per cent. of the deaths. There were during the same week 294 per 1000 births.]

SENDING LETTERS BY PATIENTS.—It is worth while to observe a little caution when you send a patient to the care of a medical friend at a distance, as to whether she (it is usually a woman) is to be fully trusted as the bearer of a letter describing her case. A French journal reports that a lady being sent under such circumstances to some baths, was seized with curiosity to know what her medical attendant had said about the obscure disease from which she suffered. The diagnosis and recommendation for treatment which she found was this—"Mon cher confrère, je vous envie une oie à plumer. Déplumez la sans trop la faire crier."—*Boston Med. Jour.*, September 14.

TWO HUNDRED AND FIFTY YEARS OF SMALL-POX IN LONDON.

By WILLIAM A. GUY, M.B. Cantab., F.R.C.P., F.R.S.,
One of the Honorary Presidents of the Statistical Society. a

(*Continued from page 477.*)

TAKING the figures of Tables IX. and X. together, we arrive at the conclusion that the ratio of deaths by whooping-cough to deaths by all causes increased during the present century. The application of this fact, as of the facts relating to measles, to the question of the efficacy of vaccination will be presently apparent.

VI.—BEARING OF PREVIOUS FACTS AND INFERENCES ON THE EFFECTS OF INOCULATION AND VACCINATION.

Having set forth the inferences to be drawn from the records of two hundred and fifty years in relation to small-pox as an epidemic malady, and those that relate to measles and whooping-cough as being of minor importance, I now proceed to inquire whether those records enable us to throw any light upon the effects of inoculation and vaccination.

1. *Inoculation.*—Inoculation, as a means of imparting to a larger or smaller section of the population a form of small-pox entailing a low rate of mortality, in lieu of exposing the whole population to the risk of catching the natural disease with its much higher death-rate, was first practised in England in 1722, and, for reasons which it is not necessary here to state, made its way but slowly into popular favour. Hence Dr. Gregory, with only an approximation to the truth, speaks of the interval from 1711 to 1749 as one in which there was no inoculation. Modern writers, looking back to the eighteenth century, and taking note of the deaths and death-rates from small-pox, have been divided in opinion as to its ultimate effect on the mortality. One set of writers, well represented by Sir Gilbert Blane, upheld the doctrine that inoculation had on the whole been mischievous; while another set, worthily represented by Dr. Gregory, held that inoculation had lessened the mortality from small-pox. Having occasion to treat of the effects of inoculation in my work on Public Health,(b) I gave my adhesion to the favourable view put forth by Dr. Gregory, and justified it by figures, to which I shall presently advert. But I will first refer to the facts bearing on this question which have already been established in this paper—facts, be it understood, resulting from a comparison of the figures of the seventeenth with those of the eighteenth century. These facts in general terms, divested of figures, may be stated as follows:—

1. Epidemics of small-pox were more frequent in the eighteenth century than in the seventeenth.

2. The epidemics, taken one with another, were more severe in the eighteenth than in the seventeenth century.

3. The epidemics of the eighteenth century occurred at shorter intervals than those of the seventeenth.

4. Certain epidemics of the eighteenth century lasted more than one year, but none of the seventeenth century.

5. When years of equal, or nearly equal, mortality from all causes occurring in the seventeenth and eighteenth centuries are compared, deaths by small-pox are found to furnish a larger contingent of deaths in the eighteenth century than in the seventeenth.

These facts afford a strong presumption that small-pox, for some reason or other, was a more severe malady in the eighteenth century than in the seventeenth. But the presumption in favour of inoculation having been the cause of an increased mortality is less strong. To justify this inference, or to prove it unsound, we must bear in mind that inoculation did not come into play till towards the end of the first quarter of the eighteenth century, nor into general use till the last quarter. So that if we begin by comparing the ratio of deaths by small-pox to the total deaths in the forty years of the seventeenth century from 1647 to 1686, with the corresponding forty years of the eighteenth, we shall have a series of years in the eighteenth century during which the practice of inoculation may be safely assumed to be progressively on the increase, though it had not yet attained its highest point of development. The table which follows presents the principal results of this comparison:—

(a) Read before the Statistical Society, June 20, 1882.
(b) "Public Health," Lecture VIII., p. 205.

TABLE XI.

	Centuries.	
	Seventeenth (1647-86).	Eighteenth (1747-86).
Epidemics of small-pox (10) to 1000) ..	9	17
Maxima in round numbers)	124	173
Minima "	3	15
Intervals between epidemics (approximate)	3	2
Epidemics exceeding one year	—	2
Ten equal, or nearly equal, deaths from all causes—average deaths from small-pox	1,633	2,127

It will be seen that all the figures of this table agree in representing small-pox as more severe in the eighteenth century at a time when inoculation was being largely practised, than in the seventeenth when the practice was unknown.

But Dr. Gregory, who thought, in opposition to Sir Gilbert Blane, that small-pox proved less fatal in that part of the eighteenth century when inoculation was being practised, justified his opinion by comparing the deaths by small-pox in the three periods of twenty-nine years, ending respectively with 1740, 1770, and 1800—the first period being one in which, as he states somewhat incorrectly, there was no inoculation; the second period, one in which inoculation was coming into general use; and the third, one in which it was almost universal. Dr. Gregory obtained, as the result of this comparison, the figures (being the totals of the deaths) 65,388, 63,308, and 57,268, showing an ultimate saving of no less than 8115 lives. I waive the objection which may be made to this division, namely, that the first period of twenty-nine years ending 1740 was not free from the practice of inoculation, and arrange my own figures in a tabular form.

TABLE XII.

	First period ending 1740.*	Second period ending 1770.*	Third period ending 1800.*
Epidemics of small-pox	7	11	11
Maxima in round numbers	125	173	184
Minima "	47	49	15
Intervals between epidemics approximate	3	2	2
Epidemics exceeding one year	—	2	1
Aggregate of deaths by small-pox	60,391	60,428	54,958

* 1711-39, 1741-69, and 1771-99, all inclusive.

The figures of this table confirm Dr. Gregory's statement of results, though the aggregate figures differ from his. The totals, as stated by him, are larger, as is the saving of life, but his tables and mine agree in showing a progressive decrease and ultimate saving of life. This falling off of the numbers takes place, though the epidemics are more frequent and more severe in the second and third periods. But, on the other hand, the minimum number falls much lower.

I know that Dr. Gregory, with whom I was personally acquainted, was moved by these results to advocate a two-fold protective procedure in the shape of vaccination followed by inoculation.

I may add that when I adopt the division which I have advocated, into three decades—the first representing small-pox not modified by inoculation, ending 1719; the second, small-pox modified by inoculation in partial use, ending 1749; and the third corresponding to the large and general practice of it, ending 1790—I obtain from my tables the following figures: 22,228, 20,020, 17,785, showing an ultimate saving of 3443 lives. I had calculated the numbers for the three periods, when reduced to the uniform standard of a million inhabitants, at 31,416, 28,282, and 22,803.

Doubtless in the eighteenth century there were influences at work tending strongly to counteract any injurious influence which inoculation may be presumed to have exerted by spreading the disease which it mitigated. There was the progressive rooting out of small-pox from one of its centres of distribution, I mean our prisons; some improvement, not

easy to define or measure, in the sanitary condition of our town population; and, in the last years of the century, the abstraction of large numbers of our adult male population to supply our armies and fleets during the early years of the war with France—an abstraction which must have largely diminished (as did the deaths by plague in the year 1666) the possible victims of small-pox. Vaccination, though introduced in 1796, had not yet been brought into play upon more than a few thousand persons in the few years of the century that remained. If we take these possible causes of diminished mortality fairly into account, we shall probably arrive at the conclusion that the practice of inoculation, by effecting a large saving of life among those on whom it was brought to bear, did in a great degree counteract the currency given to small-pox among those whom it left alone.

2. *Vaccination.*—Is vaccination a preventive of small-pox? To this question there is, there can be, no answer except such as is couched in the language of figures. The response must issue from a comparison of the deaths from small-pox in a period prior to the introduction of vaccination, with the deaths from the same disease in some period subsequent to its introduction, and, as the alleged preventive is known to have come into play by degrees, and to have taken effect on an ever-increasing section of the population, the figures may be expected to harmonise with that known condition of things. They may also be expected to form an exception to the rule of all those diseases to which no similar method of prevention has been applied. For if they did not display such difference, but simply shared with them the common property of progressive decline, the diminishing mortality might be explained by some sanitary improvements common to them all. The figures, therefore, which present the ratio of deaths by small-pox to deaths by all causes, ought either to stand alone in the extent and progressiveness of their fall, or, if they resemble any other epidemic diseases in this respect, they should so far excel them as to admit of division into two parts, of which the one should be taken as the results of sanitary improvements that have lessened the mortality of several diseases in common, and the other should stand alone—a progressive reduction peculiar to itself. I shall presently make application of these tests, but, before doing so, shall revert to certain facts established in the earlier part of this paper.

1. The first in order of these facts is the entire absence in the present century of epidemics of the intensity represented by the ratio of 100 deaths by small-pox to 1000 deaths from all causes, though one such epidemic occurred in the year 1800, and several in all periods of the eighteenth as of the seventeenth century.

2. The marked excess of epidemics in the eighteenth century, when compared with the seventeenth century, is a fact of importance in its bearing on the question in hand; for it shows that small-pox had not, even up to the close of that century, undergone any considerable abatement. Small-pox, so to speak, had witnessed and survived the extinction of the plague, of which the last case is recorded in 1680, and the omission from the bills of mortality of such fatal maladies as the "Turkish Infection."

3. That the small-pox up to the close of the eighteenth century had undergone no considerable abatement, is further proved by the fact that some of the most severe epidemics took place in the last twenty years of the century (169 in the 1000 in 1781, 184 in the 1000 as late as 1796). This last epidemic was the worst on record, 173 in the 1000 being the only one on the same scale, and this occurred in 1752.

4. The lowest figures, too, are not without instruction, as bearing upon the efficacy of vaccination. The lowest figure recorded during the seventeenth century is 2·98 per 1000, in the year following the great plague, whereas the lowest recorded figure in this nineteenth century, during the prevalence of vaccination, is 0·56, or less than one-fifth of the low figure already accounted for by the incidents attending and following the great plague and great fire of London.

5. The lessons thus taught us in regard to the prevalence of small-pox in the eighteenth century are rendered more impressive by the fact that epidemics were more frequent, or, in other words, separated on the average by shorter intervals of comparative freedom, in that century than in the seventeenth. The epidemics of the eighteenth century occurred once in two years, those of the seventeenth once in four.

6. In the eighteenth century again, and in that alone, were the epidemic outbreaks of small-pox of more than one year's duration. Twice they extended to two years, once to four.

7. If we compare years of equal mortality from all causes in the seventeenth and eighteenth centuries, we find deaths by small-pox more numerous on the average in the eighteenth century than in the seventeenth.

8. If we compare deaths by measles with those by small-pox we find them marked by this difference, that while there was no epidemic of small-pox in the nineteenth century, there were several epidemics of measles, and that the mortality from measles rose to a higher level in the nineteenth than in the eighteenth century, being the reverse of what happened with small-pox.

9. So also of whooping-cough. It caused a much higher proportion of the total deaths in the nineteenth than in the eighteenth century, and therefore strengthens the lessons taught us by the measles.

Under the foregoing headings I have marshalled a series of statements which, if I am not mistaken, bespeak for the further examination of this subject a serious and sustained attention.

I shall, I think, make my meaning plainer if, in what remains of this paper, I adopt the standard of 100,000 instead of 1000, thus avoiding the use of decimals. I shall also add to the confidence which the figures I have already employed may have produced if I place side by side with them, as I do in Table IV. of the Appendix, the ratios of death by small-pox and by measles to 100,000 of the living population, drawing from these figures such inferences as they may seem to warrant.

I have already stated that in no year of the present century has the ratio of deaths by small-pox to deaths by all causes attained the high level of 100 and upwards, so frequent in the last years of the eighteenth. If we count the year 1800 as the last of the eighteenth century, these high ratios ended with that year, in which the ratio of deaths by small-pox was 10,443 per 100,000. Twice only in the seventy-two years of the present century did the ratio approximate at all closely to that high figure. These were the years 1805 and 1871, when the figures were 9592 and 9837 respectively. For the past year, 1881, they were 2924. In fifty-eight years, then, we had two epidemics approaching in severity the mildest of the old epidemics of the seventeenth and eighteenth centuries. In thirty-seven years of the seventeenth century we had nine such epidemics; in fifty-five years of the eighteenth we had twenty-four. Between these two years of maximum mortality much lower figures present themselves, especially after the year 1841, when the returns of the Registrar-General may be said to have assumed a permanent form. With this year, too, may be said to have commenced a period of frequent fluctuations in the ratios of deaths from small-pox, which fluctuations contrast strongly with the comparative steadiness of the figures for measles and for whooping-cough, as will be seen on reference to Tables I. and III. in the Appendix. But these fluctuations of the last forty years were not only frequent in their occurrence, they were great in their amount, falling so low in 1875 as 56 deaths from small-pox in 100,000 from all causes.

The value of facts of this order can only be ascertained by comparison with others relating to the same disease at earlier periods and under different circumstances, and to other diseases at the same period.

Now, the first question that suggests itself is this—whether the ratio of deaths by small-pox to deaths by all diseases ever fell so low in the seventeenth and eighteenth centuries. The answer is in the negative. The minimum of the seventeenth century occurred, as I have already stated, in the year 1666, under circumstances altogether exceptional—circumstances which reduced the deaths by measles in a like degree, and the deaths from all causes to an unusually low amount. If we exclude this low figure of 298 and that of the previous exceptional year 673, we find the minimum to have occurred in the year 1647, when it was 1008. On the other hand, this low figure of small-pox mortality occurred in a year of very high mortality from all causes.

But the significance of this low ratio of 56 per 100,000 is greatly increased if we compare it with the lowest ratio of the eighteenth century. Twice, and twice only, in the hundred years did the minimum sink so low as 1500 or

thereabouts. The first occasion was in 1702, when the ratio was 1596 in 100,000, and the other in 1772, when it was 1532. Take the last figure as the lowest of the century, we have the following contrast:—

17th century, year 1647, 1,008
18th " " 1772, 1,532 } Deaths by small-pox in 100,000 from all causes.
19th " " 1875, 56

So that in a year of this century of exceptionally high mortality from all causes the deaths by small-pox fell to 56 in 100,000, or exactly an eighteenth of the minimum of the seventeenth century, and about 1 in 27 of the minimum of the eighteenth century.

If, again, we deal with the highest instead of the lowest figures, we get the following results:—

17th century, year 1681, 12,440
18th " " 1796, 18,384 } Deaths by small-pox in 100,000 from all causes.
19th " " 1871, 9,837

Hence it appears that the maximum ratio of deaths by small-pox in the nineteenth century, the epoch of vaccination, very little exceeded half the maximum of the eighteenth, while the minimum fell to the enormously low figure of one twenty-seventh of that recorded in the previous century.

These contrasts will appear the more significant if I compare them with what happened in the case of measles and whooping-cough.

The figures for measles in the three centuries were as follows:—

The maximum, which was 9300 in the 100,000 deaths from all causes in the seventeenth century, fell to 5280 in the eighteenth, to rise to 6945 in the nineteenth; while the minimum rose from 5 in the 100,000 in the seventeenth century, to 52 in the eighteenth, and 635 in the nineteenth. So that the movement, if I may so express myself, from the eighteenth century to the nineteenth was one of increase, both for maxima and minima, in the case of measles, of decrease in the case of small-pox.

In the case of whooping-cough, again, the maximum in the eighteenth century, which from the year 1740 to 1800 was 2779 per 100,000 deaths, rose to 6859 in the nineteenth century, while the minimum rose from 223 to 1633, again the very reverse of what happened with small-pox.(c)

If, then, it were to be alleged that the remarkable fall in the maximum mortality from small-pox, and still more remarkable fall in the minimum, are attributable not to vaccination, but to miscellaneous sanitary reforms and improvements, we are furnished with a conclusive answer in the figures for measles and whooping-cough. How happened it, it may well be asked, that the same sanitary reforms and improvements which so greatly lowered the mortality from small-pox, whether we measure it by the maxima or the minima, acted on measles and whooping-cough in the opposite sense, raising in lieu of lowering their respective death-rates?

An advocate of vaccination might take his stand upon these numerical contrasts, and treat any further inquiry in the same direction as mere waste of time; but a critical inquirer after truth might seek to push the investigation to its utmost limits by bringing forward all the diseases which might fairly claim to be brought into comparison with small-pox, and he might further insist on making use of any existing standard of comparison other than the ratio of deaths to deaths. This cautious and sceptical method I now propose to adopt. I shall first present a tabular analysis of the facts relating to small-pox, using the ratio of deaths to deaths, and then make a final comparison of deaths by small-pox to the living population, placing this comparison side by side with the like comparison for other diseases which, like small-pox, may be presumed to have been favourably affected by sanitary reforms and movements.

Table XIII. presents at one view the first order of facts, with which I have hitherto been dealing throughout this inquiry, taking short periods of five years for purposes of comparison, and appending a column of notes of chief incidents of this century which may be supposed to have exercised an influence on the mortality.

In this table the following facts are made apparent:—

1. The high mortality from small-pox which prevailed in the five years ending 1800.

2. The progressive lowering of the mortality from small-pox during the first six quinquennial periods prior to the epoch of sanitary reform, as shown in the three columns of maxima, minima, and average.

3. A like progressive lowering of the mortality coincident with sanitary reforms and vaccine legislation during the eight quinquennial periods ending with the year 1880.

4. Several interruptions in the progressive decline in all the columns, and a recurrence of the high figure which stands at the head of the table under the quinquennium ending 1805, in the quinquennium ending 1875, after the long interval of fifty-eight years.

TABLE XIII.

Year ending	Ratio of Small-pox to 100,000 deaths from all causes.			Ratio of Measles to 100,000 deaths from all causes.			
	Max.	Min.	Aver.	Max.	Min.	Aver.	
1795	10,952	4,910	8,574	2,226	831	1,327	
1800	18,394	3,068	10,180	1,712	1,079	1,383	Vaccination introduced, 1796
1805	9,592	3,650	7,024	3,633	702	2,479	
1810	7,074	5,858	6,476	6,945	635	3,634	National Vaccine Estab. 1808
1815	7,034	3,308	4,728	4,246	1,378	2,861	
1820	5,263	2,134	3,681	5,443	3,814	4,020	
1825	6,178	2,753	3,528	3,774	1,773	29,654	
1830	2,897	2,423	2,493	3,728	2,212	2,328	
1845	3,529	792	1,862	4,797	2,138	2,611	First Vaccination Act, 1840
1850	2,804	510	1,321	3,608	1,510	2,635	Sanitary legislation, 1847
1855	2,121	351	1,400	2,337	1,088	1,676	
1860	1,855	283	872	3,696	2,150	2,810	Vaccination compul., 1853
1865	2,808	332	1,050	3,563	1,627	2,541	
1870	1,896	352	1,207	2,759	1,611	4,152	Vaccin. Act, '67
1875	9,837	56	2,433	2,847	1,717	2,165	Public Health Act, 1875
1880	3,293	536	1,408	3,082	1,781	2,736	
1881		2,924			3,125		
	9,592 ÷ 56 = $\frac{171}{1}$			6,945 ÷ 635 = $\frac{11}{1}$			

The general broad result of the table is a great decrease of mortality, both in the period of thirty years during which vaccination, being received with public favour, obtained the support of the State in the form of the National Vaccine Establishment, founded in the course of the second quinquennium, and in the longer period of forty years during which vaccination was first made gratuitous (1840), and then compulsory (1853).

In the first period of thirty years there was no sanitary legislation to which to attribute the decreased mortality from small-pox, and during this period the deaths by measles tended rather to increase than diminish, while the deaths by small-pox fell, on an average, from 7024 to 2793, being a decrease of 4231, or much more than half the highest figure. In the second period of forty years the ratio fell from 2793 (the lowest average figure of the first period) to 1408, being a decrease of somewhat less than a half. In this second period the decrease in the case of measles was very small. But the striking result of the table is seen if we compare the highest figure recorded during the first quinquennium, ending 1805, with the lowest recorded in that ending 1875. The interval between the two is that which separates 9592 from 56, or 9536. The minimum compared with the maximum is as 1 to 171. On the other hand, the minimum for measles compared with the maximum for that disease (635 and 6945) is less than 1 to 11; so that the reduction in the case of small-pox was about seventeen times as great as the reduction in the case of measles.

(To be continued.)

(c) The years of the maxima for measles were 1648, 1771, and 1808; of the minima, 1675, 1704, and 1809. The years of the maxima for whooping-cough were 1786 and 1831; of the minima, 1744 and 1808.

MIDLAND MEDICAL SOCIETY.—At the annual meeting, on October 11, the following were elected to the offices of the Society:—*President:* E. Malins, M.D. *Treasurer:* J. Harmar. *Secretaries:* H. Eales and T. F. Chavasse. *Members of Council:* Thomas Savage, M.D., H. R. Ker, Bennett May, B.S., and A. H. Carter, M.D. Five guineas each were voted to the Medical Institute and the Medical Benevolent Society of Birmingham. The inaugural address will be given on November 8 by Dr. Andrew Clark.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

THREE CASES OF VESICAL CALCULUS: LATERAL LITHOTOMY IN TWO; QUICK RECOVERY—LITHOTRITY IN ONE; COMPLETE RELIEF.

(Under the care of Mr. ARTHUR E. BARKER.)

[For the notes of these cases we are indebted to Mr. R. W. LEEMING, Dresser in the Wards.]

Case 1.—J. B., aged seven years, was admitted on September 18, 1882. Though rather a sickly-looking child, he had enjoyed fairly good health until two years ago, when he caught cold after being out in a snowstorm. From that time he had suffered from irritability of the bladder with the following symptoms:—Pain in the hypogastric region and at the end of the penis during and after micturition; frequent desire, but at times inability, to pass his water; and great pain, only relieved by the application of hot flannels over the abdomen. Under chloroform a calculus with smooth surface was detected lying on the floor of the bladder. The urine was pale in colour, with acid reaction.

On September 20, patient was put under chloroform, and the operation of lateral lithotomy performed by Mr. Barker. A uric acid calculus, oval in shape, with longest diameter an inch in length, and weighing 100 grains, was easily removed. There was very slight hæmorrhage, which was at once stopped by syringing out the wound with iced carbolised water. A dressing of lint soaked in carbolic oil lightly covered with salicylic wool was laid over the wound, and five minims of tincture of opium were given after the operation.

September 22.—Wound is commencing to granulate up.

24th.—Patient is suffering from tight paraphymosis. Temperature 102·6°.

25th.—Patient passed a restless night. Five minims of tincture of opium at 1.30 a.m.

28th.—As the paraphymosis had become tighter, a slit was made in the prepuce, and it was apparently reduced.

29th.—A second slit was made in the constriction, and the paraphymosis completely reduced.

October 1.—Patient has passed some water through the urethra, and was allowed to get up for the first time. After this (eleventh day) he was up and about daily.

From this date the wound rapidly healed, and on October 9 the patient left the hospital completely cured (nineteenth day after operation).

Case 2.—A. R., aged sixteen years, a shop-boy, was admitted on September 18, 1882, having been treated for a week previously as an out-patient. The commencement of his illness dates back four years, coming on after an attack of intermittent fever (?). Since that time he had suffered from pain in the back, accompanied by incontinence of urine both by day and night. There was pain at the end of the penis during and after micturition, down the loins after completion of the act when standing still, and after being shaken by driving. For these troubles he had been treated at another hospital by circumcision, no calculus having been discovered on repeated sounding.

On September 19 a calculus was detected; and on the 20th, patient being under chloroform, lateral lithotomy was performed by Mr. Barker. The stone when grasped proved large, and during the traction put upon it, broke into several large fragments in the forceps, and was removed partly by forceps, scoop, and washing syringe. It was a phosphatic calculus, dumb-bell shaped, weighing 150 grains, and containing a well-marked nucleus. The wound was dressed as in the previous case, and, as the pulse was feeble after the operation, two drachms of brandy with fifteen minims of tincture of opium were given. The patient progressed favourably, the temperature remaining about 99°, except on the evening of the operation, when it reached 101·8°, and the wound healing up. A soap-and-water enema, followed by one of castor oil, and another of soap-and-water on September 27, freely opened the bowels, and on the 28th and 30th water was passed through the urethra, but not any on the intervening day.

On October 2 the bladder was washed out with quinine lotion (two grains to the ounce), when a small quantity escaped through the wound, and on the 3rd a No. 6 silver catheter was easily passed into the bladder. The patient was out of bed on about the tenth day, and has been up and about every day since. He is now (on the 22nd day) quite fit to leave the hospital, but as a trace of urine still passes through a little opening in the perineum, he will stop a few days longer.

Remarks.—Mr. Barker remarked at the bedside on these cases, with reference to the operation of lithotomy, that his incision in the prostatic region had been very limited, that on reaching the staff he had simply run the blade of a comparatively narrow lithotomy-knife forwards into the bladder, without depressing its handle much, and without adding anything to this incision in withdrawing the knife. He had made this limited incision designedly (although both he and his colleagues, who also sounded the case, were inclined to expect rather large calculi), having more confidence in the safety of stretching the parts in question after very moderate incision, than in making a free initial incision so near the neck of the bladder. In both cases he had found the opening quite adequate for the removal of the stone by moderate traction after the usual dilatation with the fore-finger of the left hand, and without further cutting. But in Case 2, the stone being large for the patient's stunted size (he looked like a boy of eleven), and not very solid, it broke in the forceps during the first traction. This was in some measure an advantage, as the wound did not need any further dilatation. It had, however, delayed the operation somewhat, although, as the event showed, it had not added to the seriousness of the condition in any way. The two cases, operated on upon the same day, offered a good contrast as to the ease of extraction with and without breaking of the stone.

Case 3.—L. T., aged fifty-one years, married, was admitted on August 14, suffering from pain and frequency of micturition. For the three years previously she had noticed slight pain on micturition, which had become more severe twelve months ago, when the urine was sometimes clear, sometimes thick, but always having a putrid smell. She passed her water almost every hour, and though no difficulty was experienced in the act of micturition, occasionally the stream was suddenly stopped. Pain was always present during and before the act, but differed in character, being dull and aching before, and smarting during micturition. A calculus was detected in the bladder by means of a sound in the usual way, and Mr. Barker took occasion to demonstrate the use of the otoscope attached to the sound for hearing the friction of the latter over the calculus.

Operation.—The patient being placed under ether, the urethra was dilated by the finger and a three-bladed dilator until a test-tube could be introduced. Light was thrown in by a forehead mirror, and a calculus looking like a "mulberry stone" distinctly seen. Bigelow's large lithotrite was now introduced, and the stone crushed, proving, however, to be phosphatic. The bladder was then washed out with Bigelow's bottle, and two more fragments crushed, the detritus being washed away as before. There was some free hæmorrhage during the operation.

August 17.—Slight tenderness over the pubes. Patient has complete control over the bladder. Urine is thick, containing blood and slight deposit of phosphates.

21st.—The sound was passed, but no more fragments were detected.

22nd.—Patient left the hospital, cured. Urea 2 per cent.

Remarks.—Mr. Barker remarked, with reference to this case, that he took the opportunity of ascertaining in the operating-theatre what he had already proved on the dead subject, namely, whether it was possible to examine the state of the female bladder by reflected light thrown down an ordinary glass "test-tube" introduced through the dilated urethra. The result in this case showed that not only could the size and surface of a calculus be seen, but also the colour and condition of the mucous membrane of the bladder, by this very simple expedient.

THE SLEEPLESSNESS OF HYPOCHONDRIA OR HYSTERIA.—R. Assafœtidæ ℥j., morph. sulph. gr. iij.—m. ft. pil. xxx. One or two at bedtime.—*Louisville Med. News*, September 23, from *Med. Gazette*.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, OCTOBER 21, 1882.

ROYAL COMMISSION ON INFECTIOUS HOSPITALS.

The Report of the Royal Commissioners appointed to consider the hospital accommodation in the metropolis in relation to infectious diseases was issued on the 18th inst., together with the minutes of evidence; and, as could not but be the case, it is a document of very great public interest and importance. The Commissioners were all men who had in different ways and degrees distinguished themselves. The chairman, Lord Blachford, is a man of great and well-approved ability, and of long official experience in important posts; and his colleagues were Mr. Arthur W. Peel, Mr. Leigh Pemberton, Sir Rutherford Alcock, Sir James Paget, Dr. Burdon Sanderson, Dr. Broadbent, Mr. Jonathan Hutchinson, and Dr. Alfred Carpenter. The work entrusted to them was complicated and of wide extent; for the inquiry was to be directed to the nature, extent, and sufficiency of the hospital accommodation provided in the metropolis for small-pox and fever patients, and to a great number of matters connected with the position, arrangement, and management of these hospitals. The Report has been in our hands such a short time that we cannot to-day do more than attempt to give a *resumé* of its most important recommendations, reserving for future notice all detail and all comment. It gives a short and instructive history of the Asylums Board Hospitals, gathered chiefly from, or at least founded upon, evidence given by Sir John Lambert, the Permanent Secretary to the Local Government Board. Notification and isolation of disease are considered, and the Commissioners say that upon one cardinal point the evidence received by them was almost absolutely unanimous: "On the outbreak of an infectious disease the first imperative necessity is to isolate every case immediately and effectually as it arises. On the one hand, such isolation with its incidents almost invariably answers its purpose. We are told with confidence that when in the earliest stage of such a disease the patient is removed to a hospital, the house, its contents, and the adjacent drainage disinfected, and, in the case of small-pox, the neighbours revaccinated, no further apprehension need be felt on the score of that house. When this precaution is neglected, the contrary result follows. In one instance twenty cases of small-pox, in another twenty-five, in another twenty-three, in another sixteen deaths and twenty cases, were distinctly traced to one case of concealment, and the consequent absence of isolation and disinfection. Each freshly infected house tends, if neglected, to become a new source of contagion, and the whole to swell into an uncontrollable mass of disease." The Commissioners therefore think "that every person suffering from an infectious disease, or those in charge of him, or, if these neglect their duty, the occupier of the house in which the sick person is residing, or if he is a pauper, his medical attendant, should be required by law to notify the nature of the disease to the medical officer of health so soon as they or any of them are aware of it; and that, in the case of non-paupers, the medical attendant should, if it is inexpedient to impose any further obligation on him, be similarly required by law to furnish the sick person, or those in charge of him, with a certificate of the nature of the disease, in the form which we have already suggested, to be by them communicated to the medical officer of health. On every certificate so communicated a small fee should be paid to the medical man who signed it. If the medical officer, after receiving such a certificate, is satisfied that the patient can and will be properly isolated, and requisite means of disinfection adopted, the matter will proceed no further. If he is not so satisfied, and if the sick person is not too ill to be removed, he will notify the case to the Metropolitan Asylums Board, who will thereupon be at once and entirely charged with the patient till his complete recovery, and in particular will be empowered to remove him at once to one of their hospitals. So far, no distinction should be made between paupers and non-paupers who cannot be isolated." Within the hospitals, the Commissioners think those who are desirous of being placed in separate wards should be allowed such accommodation on paying for it; but they doubt whether, as a general rule, payment should be claimed even from those who can make payment without difficulty. If the sick person cannot be removed or isolated by those about him, the medical officer's duty will be to take the necessary steps for isolation, and generally for the protection of the neighbourhood. He should have power to clear the house of its inmates, to disinfect it, and, in small-pox cases, "to require the revaccination of all occupants who are not otherwise protected." Some of these "powers" are very large, and may be made very oppressive, but it is important to note that, in connexion with this part of their subject, and it may be said, we think, as a condition precedent to the establishment of compulsory notification and isolation, the Commissioners hold "that the provision of hospital accommodation for persons suffering from infectious disease in the metropolitan districts should be entirely disconnected from the administration of the Poor-law, and treated as part of the sanitary arrangements of the metropolis." With regard to the amount of hospital accommodation to be provided, even after making some allowance for the benefit that may be expected from preventive measures, the Commissioners think it advisable that there should be provided buildings which could, without difficulty, be made capable of receiving 3000 fever patients, and 2100—or, by special exertion, 2700—small-pox patients. Of the fever cases, those in the earlier stages (probably, they say, about half) should be provided for in London; the rest, the convalescents, in two or three country hospitals. So with the small-pox cases, the mild and the convalescent cases are

to be provided for in two or three more country hospitals; while as to remaining cases (estimated at about one-fourth of the whole number), the Commissioners think, "in the first place, that administrative blocks, with a few small wards attached to them, might be maintained within the precincts of the fever hospitals, sufficient, in each hospital, for thirty or forty small-pox patients; that the hospital authorities should divide the metropolis into hospital districts, assigning one to each hospital; and that no hospital should receive small-pox patients except from the district in which it is situated. This qualification is required, not only because the patients will always be such as must be sent to the nearest hospital, but also to obviate, as far as the nature of the case admits of it, the great and natural complaint of those who are in the neighbourhood of large small-pox hospitals, that the infection of the rest of London is poured in upon them. It is evidently of paramount importance that the areas of the small-pox wards, as well as their administration, should be rigorously separated from those of the fever hospitals, and, further, that their construction should be such as to reduce within the smallest limits the chance of spreading infection." The Commissioners appear to be satisfied that there has been an increase of small-pox in the neighbourhood of the large small-pox hospitals; but they are also quite satisfied that separate administrative blocks with a few small wards may be safely established for small-pox patients, within the precincts of the fever hospitals, these small hospitals to be *district* hospitals. The Commissioners are not in favour of any extension of hospitals for infectious fevers, supported wholly or in part by charity. They acknowledge that the Small-pox Hospital at Highgate and the London Fever Hospital at Islington have both been excellently well managed and have done excellent service to the public, but they think no hospitals for infectious diseases should be allowed unless they are to be "subject to the general but effective supervision of the sanitary authority. The subjects of compulsory purchase of sites for new infectious hospitals, and of the protection to be given to the Managers of those which already exist, were fully gone into by the Commissioners, and the arguments on both sides seem to be set forth very fairly. In the end they insist on the right of compulsory purchase, and on protection, to a certain extent, to the Managers. They say, "In acquiring sites for hospitals in the country, the authorities might be enabled, if they desire it, to purchase more land than is strictly required for their purpose, with the power of re-selling what they will not want, under conditions which preclude the purchasers from objecting to the hospital at any future period. In London and its immediate neighbourhood no question of damage could arise with respect to fever hospitals, and we should hope that such questions would be equally obviated in respect to small-pox hospitals by limiting their capacity to thirty or forty patients taken from the hospital district. The power of arresting the operations of the hospital authorities by injunction should, we think, be taken away. It is incompatible with the public safety that individuals should possess the power of suddenly paralysing institutions which furnish for the time the only machinery for controlling an epidemic. Nor do we think that the hospital authorities should be liable to action for any injury which has resulted from their operations, so long as their operations are conducted with reasonable care. The eventual redress of any substantial grievance will probably be secured by ordinary methods, such as representations made to the Local Government Board or other executive authority, complaint in Parliament, and actions at law for the recovery of damages in case of injury resulting from mismanagement."

TUBERCLE OF THE CHOROID.

The debate on the relation of tubercle of the choroid to tubercular meningitis at the Ophthalmological Society, on Thursday last week, was of interest both to ophthalmic surgeons and to physicians. It is not so very many years since the possibility of the recognition of tubercles by the ophthalmoscope was, to say the least of it, doubted. The point that was really in debate was raised by Dr. Warner, viz., is tubercle of the choroid more likely to be found in cases of acute miliary tuberculosis where there is no meningitis than where this is present? The case which he detailed to the Society was an instance in favour of the former hypothesis. It may be said at once that the views of all the speakers tended in the same direction. Thus, Dr. Baxter had never seen a case of choroidal tubercle in tubercular meningitis, Dr. Sharkey had only seen one, and Mr. Hulke considered that the coincidence a very rare one. Dr. Barlow admitted that he had seen choroidal tubercle without meningitis. We wish he could have told us in exactly how many instances. Now, if it is a fact that choroidal tubercle is rarer in cases with meningitis than without, there must be some good reason for this, and we hope that those who have the opportunities will set to work to discover it. The only explanation which occurs to us is that the deposit of tubercle in the choroid in a case of acute miliary tuberculosis is a late occurrence, and that in the majority of cases of tubercular meningitis the patient dies before the tubercles have had time to appear in the choroid. We do not say we believe this ourselves, but it is a plausible explanation, and it is one which can be verified or not by careful statistics. We hope that future workers will bear this in mind.

To revert to the original question, for ourselves we venture, with all deference to the majority (if not, indeed, to all) of those who took part in the debate, to think that there is no connexion whatever between choroidal tubercle and acute miliary tuberculosis without meningitis; we can see nothing more than a somewhat unusual coincidence.

Before giving our reasons for this opinion we would make one general remark, that will do away with some of the objections to our views that might be based on the remarks of some of the speakers at the debate. We consider that a negative examination during life, even when made by an ophthalmic surgeon of the utmost skill, is by no means a proof of the non-existence of choroidal tubercle, and we would not accept any statistics relative to their presence or absence that were not based on post-mortem examination. Of course, in cases where a microscopical examination is made, this affords the most conclusive evidence; but we have generally found it sufficient to strip the choroid from the sclerotic, and examine the supposed tubercle from behind, when, if real, it will be found to present the same grey appearance that it shows in the pleura or elsewhere. If we were to leave out of consideration the remarks of Dr. Barlow and Dr. Coupland, we should be led by the rest of the speakers to the belief that tubercle in the choroid was an exceedingly rare occurrence. This we attribute mainly to the fact that they were speaking from a clinical, and not from a pathological point of view.

Developmentally, the choroid is the homologue of the pia mater and the other serous membranes; there can, therefore, be no *à priori* reason why tubercles should not occur there. We all know that tubercles are much more likely to be found at the base of the brain than on the convexity, but we do not know the reason of this; and, in the same way, we do not know the reason why tubercles are not found in the choroid in every case; but our own limited experience leads us to believe that they are much more common than is generally supposed. We should say, for

instance, that they are decidedly more common in the choroid than on the pericardium. It seemed to us that, in the debate, clinical and pathological evidence were mixed up in a manner that was hardly fair, though, of course, quite accidental. Thus, those who spoke of the extreme rarity of choroidal tubercle in tubercular meningitis were referring to clinical experience, whereas those who spoke of choroidal tubercle in general tuberculosis without meningitis were obviously referring to post-mortem evidence. It is hardly necessary to point out what a difference this makes.

THE ARMY MEDICAL REPORT FOR 1880.—No. II.

Last year, when reviewing the Report for 1879, we made some observations on the quality of the recruits who sought to enter the Army as volunteer soldiers under the short-service system. We expressed a fear that the majority of these candidates for glory sought refuge in the ranks from the trials and troubles of an unsuccessful civilian career, and we ventured an opinion that many of those who were accepted as fit for service were too young and too weak to do hard work or withstand bad climates, and that probably when they returned to civil life they would find themselves more or less unfitted to hold their own in the labour market. We see no reason to modify our opinions after perusing the Report for 1880. Enough has been said in Parliament to warrant the conclusion that many short-service men, when they leave the Army, become tramps, either from unwillingness or inability to work; and as to their efficiency while with their regiments, we observe that it is stated in the Report for the South-Eastern District—"The pressing need of soldiers for active and foreign service has interfered materially with the supervision medical officers have been directed to exercise over recruits, many having been sent to join the service companies *before they have been even a month enlisted*. General Order 133 of 1880, restricting the instruction in gymnastics to recruits who have passed their drill and recruits' musketry course, has had an important effect upon the attendance at the gymnasia. *Many recruits never go through the course at all.* In my opinion, the rule might be relaxed with advantage." We cannot but agree with the medical officer, if physical prowess is in the future to count for anything in the battle-field. The time may come when science will be able to dispense with muscle, and the Intelligence Department may need no grown men in the ranks; but that time has hardly yet arrived. Undoubtedly the recruits who have to uphold the banner of the Empire need training and feeding before they can be considered fit for a hand-to-hand struggle with such men as the Boers; and lads who have been but a month enlisted can add little to anything but the "paper" strength of the service companies. There must be an enormous proportion of weakly men or boys among the candidates for the Army. We notice "that the total number of recruits inspected during the year, as shown by the annual returns, was 46,108, and of these 18,794, or 407·61 per 1000, were rejected. The total proportion of rejections is indeed higher than that for the previous year by 44·88 per 1000." It is impossible to believe that anything but dire necessity drove these poor creatures to the recruiting office. Of the number of applicants, 27,885 were labourers and husbandmen by profession, and 10,165 of these were found unfit for soldiers. It is but fair to suppose that those who were accepted required more than a short month's training before they were sent to join the service companies.

The mortality for 1880 exhibits the usual contrasts—it varies from 6·83 per 1000 in the United Kingdom, to 24·65 in India. There is even a greater mortality recorded for the Cape and St. Helena, and also for Ceylon; but at the Cape the circumstances were exceptional, and the number of troops at Ceylon is always small. But for us the Indian mortality points a moral, for where death is so frequent, disease must be more frequent still; and we cannot but fear that the prospects of the soldier who re-enters civil life after service in the East are very poor indeed. It is not climate only which deteriorates the soldier in India. In the Sanitary Report for Bengal it is stated that the large group of nervous diseases is greatly due to excess in food as well as in drink. Dr. Crawford writes:—"There are many circumstances of a soldier's life in the tropics which necessitate exposure to the sun, and aggravating circumstances of dress, disease, diet, duty, and discomfort are not wanting, but the opinion is very general that the main cause of heat-apoplexy is repletion both of food and drink, which is superadded to heat." It is curious to observe the statistics regarding Cyprus. This much-abused island now heads the list of healthy stations, and the ratio of mortality is but 2·26 per 1000. When it is remembered that in 1879 the rate was 21·20, it seems justifiable to conclude that Sanitation has achieved a great triumph over Malaria.

The most interesting portion of the present annual Blue-book is to be found in the Appendix. The report on the progress of hygiene, by Prof. F. de Chaumont, contains a valuable review of the paper which Prof. Max v. Pettenkofer read before the Medical Society of Munich, "On Cholera and its Relation to the Parasitic Theory," and to this report we more fully refer hereafter. Surgeon-General Crawford, in an important article on the Hospital Organisation, Sanitation, and Medical History of the Wars in Afghanistan, denounces strongly the dual system of supervision, and while expressing his surprise that the medical service was as satisfactory as, on the whole, it was reported to be, adds significantly—"Nevertheless, frequent references were necessary to the respective heads of the British and Indian Medical Services, sometimes to one and sometimes to the other authority, occasioning the delays and inconveniences of a divided authority, which might at any time, through divergence of opinion, have become dangerously obstructive. It was due to this anomaly that two systems—regimental for native troops, and general for Europeans—obtained." We notice that Dr. Crawford is not altogether professionally satisfied with the short-service system, for he says—"As far as susceptibility to climatic disease on the one hand, and inefficiency in the field from lack of power to withstand fatigue and hardship on the other, the young and unacclimatised corps and soldiers of the present day contrast unfavourably with the older and acclimatised corps and men of the past or present time. Such appears to have been the experience of the present war, as well as the general opinion of the medical officers, as expressed in their reports on the subject. The soldier is subject to the same law as the inferior animals, viz., that the adult and matured possess powers of endurance which the young and immature do not, and *a soldier under twenty-three years of age is consequently relatively inefficient in the field.*"

Dr. Crawford's Report concludes with a most suggestive summary of medical requirements on service in India, derived from the experience of the Afghan campaign. We notice his recommendation that the doolie-bearers should be organised, and have native non-commissioned officers attached to them; and we are entirely of his opinion, that all medical officers and medical subordinates should be mounted. It is, he says, "perhaps more necessary in their case than in that of any other class of officers." We trust, however, that the "Service" papers will not mistake the purpose of the horse allowance, and jump to the conclusion

that the doctors wish to act as heavy cavalry, and supersede the dragoons.

The Report on the Medical Transactions in Natal and the Transvaal during the Boer Rebellion, by Deputy Surgeon-General Holloway, explains the reasons of the alleged shortcomings of the Army Hospital Corps, whose numbers and appliances were short, and had to be supplemented by native bearers and ox-ambulances. And to medical readers the paper will be especially interesting, as it contains the particulars of the deaths of two medical officers, who were mortally wounded when fearlessly doing their duty. The last words of the "non-combatant officer"—the army surgeon, who, when he knew that he was mortally wounded, said to the soldier nearest him, "I am dying. Do what you can for the wounded; I cannot assist you. Let my friends know I was doing my duty when shot,"—are words as worthy of record as any that ever fell from the lips of a dying warrior.

THE WEEK

TOPICS OF THE DAY.

At a recent very numerously attended meeting of the Sanitary Board for St. Pancras, Dr. Shirley Murphy, the Medical Officer of Health, brought up a report on the health of the district, showing that although the death-rate of St. Pancras was higher than the average death-rate of London, the district could boast the most perfect immunity from small-pox mortality, not a single death having been registered from that disease during the past five weeks. The lessening prevalence of, and mortality from, small-pox were also spoken of by Mr. Andrew Wentzell, the Hackney member of the Metropolitan Asylums Board, at the meeting of the Hackney Board of Guardians last week. Both Dr. Murphy and Mr. Wentzell, however, drew attention to the serious prevalence of scarlet fever in the metropolis, and each of them reminded the respective sanitary authorities that increased precautions were necessary. One of the worst districts for fever in the metropolis is the Holborn union of parishes, including St. Luke's (Old-street), Clerkenwell, and the Holborn (City of London) parishes. Hampstead Hospital is the nearest Asylums Board Hospital for these parishes, as it is for Islington, which also is supplying a large number of fever cases at the present time to the hospitals of the Asylums Board. It seems fortunate, therefore, that the application recently made to the Local Government Board for authority to re-open the Hampstead Hospital for the reception of fever patient has been favourably entertained, as it will enable the Asylums Board to reduce the pressure now existing upon their other hospitals.

This is the way in which the Metropolitan Asylums Managers and the Local Government Board look at the matter. But the intention of re-opening Hampstead Hospital for scarlet-fever patients is regarded in a very different light in the neighbourhood of the Hospital; and the matter has been discussed at a meeting of the Hampstead representative Vestry. It was stated that a contract had already been accepted for furnishing the Hospital to receive patients, and that therefore the Vestry ought to raise an opposition to such a use of the buildings. A gentleman present observed, however, that the injunction against the use of the Hospital for cases of infectious disease had been removed by recent litigation, and he thought the Vestry could only take steps to see that all proper precautions were observed, with a view to an application for a fresh injunction if they were not. The following resolution, to be presented to the Local Government Board, was moved and carried:—"That this Vestry learns with very great regret and alarm that the Metropolitan Asylums Board contemplate the opening of the disused hospital at Hampstead for patients suffering from scarlet fever or other infectious diseases, for parishes other than that of Hampstead; and earnestly desires that the Local Government Board will not permit the Hospital to be so used." In the course of the proceedings it was contended by several members present that greater danger to the neighbourhood was to be feared from the use of the Hospital for scarlet-fever patients than even when it was used for persons suffering from small-pox.

The third local Act of the session, to establish additional metropolitan fish markets, has just been issued. The arrangements for establishing the London Central Fish Market, Farringdon-street, and the market near the "Elephant and Castle," on the Surrey side of the Thames, have already been alluded to in previous issues. The third Act is to establish and regulate a fish market in the parish of St. Paul's, Shadwell, Tower Hamlets, and to make a new street and improve the existing streets, with landing-stairs near the market, to be called the London Riverside Fish Market. In the Act there are fifty-eight sections, with a schedule of the prescribed tolls to be levied. The compulsory purchase of property is limited to three years, and provision is made for the displacement of the labouring classes.

It has to be recorded that two successful cases of cremation have recently been carried out in England. The particulars have been communicated by an eye-witness, and the process in each case was watched attentively by Dr. Comyns Leach, Medical Officer of Health for the Sturminster district. Two ladies of Dorset, the wife and mother of an officer, had, before their decease, expressed a desire to be cremated: the former died in July, 1876, of cancer, and the latter of old age in 1877: and in the face of numerous difficulties, their relative determined to carry out their wishes. For this purpose, and presumably to give time for perfecting the arrangements, the bodies were not buried, but kept in a strongly built mausoleum in the grounds adjoining the officer's house. Each body was properly coffined in elm and lead, in order to avoid any violation of sanitary laws. On the evenings of October 8 and 9, all arrangements being complete, the cremations were carried out, in a simple and inexpensive furnace, not only without any nuisance to the neighbourhood, but without the slightest unpleasantness to those who stood within two feet of the operation. Though carried out under many difficulties, the operation is stated to have been well and quickly completed in each instance, nothing being left but perfectly calcined bones. In size the remains varied from pieces one inch and a half long to ashes and fine dust. The ashes of each body were collected with great care, and placed in a large china bowl, in which they are to remain until urns of an approved form are ready. Compared with the contents of many Roman and other cinerary urns, the ashes appeared greater in amount, and much more perfectly preserved—a fact attributed to complete and quick combustion, and to the bodies being kept from direct contact with the fire.

An animated discussion took place at a recent meeting of the St. Saviour's Board of Guardians, upon an application from the authorities of Guy's Hospital for a form to be signed, requiring the Guardians to pay one shilling per day for a pauper removed to the Hospital in order to have an operation performed. Mr. Stafford expressed an opinion that any person, rich or poor, when once inside the Hospital walls, was supposed to be treated without charge of any kind. Guy's was a well-endowed Hospital, the staff were paid large salaries, and he could not help thinking that the time had arrived when a better system of management should be introduced in the administration of that charity.

Mr. Searle said that if he sent his servant to the hospital he was not asked to pay one shilling per diem, and he did not see why this demand should be addressed to the Guardians: such a hospital as Guy's ought to be as free to the pauper as to the duke. It was consequently determined not to accede to the demand of the Hospital authorities. The Guardians did not choose to remember that admirably complete and well-officered hospitals—the new workhouse infirmaries—are now supplied for paupers. Guardians have no right whatever to claim from public hospitals relief or aid for paupers, who are provided for by the State.

The Holborn Union is not in accord with the Local Government Board on the subject of workhouse accommodation. A short time since the latter authority threatened to withdraw from the Holborn Union the benefit of the Common Poor Fund, unless adequate in-door accommodation was provided for able-bodied paupers; and it demanded that the Guardians should erect a workhouse on their own land at Upton for at least 600 inmates. This, it is estimated, would involve an expenditure of between one and two hundred thousand pounds; and as the building debt of the Union already reaches the latter figure, the ratepayers not unnaturally regard with alarm its further augmentation. As an alternative, it is suggested that a central office be established, to which the various clerks of guardians throughout the metropolis may transmit each week detailed statements of the number of in-door paupers chargeable to their unions, and the accommodation existing in their respective workhouses, in order that the surplus poor may be transferred, under a fixed rate of maintenance and uniform system of dietary treatment, to unions having vacant places. By this plan it is contended that the necessity for building costly workhouses would be avoided, and the poor-rate of the metropolis sensibly reduced. The scheme will, no doubt, seem charmingly perfect to many officials, and good people not simply Poor-law officials, such as the rigid Charity Organisation Society people; but is it not much too machine-like? The subject really at the bottom of the whole matter is, we take it, the old question of outdoor *versus* indoor relief.

It is announced that the report made by Dr. Barry to the Local Government Board on the outbreak of typhoid fever at Bangor has been received by the sanitary authorities of that place. Dr. Barry has no hesitation in ascribing the outbreak to the water-supply; this supply, so far back as May last, having been contaminated by the sewage of a house in which there was a patient suffering from enteric fever. He expresses regret that the Local Board did not accept the opinion then expressed, instead of ascribing the epidemic to meteorological and other causes.

A serious epidemic of scarlet fever is reported to have broken out at Leicester, and the authorities have issued notices calling upon the inhabitants to do their utmost to prevent the spread of the disease. Unfortunately the malady made its appearance at the Home for Penitent Females, where a large laundry is carried on for washing linen collected from families in the town. At the outset two cases occurred in this establishment, and as several others followed with alarming rapidity, all the patients were removed to the Borough Fever Hospital. Steps have been taken to disinfect all the linen at the laundry before returning it to the several owners.

"AFGHAN AND ZULU WAR MEMORIAL FUND."

It will be remembered that at the annual dinner of the Army Medical Department held in July, 1881, the Director-General expressed a hope that the officers would unite in erecting a memorial to their comrades who had lost their lives in the late campaigns in Afghanistan and South Africa; and that a small but strongly composed committee undertook to give effect to the proposal. At a meeting of this committee, held at Whitehall-yard on the 14th inst. (present, Surgeon-Generals Thomas Longmore, C.B., and J. Sinclair; and Deputy Surgeon-General J. O'Niel, C.B.), it was decided to close the subscription list on December 31 next. Officers who have not sent in their contributions are requested to do so before that date, to the Hon. Secretary (Brigade-Surgeon Alfred Clarke, Royal Military College, Sandhurst). The amount subscribed up to date is £450.

THE VISITATION OF THE EXAMINATIONS OF THE MEDICAL CORPORATIONS.

We have received, through the courtesy of the Registrar of the General Medical Council, a copy of the recently issued *complete* volume on the late visitation of examinations. It contains, in addition to the visitors' reports, the explanatory statement made to the Medical Council at their last session, the remarks made on the reports by the licensing bodies visited, and the visitors' final observations. The whole has been arranged with headings, marginal and shoulder notes, contents, and indexes, in the careful and complete way that characterises all the volumes brought out by the Registrar. As the subject of the volume is connected with matters now especially before the medical world, our readers may be glad to know that the work is on sale, and may be obtained at the office of the General Medical Council, 299, Oxford-street, W., or of the Council's publishers, Spottiswoode and Co., 30, Parliament-street, S.W.

THE METROPOLITAN ASYLUMS BOARD.

At the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last, a letter was read from the Local Government Board, asking for observations upon a report from their inspector, Dr. Bridges, upon the outbreak of small-pox in the fever wards of Homerton Hospital. It appeared that no fewer than twelve scarlet-fever patients had contracted small-pox in this Hospital, and of that number two had died. Dr. Bridges further reported that, of these twelve cases, nine had occurred in that portion of the Hospital nearest to the small-pox wards. The letter was referred to the Homerton Committee for explanation. With respect also to the reopening of the Hampstead and Fulham Hospitals of the Board, the Local Government Board submitted correspondence addressed to them, for the Managers' observations. The correspondence referred to was from Mr. Pearson Hill, strongly objecting to the reopening of the Hampstead Hospital. The Chairman deprecated any controversy with Mr. Hill; they had taken counsel's advice, and if the Board was prepared to carry out its duty with regard to the reopening of the Fulham and Hampstead Hospitals, he thought they could not do better than resolve—"That the Local Government Board be informed that, as the Board is already in possession of the views of the Managers as to the desirability and necessity, under the existing pressure, of reopening Hampstead Hospital for the reception of fever cases, they have no observations to make on Mr. Hill's letters." Sir E. H. Currie seconded the resolution, which was adopted without discussion. Another letter was read, inquiring whether it was intended to limit the patients received at Fulham Hospital to a radius of one mile, and threatening legal proceedings if such was not to be the case. The Chairman remarked that if they bound themselves to such a promise there would be no possible reason for refusing similar requests from other localities with regard to the other hospitals

of the Board. He proposed, therefore, that a reply should be sent, stating that the Board would use the Hospital as far as possible for those cases occurring in parishes adjacent to the Hospital; and this was unanimously agreed to. The fortnightly return of the number of fever cases remaining under treatment in the several hospitals of the Board showed an increase of seventy-nine upon the past fortnight, the total being 613. There were eighty-five cases of small-pox, or an increase of five since the last return.

TREATMENT OF GOÎTRE.

Dr. Grunmach, of Berlin, has employed an arsenical injection into the parenchyma of the enlarged thyroid body in more than one hundred cases. The injection consisted of one part of liquor potassæ arsenitis to three of water. This solution was made use of two or three times a week, to the amount of one-half to one-third of a Pravaz syringe full. The average total number of sittings was ten to fifteen. The evil effects sometimes seen after the use of iodine never once occurred with this arsenical preparation. The effect was to diminish the tumour about one to three centimetres all round, and to remove the obstruction to the breathing supposed to be due to pressure on the trachea. The general health of the anæmic patients was much improved.

THE ATHENS MEDICAL CONGRESS.

This, the newest arrival in this age of congresses, Dr. Stécoulis, writing in the Constantinople *Gazette Médicale d'Orient*, assures us was a great success. The Athens Medical Society having determined to try to bring together, at periodical meetings, the medical profession not only of the different provinces of the Hellenic State, but also their compatriots practising in the different regions of the East, issued invitations for a first meeting at Athens, which were so widely responded to that 150 practitioners assembled from the Greek provinces, Egypt, Smyrna, Constantinople, Crete, etc. Great exertions were made to render the occasion an imposing one, the authorities and the scientific societies rivalling each other in doing honour to their guests. The illumination of the Acropolis, banquets and *fêtes champêtres*, and the warm reception given by the press, rendered the meeting a memorable one. All this, however, did not prevent a due supply of scientific communications being read at the Congress, the dignitaries of the State and the municipal authorities taking part at the opening meeting, which was presided over by Dr. Anagnostakis, Professor of Ophthalmology in the University. Of course a little grandiloquence was to be expected, as when the President declared that "on the history of the intellectual life of New Greece this day should be inscribed, since, by the inauguration of a medical congress, Hellenism has made a step towards its ancestors, who were the creators of medical science. It thus gains its medical independence."

IODOFORMOMANIA.

Under this title, the *Presse Médicale Belge* (October 8) has an amusing article, declaring that, although undescribed by alienists, a disease exists which has committed great ravages, and especially in Germany. It may bear various names and appear in various forms, but at bottom it is always the same thing—a mania for a new medicine, leading to the unreflecting employment in all kinds of diseases, and for the fulfilment of the most opposite indications, of any remedy that has been recently discovered or has been revived into vogue. We saw, a few years ago, what happened with pilocarpin, which was so enthusiastically prescribed for every malady, and was expected to cure everything, even hydrophobia itself. Now it is iodoform which is making the round of pathology. We have only to glance at the German journals to see what is expected from it by our learned neighbours. Not content with employing it for wounds in every stage of their progress, for syphilis, and for diseases of the eyes and ears, it is used internally for diphtheria, ulcer of the stomach, diabetes, and tuberculosis; while, as with many it has acquired the reputation of destroying *microbes*, in the present rage for parasitic theories of disease it bids fair to successively invade the whole province of therapeutics. In the meantime thirteen deaths are known to have occurred by its agency, and these are not the only ones. Some one has said, "Use a remedy while its curative power remains," but for iodoform it will be more prudent to delay joining in this mad employment of it until it has ceased to kill.

"THE MEDICAL DIGEST."

The second edition of Dr. Neale's valuable work, "The Medical Digest," which appeared about three months ago, is in every way worthy of the attention of the profession. The first edition was published in 1877 by the New Sydenham Society, and the new edition carries the work down to the year 1881. It should be remembered that it is a *digest* of certain specified and widely-diffused journals, and not an index only. It is intended to afford a means of ready information regarding such discoveries, new doctrines, and different methods of treatment in each department of medical science as are likely to be of interest to the practitioner. It is a work of enormous labour, containing nearly 10,000 references, while the book itself has probably over 120,000 distinct entries. The original manuscript contained 1879 pages, each page having as a rule six divisions, and in a few instances twelve. Not a little useful information may be obtained from it even in the absence of the journals and other works referred to; but, of course, its value would be largely increased were the journals at hand, and journals may be kept and bound for a very trifling expense. The way in which the work (published by Ledger, Smith, and Co., St. Mary Axe, London) has been brought out, as regards clearness of typography, etc., does great credit to all concerned in its production.

THE PARIS WEEKLY RETURN.

The number of deaths for the fortieth week of 1882, terminating October 5, was 1018 (518 males and 500 females), and among these there were from typhoid fever 134, small-pox 5, measles 6, scarlatina 2, pertussis 5, diphtheria and croup 23, erysipelas 5, and puerperal infections 5. There were also 39 from acute and tubercular meningitis, 179 from phthisis, 19 from acute bronchitis, 30 from pneumonia, 92 from infantile athrepsia (33 of the infants having been wholly or partially suckled), and 23 violent deaths (21 males and 2 females). This week the number of deaths has mounted up above the mean of the four preceding weeks, those from typhoid fever having increased from the 57 of the last week to 134—the admission into the hospitals having increased also from 213 to 536. Thus the epidemic, the diminution of the ravages of which during several weeks gave rise to the hope of a speedy reduction to the normal weekly mean of deaths from this cause (about 30), has in the course of a few days assumed an extraordinary development, having increased by 77 the already large number of deaths of the preceding week. Not only have the admissions to the hospitals increased to 536, but the number of cases reported by practitioners amounted to 335, which, although a remarkable number, does not express the extent of the prevalence, as, in spite of the great advantage they would receive from accurate statistics of the epidemic, a great

number of practitioners neglect to avail themselves of the facilities furnished them of making known the cases that occur. The births for the week amounted to 1178, viz., 616 males (462 legitimate and 154 illegitimate) and 562 females (409 legitimate and 153 illegitimate): 125 infants were either born dead or died within twenty-four hours, viz., 74 males (43 legitimate and 31 illegitimate) and 51 females (38 legitimate and 13 illegitimate).

THE PATHOLOGY OF CARDIAC HÆMIC MURMURS.

Dr. Balfour, in a paper on this subject (*Edinburgh Medical Journal*, October, 1882), arrives at the conclusion that the earliest cardiac sign in chlorosis is an accentuated pulmonary second sound, soon followed by a systolic murmur at the second left interspace, from one to two inches from the sternum, and here in most cases some pulsation may be felt. This is what he considers the primary chlorotic murmur. He points out that this murmur has long been recognised as produced in the appendix of the left auricle in cases of dilatation from mitral constriction, and he accepts Naunyn's explanation of the sign, viz., "That the fluid veins formed at the mitral orifice impinge upon the tense auricular wall, and throw it into sonorous vibrations, which are conveyed to the chest-wall by the appendix of the left auricle, which lies in contact with it at the base of the heart." He considers that the same explanation would hold good for the primary hæmic murmur for the following reasons:—1. In chlorosis the heart is dilated and hypertrophied, and the primary murmurs are certainly not arterial in character; 2. The position of the maximum intensity of the primary hæmic murmur and of Naunyn's murmur is precisely the same; and 3. The graphic record of the pulsation in both classes of cases is similar. "My argument," he says in his concluding paragraph, "is that the cardiac murmurs of chlorosis are formed in a dilated and hypertrophied heart, and that the primary position of the murmur is in by far the larger proportion of cases, if not in all, to be found over the left auricular appendix, where it comes up from behind just to the left of the pulmonary artery. . . . I now leave this theory with my professional brethren, assured that, if not now, at least ere long it will be universally adopted."

THE LIVERPOOL HEALTH-REPORT FOR THE YEAR 1881.

The annual report on the health of Liverpool for the year 1881, by the Medical Officer of Health (Dr. J. Stopford Taylor), records that, so far as that locality is concerned, the year under notice has been one of considerable anxiety, owing to the increased prevalence of fever—notably typhus—and an outbreak of small-pox, which at one time threatened a serious epidemic. Fortunately, the active operations of the vaccination officers, and the facilities afforded by the Committee of the Netherfield Institution for the isolation of patients, by devoting their wards for a time to the reception of small-pox cases only, were sufficient to check the spread of the disease, and confine it within reasonable limits. The large amount of emigration and immigration from and to the port of Liverpool renders the town peculiarly susceptible to any epidemic of this description. In the present instance the outbreak may be said to have commenced with the landing of six cases from the ship *Belvidere* on March 14, from which time it gradually spread until during the months of June and July 164 cases were reported; only 51 cases, however, were recorded for the remainder of the year, making the number which came under notice 262 in all—though, the report adds, no doubt other cases occurred in private houses, of which no return was made. The total number of deaths from small-pox was 35. Notwithstanding the drawbacks thus enumerated, the death-rate of the district was only equal to 26·6 per 1000—a number which, though considerably in excess of the metropolitan rate, is yet very much under what has had to be recorded for Liverpool in previous years. During the year 1881 the Town Council voted £5000 for the purchase and demolition of such insanitary property as the Health Committee thought desirable; and with this sum 128 houses were purchased, of which 117 were acquired in the period, and of these 12 were demolished. The natural increase of the population during 1881 by the excess of births over deaths was 6029.

GRAFTING SKIN FROM A RABBIT.

Dr. Lamallerée, of Paris, has recently successfully employed grafts from the skin of the rabbit to excite cicatrisation in the human subject (*Deutsche Med. Zeit.*, No. 40). The patient had suffered for six years from a varicose ulcer of the leg, which had resisted all sorts of treatment. Six bits of skin from the belly (previously shaved) of a rabbit, and two from the skin of the human forearm, were grafted on the surface of the granulating ulcer, with the proper antiseptic precautions. At the end of eight days the pieces of skin from the rodent had taken root and were growing, those from the man had not. After eight days more an island of new skin was to be seen (ten centimetres long and seven wide) in the centre of the sore. The healing went on to complete cicatrisation, and the newly formed epidermis evinced no trace of its lowly origin.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

At the annual stated meeting of the College, held on St. Luke's-day, Wednesday, October 18, 1882, the following were elected officers for the ensuing year:—*President:* William Moore, M.D. *Censors:* Francis Robert Cruise, M.D. (Vice-President); Arthur Wynne Foot, M.D.; Christopher J. Nixon, M.B.; and Fleetwood Churchill, F.K.Q.C.P. *Additional Examiners:* Drs. Churchill, Cruise, Foot, Nixon, Finny (in Medicine), Macan (in Midwifery), Purser (in Physiology), W. G. Smith (in Chemistry), and Duffey (in Materia Medica). *Examiners in Midwifery:* John Rutherfoord Kirkpatrick, M.B., King's Professor of Midwifery; and Stephen M. MacSwiney, M.D. *Registrar:* John William Moore, M.D. *Treasurer:* Aquilla Smith, M.D. *Professor of Medical Jurisprudence:* Robert Travers, M.A., M.B. *Representative on the General Medical Council:* Aquilla Smith, M.D. *Agent to the Trust Estates:* Charles Uniacke Townsend, Esq. *Law Agents:* Messrs. Stephen Gordon and Sons. Dr. John Henry Chapman, Licentiate and Member of the College, having been balloted for, was duly elected a Fellow of the College.

ON THE LOCALISATION OF APHASIA ASSOCIATED WITH HEMIANÆSTHESIA OR HEMICHOREA.

M. Brissaud has published (*Progrès Médical*, No. 40) a most interesting communication on the above subject. The combination of hemianæsthesia with aphasia without motor paralysis is decidedly rare, and though M. Brissaud himself has not as yet any pathological proof of the mode of causation, yet as cases do occur, he has come forward to offer an explanation of them. Commencing with a cortical lesion, he points out how well-nigh impossible it is that a single cortical lesion should produce the two symptoms in question without any motor paralysis; and the theory of a double simultaneous lesion avoiding the motor area seems so extremely improbable that it may be put on one side. We cannot, then, frame any cortical lesion that would satisfactorily produce this combination. And as nothing short of two separate and distinct lesions in the white matter of

the centrum ovale could account for the association, we may on the same grounds abandon this region. He then passes to consider whether a central lesion will satisfy the conditions. And in the first place he notes that Flechsig's horizontal section as a rule gives more valuable information than is to be obtained from the vertical sections of Pitres. Then he points out that the posterior third of the posterior half of the internal capsule contains sensory fibres, whilst the anterior two-thirds contain motor fibres; and that at the bend, where the anterior and posterior segments of the capsule meet, is to be found a bundle of fibres coming from the foot of the third frontal convolution. He also directs attention to the arciform arrangement of the white fibres of the lenticular nucleus, and observes that in old people it is not very uncommon to see in the lenticular nucleus small, incurved, linear, hæmorrhagic scars, having their convexity towards the internal capsule. Now, to produce the combination of symptoms under consideration it only requires that one end of the hæmorrhagic are (if we may so call it) should reach the bend of the capsule, whilst the other should reach the sensory area, leaving the intervening pyramidal tract unaffected. Nor is this hypothesis put forward without good justification, for in a case where hemianæsthesia was the only symptom, a hæmorrhagic are was found in the lenticular nucleus, one extremity of which involved the sensory area of the internal capsule, whilst the other did not reach it anywhere; and a still stronger argument is afforded by a case of aphasia and hemichorea without paralysis, in which, on autopsy, M. Brissaud found a hæmorrhage forming an arc in the lenticular nucleus, extending at one end into the bend of the internal capsule, and at the other to midway between the pyramidal tract and the sensory area, or just to the spot, lesion of which, as is already known, produces hemichorea. We need hardly observe that all these remarks apply to the left hemisphere.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY court of the directors of this Society was held on Wednesday, October 11, at 5 p.m., in the rooms of the Royal Medical and Chirurgical Society. The chair was taken by the President, Sir George Burrows, Bart. Two new members were elected. The death of one widow was reported, and two orphans had ceased to be eligible for further grants. Applications for grants were received from sixty-one widows, five orphans, and three orphans on the Copeland Fund; and it was resolved that a sum of £1259 10s. be recommended for distribution at the next quarterly meeting. The quarterly expenses amounted to £34 17s. The state of the funds permitting, it was resolved on the motion of the acting Treasurer to make a Christmas present to the widows and orphans in December next. The report of the committee on the revision of the by-laws was considered, and it was resolved that many important alterations should be submitted for approval to a general meeting of the Society.

TABES DORSALIS IN INFANCY.

DR. LEUBUSCHER, of Jena, records, as an example of locomotor ataxy, the following case (*Berlin. Klin. Woch.*, No. 30). A boy aged three years and a half was brought to the Polyclinic because he had been unable to walk properly for six weeks. There had been nothing to account for this, if we except a trifling cut on the right knee. There were three sisters (no brothers), and these, together with rest of the family history, presented nothing relevant. The chief symptoms were an inability to walk, especially in the dark or with the eyes shut; there was a little incoordination of the movements of the upper extremities, and some defect of speech, whose incidence (the parents said) was coincident with the disturbance of the boy's gait. The bad gait was not to be attributed to a want of power in the legs. The knee-phenomena as well as the foot-phenomena were *not* to be obtained. The superficial reflexes were normal. Sensation, so far as could be made out, was perfect. Micturition and defæcation were naturally performed. There was no disease of any other organ. Under the use of a weak galvanic current, marked improvement took place in the lower extremities, without any change in the affection of the arms or speech. The question naturally arises as to what the real nature of the above case is. Friedreich, Seligmüller, and others have made us acquainted with a form of ataxy which comes on in early life (though not so soon as three years and a half), and persists; and, from the fact that several male members of the same family had been affected, Friedreich has introduced the name of "hereditary ataxia." Sore throats, even diphtheritic ones, easily escape the notice of both children and their parents. The case recorded was of very rapid onset, and improved to a great extent in four weeks (the end of the case is not forthcoming). The above considerations weigh very strongly with us. We have at least one case in memory which presented rapidly developed *ataxic gait*, and completely recovered in three months without any special treatment. This instance, too, had no previous family history throwing light upon it, and, indeed, was regarded by more than one who saw it as a commencing tumour of the cerebellum. That such affections of the nervous system—*i.e.*, ataxy, rather than palsy or other morbidity—can and do occur as in some way or other sequent to, and probably depending on, acute illnesses, we think there can be no doubt, granting at the same time that our knowledge of post-febrile neurotic diseases is still in its infancy.

THE YELLOW FEVER IN THE UNITED STATES.

THE *Louisville Med. News* (September 30) observes that—"Theories of origin aside, there is no question as to the value of depopulation and quarantine, so far as the present epidemic is concerned. Hundreds of the inhabitants have sought safety in flight. The garrison of Fort Brown, by moving several miles up the Rio Grande, has escaped infection. The United States soldiers and marines at Pensacola embarked for Mount Vernon barracks, Alabama, on the day after the presence of the fever was officially promulgated, and are safe. The navy-yard has been quarantined against the city, and late advices from Surgeon Owen, of the United States Navy, show the quarantine to be effective. Up to the date of going to press there is no account of any case outside of a limited area of country around the places first infected."

THE BYE-PRODUCTS OF THE FERMENTATION OF STARCHY MATTERS.

THE action of the impurities of potato spirit on the human body has lately been carefully investigated by Dr. Brockhaus of Godesburg, in a series of experiments on his own person, narrated in detail in the *Centralblatt für allgemeine Gesundheitspflege*, 1 Jahre, V. Heft, 1882. It has long been universally held that the almost poisonous effects of spirits distilled from potatoes or corn without subsequent purification of the crude product are owing to the presence of certain bye-products, especially amylic alcohol, the chief ingredient of the so-called fusel oil; and the general opinion has been confirmed by the experiments of Magnus Huss, Pelletan, and others, on animals. Dr. Brockhaus, however, considers that though observations on the lower animals may, with certain limitations, be accepted in regard to the action of a drug on single organs, as the heart,

they are of little value when we would study their effects on the organism as a whole, and especially on the central nervous system, and *à fortiori* on the mental faculties. The only recorded observations of the kind made on man are, he considers, wanting in scientific precision, and in them the crude fusel oil, a mixture of several alcohols, was employed. Dr. Brockhaus therefore resolved to institute a series of careful experiments with each of the bye-products of fermentation of starchy matters, which he obtained in a state of chemical purity from the manufactory of Kahlbaum at Berlin, under the advice and direction of Professor Binz of Bonn. Dr. Brockhaus is a man of unusually powerful and robust constitution, and accustomed to the daily use of wine and beer in moderation; and, *teste* such personal experimentation as this, he is an enthusiast in scientific research. The bodies with which he experimented were aldehyd, paraldehyd, and acetal; the constituents of fusel oil, viz., propylalcohol, isobutylalcohol, and amylalcohol, and, inadvertently, allylalcohol. Each was taken in water, in cognac (pure brandy), and in light Rhine wine (the quantity of the two latter vehicles being such as he found by previous trials to have no appreciable effect on himself), in appropriate doses, at regular intervals, either in the morning fasting, or on other days after dinner in the evening, strict notes being taken, at the time, of the doses, mode of administration, and effects produced. There is, as might have been expected, a great sameness in the symptoms, but the action of aldehyd presents some peculiarities. Its effects were speedily developed, but passed off in a very short time. The taste, however, was so pungent as to be almost unbearable when fifteen drops only were dissolved in 150 grammes of water, though more tolerable in wine or brandy. His experience went far to confirm the probability of Pierre's statement, that in some of the low spirit-shops of Rouen the customers, after being served with brandy highly charged with aldehyd, are hurried out into the street, where they fall senseless within a few minutes; and many cases where the victims are supposed to have been drugged may be explained in this way. To the presence of aldehyd, which subsequently undergoes acetification, Dr. Brockhaus attributes the intense and early intoxication produced by some new wines, which, when matured, are harmless. Paraldehyd and acetal resemble aldehyd, but the taste and effects are milder, though the latter last longer. Of the constituents of fusel oil, propyl and isobutyl alcohols seem to exert a less influence on the mental, though a greater on the digestive, functions than the foregoing; but that the general effects of fusel oil are mainly owing to the amylalcohol, Dr. Brockhaus's experience amply proves. In the case of allylalcohol, which he on one occasion took by mistake for amylic, there was superadded to the usual symptoms of the latter a weakness of the limbs approaching paralysis. This substance is marked by a strong pungent odour resembling that of oil of mustard. Allylalcohol is used in Germany to render spirits unfit for drinking, as the crude methylic is with us, but Huss mentions an instance of brandy prepared from diseased potatoes in 1849, which produced remarkably toxic effects, attended by alliaceous eructations, the cause of which was at the time unsolved, though very probably due to the formation of allyl. Dr. Brockhaus, quoting Rabuteau and F. O. Smith, urges that, the ordinary methods of purification employed—including that by charcoal—being inadequate to the entire removal of these impurities, the sale of potato spirit for other than use in the arts should be forbidden.

THE TYPHOID FEVER IN PARIS.

Our readers will perceive by our Paris weekly report that typhoid fever is again greatly in the ascendant. The *Progrès Médical* of October 14 states that from actual inquiries it had learned that in the hospitals for adults and children there were then 2074 cases, as many as 283 cases having been received during October 10 and 11. It accuses the Assistance Publique of having, with its habitual dilatoriness, neglected to make proper provision for such an emergency, although warned long since of the necessity of doing so. Now all is hurry and confusion. The chronic cases which have long encumbered the hospitals are suddenly swept into the Salpêtrière and Bicêtre, where the refectories, etc., have had to be converted into sleeping-rooms, and repairs which should have been done in the summer are hastened on. Supplementary hospitals are also re-opened, and hospital-sheds are erecting at the Lourcine, St. Louis, Cochin, etc.

THE ROYAL INFIRMARY, EDINBURGH.

At a meeting of the Managers of the Edinburgh Royal Infirmary, on the 16th inst., Dr. Charles Watson Macgillivray was unanimously appointed to the vacant post of Assistant-Surgeon, and Dr. Byrom Bramwell to the office of Pathologist, to the Infirmary.

NAPHTOL FOR SKIN DISEASES.

Kaposi (*Wiener Med. Woch.*) has treated 710 cases of skin disease with naphtol, from April, 1881, to March, 1882. He lays stress on the following points:—Only β-naphtol should be used; the alcoholic solution must not be stronger than 1 per cent., whilst the liniment or ointment may be of the strength of 15 per cent. The stronger preparations must not be applied to the surface of the whole body at once; the presence of inflammatory irritation is a contra-indication for its use, as also is the case if the drug provoke strong irritation on a healthy skin (idiosyncrasy). The medicament has been found very effective in parasitic diseases. In scabies it suffices to apply the following prescription once:—℞. β-Naphtol 15, pulv. cret. alb. 10, sapo virid. 50, lard 100. A mixture of five naphtol to fifty olive oil may be used against pediculi. Tinea tonsurans (squamosus et vesiculosus) may be treated with 1 per cent. alcoholic solution brushed on four to six times in two to three days, or friction with the naphtol-soap, the foam being left. The alcoholic preparation must not be used for pityriasis versicolor, but the following mixture:—℞. Sapo virid. 100, naphtol 2, spir. lavand. 10,—which should be rubbed in for two or three nights, and the parts covered with lint. Tinea tonsurans of the hairy scalp is favourably dealt with by the oily or soapy preparation. Favus masses must first be softened with the naphtol oil (1 per cent.), then the scalp washed with the naphtol soap, and, finally, a paste (℞. naphtol 1, spirit. sapo calin. 20, spirit. vini 50, balsam Peruv. 2, sulphur sublim. 10) laid on. Specially favourable is the use of this remedy in prurigo and ichthyosis; it not only hastens the cure, but is less uncleanly than tar and sulphur—a 2 to 5 per cent. salve (according to age), alternating with one or two baths a week, in which the affected parts are first rubbed with the soap made of naphtol and sulphur, and then washed off with ordinary soap. The agent has been used in other affections—eczema (it is good in the very chronic form), seborrhœa, acne vulgaris and rosacea, lupus, sycosis,—but with less brilliant success.

Her Majesty has been graciously pleased to give directions for the appointment of James Mackie, Esq., M.B., Physician to Her Majesty's Consulate at Alexandria, to be an Ordinary Member of the Third Class, and Companion of the Most Distinguished Order of St. Michael and St. George.

At a Congregation held at the University of Cambridge on the 12th inst., Mr. P. T. Main (St. John's), Mr. S. H. Vines (Christ's), and Mr. W. Garnett (St. John's) were appointed Examiners for the First M.B. Examination. For the Second M.B. Examination—Dr. Watney (St. John's), Mr. Shuter (Corpus Christi), and Mr. A. M. Marshall (St. John's). For the Third M.B. Examination—Dr. Reginald Thompson (Trinity), Dr. Galabin (Trinity), and Mr. Handfield Jones, M.B. (St. Catherine's). Mr. Luther Holden and Mr. Thomas Bryant were also appointed Examiners for Medical and Surgical Degrees. Dr. Cheadle, of Gonville and Caius, was appointed Assessor to the Regius Professor of Physic. The degree of M.D. was conferred on Charles Clement Lapage, of Magdalen College; and the degree of M.B. upon John Grissell Marshall, of Clare.

The Wrexham Corporation on Saturday last gave instructions for the preparation of plans for a new sewerage scheme, with the view of ending the dispute between them and Colonel Jones, tenant of Borough Farm, and to prevent the pollution of the river Dee, complained of by the Chester Corporation.

The scarlet-fever epidemic at Accrington continues to be so alarming, and to spread so widely, that the Health Committee have decided that the schools must again be closed. It was stated at a meeting of the Health Committee, on the 18th inst., that since the commencement of the epidemic more than five hundred cases of scarlet fever had been reported, and the fatal cases had numbered between ninety and one hundred.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Parsons on Diphtheria at Sutton-in-Ashfield.

In April of the present year an epidemic of diphtheria was reported by the Medical Officer of Health of Sutton-in-Ashfield as existing in that district, and Dr. Parsons received instructions from the Local Government Board to proceed to the spot, and inquire into the circumstances of the case. At the same time he was directed especially to note the relations of the disease to school attendance, and to consider the measures proper to be taken in similar cases to prevent the propagation of infection by that means. Sutton-in-Ashfield is a small market town and urban sanitary district on the western border of Nottinghamshire, three miles south-west of Mansfield, having a population of 8523. The collieries and several of the principal works in which the inhabitants are employed are situated in other districts; hence, in proportion to the number of inhabitants, its resources are small, and this circumstance places considerable difficulty in the way of carrying out the necessary works of sanitary improvement. This, indeed, is the reason alleged why so few of the improvements which have been from time to time urged upon the Sanitary Authority have been proceeded with. It unfortunately happened that during the early part of the present year the Medical Officer of Health had been suffering from illness, and had been away from home until the beginning of April; and in his absence the epidemic had been suffered to develope itself unwatched and unchecked. It appeared that from November, 1881, to May, 1882, there had occurred in the district thirty-nine cases diagnosed as diphtheria, in thirty households, with eleven deaths; and twenty-seven cases of scarlet fever, in eighteen households, with four deaths. The origin of the epidemic, Dr. Parsons observes, cannot be definitely stated; diphtheria was not confined to any one part of the town; cases occurred in the old and closely-built nucleus and in new suburbs in the low-lying ground below the town, also in other suburbs in elevated and open situations to the west. Sanitary defects of various kinds, such as polluted or suspicious water-supply, badly made privies, foul, badly made, and untrapped drains, and general dirtiness of house and surroundings, were met with in a large majority of the houses in which diphtheria had occurred; but it had to be admitted that there was no reason for believing them to have been worse than other houses which entirely escaped the disease. In only one instance did suspicion attach to the milk-supply. Careful inquiry elicited the fact that in the majority of cases the diphtheria patients were not attending school. When questioned as to the movements of the children when not at school, the mothers admitted that they played about the streets with other children, and that they could not tell where they went to. They must, therefore, have had many opportunities of coming in contact with noxious matters, or with persons in an infectious condition. At the request of the chairman, Dr. Parsons attended a meeting of the Sanitary Authority before leaving the town, for the purpose of conferring with them as to the measures to be taken with the view of checking the outbreak. With regard to schools, he advised that an endeavour should be made to obtain the closing of one, on account of the presence of scarlet fever in the master's house; in other cases that additional caution should be enjoined upon masters and mistresses in inspecting the children to ascertain any visible symptoms of disease. The other recommendations of Dr. Parsons had reference to the usual subjects of water-supply, sewerage, and improved construction of privies.

Dr. Airy on the Sanitary State of Hull.

The chief cause of the inquiry, instituted by Dr. Airy at the commencement of the present year, into the sanitary state of Hull, was the occurrence of a very serious epidemic of scarlet fever in and around that town in the last six months of 1881. In that short period no less than 689 deaths were registered from scarlet fever in the Hull and Sculcoates registration districts; and of these 640 were in the borough of Kingston-upon-Hull. Locally, the inquiry was considered of so much importance, that Dr. Airy was solicited to hold it in public, and, with the sanction of the Local Government Board, this was accordingly done. Moreover, memorials were presented to Dr. Airy from the medical profession of the town, and from a number of the clergy of the rural deanery of Hull, expressing satisfaction that the inquiry was to be held, and pointing out much that was defective in the district, and which required to be modified. In a brief notice of the report, such as the present, it would be impossible to recapitulate the whole of the details investigated by Dr. Airy: these included the usual items of water-supply, sewerage, etc., as a matter of course; but in addition it was brought to light that the practice had been largely followed of denuding the fields, on which much of the town was afterwards built, of valuable brick-earth for conversion into bricks, and, as it became necessary to absorb the old disused brickfields for "eligible building sites," the original level was restored by shooting into the hollows the rubbish and refuse of the town, consisting, in a large seaport like Hull, conspicuously of fish-heads and bad oranges. On such a foundation many of the back streets of Hull are built. It appeared that scarlet fever, which is never wholly absent from the town, caused sixty-one deaths in 1880. It increased slowly in the first half of 1881, principally in the districts where the largest number of houses are built on unwholesome ground. In July a rapid extension of the epidemic took place. For the most part the officers of the Sanitary Authority were not informed of the progress of the infection except by the death-returns of the registrars. Numbers of cases had no medical treatment; numbers that were treated privately were not notified to the sanitary officers. The infectious hospital, which at this time contained only twenty-one beds, was put in requisition for cases in newly invaded parts of the town. When the epidemic increased alarmingly in September, two new wards were rapidly erected to meet the emergency; but the disease was then beyond control, and practically it has had to burn itself out. The number of cases received in the hospital in the whole year was 156, of whom eighteen died; probably, Dr. Airy remarks, these might represent about one thirty-seventh of the whole outbreak. There was evidence, the report says, that, in spite of precautions taken by the School Board for the exclusion of all members of infected families, the schools

were instrumental in spreading the infection. It was not until the epidemic had reached its height that the schools, at the urgent request of the Sanitary Authority, were closed. They were reopened before the epidemic was over, and it was then observed that the number of cases began again to increase. From Hull the fever spread to the suburbs and surrounding villages, as far as could be traced, in most instances by personal conveyance; but there were not a few cases in which such conveyance could not be established. In spite of the fatal epidemic of last year, scarlet fever still shows for the last six years a lower death-rate than for the six preceding. The disease prevailed fatally in Hull in 1870, and again in 1874-75. After each storm came a lull of four or five years before the next arose. It would seem, Dr. Airy observes, as if each successive epidemic swept off, or protected against future infection, the bulk of the susceptible generation that had sprung up since the last preceding wave, and as if it needed a certain number of years before a new generation could come into being in sufficient numbers to feed a new flame of epidemic disease. If this view is sound, Dr. Airy adds, a recurrence of the outbreak may be looked for about 1887. His recommendations to the Sanitary Authority, if properly carried out, should enable that body to deal more successfully with such an epidemic than was the case with that of the past year.

FROM ABROAD.

The Paris Hospital Mortality Returns.

In his report for the second quarter of 1882, Dr. Du Castel reports (*Union Méd.*, September 3, 17, and October 1) that the temperature was slightly below the mean of the quarter, and that the fall of rain did not differ materially from the normal mean. The *general mortality* of the hospitals was considerable, and greatly exceeded that of the corresponding quarter of the preceding year, there having been 4261 deaths, in place of 3624, the increase appearing still greater when compared with the mean of the last ten years, which was 3580. But it must be borne in mind that the increase of hospital patients for some years past has obliged the Assistance Publique to maintain supplementary services almost constantly open, and to encumber the ordinary wards with temporary beds. The hospital population is therefore much larger than it was four or five years since, and the mortality is necessarily greater. Still, the mortality of this quarter has much exceeded what it ought to be if it had been merely proportionate to the increase of the hospital population.

1. *Affections of the Respiratory Organs.*—The deaths from these have been much more numerous than those for the corresponding quarter of last year. The admissions for phthisis were 2011 with 1079 deaths, in place of 1580 with 879 deaths in 1881; the admissions for pneumonia, 894 with 261 deaths, instead of 809 with 263 deaths; for bronchitis, 1436 admissions with 97 deaths, instead of 1450 admissions with 77 deaths; and for pleurisy, 511 admissions with 62 deaths, instead of 455 admissions with 43 deaths. The number of deaths from phthisis, therefore, was nearly a fourth greater than in 1881; and, during this quarter, rapid forms of the disease, and especially pneumonic phthisis, were of frequent occurrence. In June, hæmoptysis was exceptionally frequent. Pneumonia, bronchitis, and pleurisy, of frequent occurrence in April and May, became much less so in June with the return of warmth and dryness.

2. *Diphtheria and Croup.*—A greater number of cases of this disease are brought to the hospitals every year, and the mortality seems to increase with the number. While in this quarter of 1881 there were 343 cases with 212 deaths, or 61 per cent., in 1882 there were 378 with 267 deaths, or 70 per cent. In town there died 728, while in 1881 there were only 553, being an increase of more than a third. Although, as Dr. Besnier has shown, the spring season is that in which diphtheria is at its height, 728 deaths indicate a fearful progress of the disease.

3. *Eruptive Fevers.*—*Small-pox* has prevailed less severely than it did last year; for although there is a slight increase of cases in the quarter of this year compared with that of last (745 instead of 694), the mortality has been less—viz., 123 in place of 144, or 16 in place of 20 per cent. In town the mortality diminished from 296 to 258. *Scarlatina* has been much rarer in the hospitals than in the preceding year (161 cases in place of 214), but its gravity has increased, for the number of deaths has continued about the same—viz., 19 instead of 20, increasing the percentage from 9 to 11. In the town the disease has proved much less fatal, the deaths having decreased from 146 to 55. The admissions for *measles* have been numerous—viz., 274 instead of 105 in the former year. The mortality was, however, 18 per cent. in both years. A considerable increase of cases of erysipelas occurred in this quarter—viz., 484 in place of 349,—and with a mortality of 55 (11 per cent.) instead of 32 (9 per cent.).

4. *Typhoid Fever.*—Instead of observing its habitual remission in the spring season, typhoid fever underwent a marked exacerbation in June. In the hospitals the admissions doubled, and were increased during that month alone to the enormous number of 452, as compared with 221 in 1881. The deaths, which were 48, rose to 100; while in town during June there were 192 deaths, as compared with the 97 of last year. Seeing, as Dr. Besnier has repeatedly shown, that the spring quarter is habitually the epoch of the hypogee of typhoid, there is too much reason to fear that the epidemic is about to enter upon a new period of increase. During the quarter there were admitted 1135 cases (649 men, 378 women, 64 boys, and 44 girls), with 241 deaths (144 men, 79 women, 9 boys, and 9 girls), or 21 per cent. In town there were 554 deaths in the quarter, in place of 373 in 1881.

Colic in Children.

In a clinical lecture delivered by Hofrath Prof. Widerhofen, and reported in the *Allg. Wien. Med. Zeitung*, No. 22, we find the following observations:—

By the term colic we understand an intestinal neurosis originating in irritation of a chemical or mechanical kind of the sensory nerves of the mucous membrane of the intestinal canal. The causes of this irritation arise either in a changed condition of the mucous membrane or in the nature of the contents of the canal. There may also occur purely nervous colic, wherein neither irritating ingesta nor a pathological state of the canal is present, excitement of the central organs being propagated to the nerves of the canal. In infants who are at the breast it is indigestible milk, and especially when this is too rich in fatty matters, that causes the colic; and when children during the first six months are fed with amylaceous food, before a sufficiency of saliva is secreted, colic is also produced. This occurs, too, when indigestible matters are swallowed, such as sand, small pebbles, etc.; and we have good opportunities of observing the operation of this cause in idiots, who often swallow such objects in great numbers. And here we have to meet the question, whether during the period of lactation the mental emotions of the nurse may not induce colic in the infant. It is beyond doubt that frequent mental emotions may induce colic with convulsions, which may be explained by the changes that are induced in the secretion of the milk. In the group of colics induced by irritation caused by the contents of the canal must be included that caused by constipation, by worms, and by the presence of foreign bodies. Of the morbid conditions of the mucous membrane which give rise to colic, enteritis follicularis may be especially mentioned, and then scrofulous and catarrhal ulcers, the worst forms being observed in intussusception. Pure nervous colic appears in diseases of the spinal cord, and it may appear in an hysterical form, which is not so very rare, and also as intermittent colic, with as regular a rhythm as in intermittent fever. We may also include metallic colic, which certainly occurs far more frequently in children than it is diagnosed—as might be expected from the frequency with which toys are made of, or contain, lead. As regards diagnosis, the purely windy colic, produced by the collection of gases which distend the canal and irritate the sensory nerves, comes on with attacks of pain and with distension of the abdomen, ending with the expulsion of flatus. These attacks are paroxysmal, and are frequently accompanied by clonic convulsions, which may last for some minutes, and even for an hour or more. After the cessation of the paroxysm the child is either itself again, or may remain dull and feeble. In the intervals of the attacks there are no essential cerebral symptoms perceptible. The prognosis depends upon the nature of the cause, but it has been

questioned whether a colic of itself alone may not prove fatal. Through the long duration of the accompanying convulsions, through the shock and the exhaustion of the nervous system, death may follow, and at the post-mortem no anatomical cause of the fatal termination can be shown. Hysterical attacks of colic especially concern very excitable children, usually nervous girls, and are characterised by violent pains, a drawn-in abdomen, slight convulsions, and obstinate constipation. In the treatment of colic we must first endeavour to remove the cause. In sucking infants, colic especially is apt to occur when the nurse's milk exhibits a large proportion of fat, and in such a case the nurse should be changed. In flatulent colic, oleum chamomillæ or fœnieuli may be given with a drop of tincture of opium as an oleo-saccharate. In metallic and in hysterical colic, belladonna is the best means; and intermittent colic should be treated by quinine.

REVIEWS.

The Science and Art of Midwifery. By WILLIAM THOMPSON LUSK, A.M., M.D., Professor of Obstetrics and the Diseases of Women and Children in the Bellevue Hospital Medical College; Consulting Physician to the Maternity Hospital; Gynæcologist to the Bellevue Hospital; Fellow of the American Gynæcological Society; Corresponding Fellow of the Obstetrical Societies of Edinburgh and London, etc. With numerous illustrations. London: H. K. Lewis. 1882. Pages 687.

WE have before us one of the most important works on its subject which has been published of recent years: a complete and systematic work, which aspires to put before the student and practitioner a full and accurate account of the Science and Art of Midwifery, including the results of the latest scientific inquiries, and the "changes which have been made by modern investigation in the views entertained respecting the physiology and pathology of pregnancy, labour, and childbed." We may say at once, that, ambitious as is its aim, the work fairly fulfils its object. At present, Germany takes the lead in the scientific study of Obstetrics and Gynæcology, and it is therefore inevitable that a writer who endeavours to do what Dr. Lusk has done, should be largely imbued with the spirit of German literature. It is impossible, for instance, for anyone to write a good modern work on Midwifery without making large use of the great "Lehrbuch" of the late Professor Spiegelberg. It is therefore not to be wondered at that Dr. Lusk should in some places seem very German in his way of looking at things; but we cannot call this a fault. Next to Germany, he looks (with less reason, it seems to us, although very naturally) to America—English authorities and practice being less referred to than writers belonging to the two former countries. We may go even further, and say that, although we do not in everything agree with him, and although on special subjects better accounts may have been given by other writers, we regard this book, taken as a whole, as the best modern treatise on the subject in the English language.

Having stated our general opinion, we now proceed to comment upon a few points which struck our attention in reading it.

In Chapter II., which treats of the development of the ovum, we are somewhat surprised to find no mention of the work of Ercolani, more especially as it has been translated by a countryman of Dr. Lusk's.

At page 84 is a statement which we at first thought must be a misprint, but which is repeated at page 114, and which is most certainly incorrect, viz., that at the fourth month of pregnancy the uterus is of the size of a man's head.

Chapter VI., upon the disorders of pregnancy, is a very good one. Dr. Lusk exercises a healthy scepticism in dismissing as mythical the so-called "longings" of pregnant women. In a note at page 120 he seems to us hardly just to the late Dr. Copeman, who, he says, regarded the treatment of the vomiting of pregnancy by dilatation of the cervix uteri with the finger as "infallible." We do not think Dr. Copeman went to this ridiculous extreme.

At page 180 we read that a voluminous scalp tumour forms, as a rule, in normal pelves, "below the narrowing of the *inferior* strait."

In treating of face presentations, the author gives a full account of the method proposed by Schatz for their rectification—a plan which, as Dr. Lusk says, is rational, and which on paper looks very pretty. It seems to us, however, to savour more of having been evolved at the desk than in the lying-in room; and we should have read Dr. Lusk's account with much more interest could he have told us that he has tried it. In describing the treatment of brow presentations, Dr. Lusk says that "the only artifice by which the life of the child can be saved, consists in bringing down the occiput, and producing a vertex presentation." But he gives no directions as to the best way of doing this; and we should have liked to know what method he has found the easiest and most effective, because the difficulty of the manœuvres which have for their object the artificial production of vertex presentations is the chief objection to them. "Failing this manœuvre," Dr. Lusk goes on (page 195), "craniotomy becomes inevitable." Surely there is podalic version!

In the treatment of difficult breech cases, our author disapproves of bringing down a foot, which is the practice advocated by Dr. Robert Barnes, and, we believe, generally regarded in this country as the best. He says it is a "questionable procedure," and that it opens a path for the descent of the cord (page 201), and objects to it also (page 358) on account of its difficulty, the amount of force sometimes required, and the possibility of fracturing the thigh. The fillet appears to be the means most in favour with him in these difficult cases. He speaks of inserting the index finger into the fold of the thigh, and then increasing the traction power by seizing the wrist of the hand thus occupied, with the disengaged hand. But in this method of delivery the limit of force possible to be used is the flexion power possessed by the index finger, and this cannot be increased by pulling upon the wrist.

In speaking of rupture of the perineum (page 208), Dr. Lusk lays down as one of the principles of treatment, whereby this accident is to be prevented, "measures which favour expulsion during the interval between the pains, or at least after the acme has subsided." Would it not be more direct to say, measures which prevent too rapid expulsion? The amount of stretching of the perineum required to let the head pass, must be just the same during the interval as during a pain: the only difference that we can see between delivery of the head at the acme of a pain, and at any other time, lies in the greater rapidity with which it is accomplished in the former case.

In dealing with locked twins, Dr. Lusk again seems to differ from Dr. Barnes, in that he does not look with favour upon decapitation. He says (page 228), "In the cases so far reported, where decapitation of the first child has been performed, the operation has not proved successful in saving the life of the second."

Dr. Lusk makes a statement of much importance concerning condensed milk, viz., that he has seen a number of children fed upon it become rickety (page 249). If his experience is the rule, the extent to which condensed milk is used makes this a very serious matter.

The so-called milk fever, which the older authors regarded as so common, Dr. Lusk, basing his assertion upon extensive and accurate thermometrical observations made in the Maternity Hospital of New York, regards as an "entirely exceptional occurrence" (page 239).

In the discussion of the complication of pregnancy with cardiac disease, we are somewhat surprised to find no notice of the admirable work on that subject by Dr. Angus Macdonald. We may here point out an example of what seems to us the weak point in Dr. Lusk's most valuable work, viz., as we hinted before, the extent to which the author has drawn from foreign sources, sometimes—although we must add, very seldom—without digestion or verification from his own experience. At page 256 Spiegelberg is quoted to the effect that the troubles which attend the complication of cardiac disease with pregnancy are partly due "to the limitation of the intra-thoracic space by the encroachments of the diaphragm." But at page 258 we are told, a reference being given to Gusserow, that "later investigations have not only shown the fallacy of this theory, but even rendered probable an actual increase in the intra-thoracic space during pregnancy." At page 260 we are told, on the authority of Kassowitz, that "it is almost impossible for a fœtus poisoned by the paternal re-

productive element to infect a healthy mother." We thought the best syphilographers held the opposite view.

In speaking of phthisis and pregnancy, the author lays down an injunction that we think is not likely to be much attended to. "Girls with suspected hereditary predisposition to phthisis should not marry" (page 259). Looking at the very slight grounds that in any given case we can have for asserting that phthisis is likely to develope, and also that, in the human race, marriage is something more than a mere physical union, we do not think medical men will do well, upon a merely suspected predisposition, to be dogmatic as to matrimonial questions. It is not the function of medical men to advise patients whether they shall or shall not do this or that. Our duty is to warn them of the physical consequences of the proposed action: it is for them, having been made aware of these consequences, to judge whether they shall take the step or not.

In the treatment of retroflexion of the gravid uterus, it seems to us that Dr. Lusk is hardly just to the expectant treatment, *i.e.*, keeping the bladder and rectum empty, and the patient in bed. He objects to it on the ground of its uncertainty, and the prolongation of the patient's sufferings. Busch long ago showed that this plan was efficient in the large majority of cases; and the patient's suffering is relieved as soon as the bladder is emptied; and by the expectant plan she is saved the pain and risk attending forcible replacement.

It is well known that there are cases in which women habitually abort, but the most careful investigation fails to detect the cause. Dr. Lusk puts these down to "certain personal conditions of nerve irritability" (page 294). But this is not an explanation, for unless we know what these conditions are, we are no wiser than before. In hæmorrhage attending abortion, when the cervix will not admit the finger, Dr. Lusk recommends plugging the vagina (page 305). Is it not better to plug the cervix either with a tent or with lint, as recommended by Dr. Henry Bennet? He tells us (page 307) that he has discarded ovum-forceps, as being dangerous and unnecessary. Is not this too sweeping? We think that there are cases in which the ovum or placenta can be extracted easily and safely by a good ovum-forceps in the hands of some one accustomed to gynæcological manipulations; while if the operator be restricted to the use of the finger, delay, and much longer and rougher manipulations, would be required.

The author praises highly the treatment of extra-uterine pregnancy by the faradic current (page 320). The cases which he quotes are, however, open to the fallacy that they may have been instances of mistaken diagnosis.

The chapter on the forceps is a very original and able one. The author recommends the application of the blades to the sides of the child's head (when in the pelvic cavity), instead of in relation to the sides of the pelvis, except in cases in which the position of the head is such that one blade would have to be applied behind the pubes, and the other in the hollow of the sacrum. He says that for many years he practised exclusively the so-called direct applications (to the sides of the pelvis), but with increasing experience has become convinced of the superiority of the methods he now advocates. Is it not possible that the better results of his later operations may be due to increased skill rather than to improved method?

At page 362 the method of extracting the after-coming head by placing the index and middle fingers in the canine fossæ is called "Smellie's method." This method is an almost useless one, for, as Matthews Duncan has shown, the amount of force that can be exerted by it is equal to the amount of friction between the pulp of the digits employed and the integument of the fœtal face, which is very slight indeed. Smellie recommended putting one or two fingers in the child's mouth, by which, as Duncan has shown, very considerable force can be used; and he goes on to say that if the operator is afraid of damaging the lower jaw, he may apply his fingers to the canine fossæ, or to the bony ridges forming the lower margins of the orbits.(a)

Dr. Lusk seems inclined to advocate a more frequent performance of Cæsarean section than is now the case. He quotes Dr. Barnes to this effect:—"Obviously we cannot recognise fatal cases of craniotomy . . . . unless the operation was begun under selected circumstances—that is, before exhaustion had set in—and conducted with due skill, and after the most approved methods." Dr. Lusk adds: "But we have an equal right to refuse to recognise fatal cases of Cæsarean section, in which the conditions and methods of the operation rendered success an improbable, if not an impossible, issue." We may point out that if this method of selection be applied to each, a most important difference between the two operations comes out: for the mortality of Cæsarean section, under the most advantageous conditions, is very high indeed; while that of craniotomy, performed by a skilful operator and under favourable circumstances, is about that of natural labour, perhaps less.

The chapters on contracted pelvis and the mechanism of labour therein are so much fuller and better than those contained in any other similar work on the subject, that to the obstetric student they will be almost a complete novelty. There is one assertion, contained in a footnote (page 440), to which we are inclined to postpone assent: "There is a third form of justo-minor pelvis, which is the concomitant of undeveloped organs of generation. As it occurs only in sterile women, it possesses no obstetrical interest." Has this ever been proved?

With regard to the important question as to whether, in dealing with puerperal convulsions, it is well to induce labour, our author speaks with a somewhat uncertain sound. At page 536 we read, "The induction of premature labour . . . if employed as a last resource . . . is still justifiable, though . . . rather of the nature of a forlorn hope." But at page 538 we find, "When convulsions occur during pregnancy, the question as to the advisability of at once provoking labour is by no means settled. . . . It is commonly advised not to introduce labour as a complication. . . . So far as my own experience goes, however, the practice of waiting upon nature has proved uniformly disastrous, while the induction of labour has furnished me with a certain proportion of recoveries." If the disease depends on the pregnancy, surely it is reasonable to expect benefit from removing the cause. On this ground, as well as because our experience accords with that of the author, we are inclined to think the induction of labour good practice.

Dr. Lusk is emphatic in his recommendation of the induction of labour as soon as a diagnosis of placenta prævia has been established. The whole chapter on this subject is clear and philosophical. We notice one point of detail showing how observers are apt to differ upon matters in which exactness is unattainable. Dr. Lusk speaks of the *softening* which exists in the lower uterine segment as a result of placenta prævia, making its dilatation easy. Dr. George Roper has written upon the *hardness* of the cervix in placenta prævia, which causes it to dilate badly. We believe the truth is that the cervix is thickened, and more vascular than usual, and may, like the cervix when the placenta is not implanted on it, dilate well or badly.

With regard to rupture of the perineum, our author makes a statement which seems to us rather too strong. He says (page 576), "Only a very credulous person really believes that he has witnessed union by first intention in extensive ruptures, as the result of tying the knees together and enjoining rest on the side." We are quite sure that union, even of extensive ruptures, may take place under the treatment mentioned, although in such cases, not having disturbed the parts to see, we cannot say whether the union was by first intention or not.

We have not space to say more, and will only further particularise, as of remarkable excellence, the chapter on puerperal fever. We thank Dr. Lusk for his most valuable work, which is, in our opinion, as we have said before, the best representative of the state of obstetric science and art at the present day that exists in the English language. Student and practitioner will alike find it suitable to their needs, and there are few specialists who will not gain instruction from it.

(a) New Sydenham Society's edition, vol. i., page 305.

Diet for the Sick. By J. J. Ridge, M.D. Second Edition London: J. and A. Churchill. 1882.

This little book should be in the hands of all who have to do with the nursing of the sick, or with invalids; and there are probably but few practitioners who would fail to learn something worth knowing from its pages. Among other things, the modes of preparation of beef-tea, and the varieties thereof, are detailed with great care, particular attention

being given to the avoidance of waste. The many ways in which milk may be treated to suit the varying fancies of an invalid are here described in such a manner that anyone could carry out the directions. Whey, lemon drinks, tea, and even toast-and-water are not omitted. The book concludes with paragraphs on digested foods and nutrient enemata. We consider it a most serviceable little work.

Spirillum Fever: Synonyms—Famine, or Relapsing Fever: as seen in Western India. By H. VANDYKE CARTER, M.D. Lond., late Officiating Principal and Professor of Medicine Grant College, and First Physician Jamsetjee Hospital, Bombay. London: J. and A. Churchill. 1882. 8vo, pp. 449.

THE occurrence, often upon a large scale, of Relapsing or Famine Fever has long been observed in Upper India; but, until of late, its existence in the Bombay Presidency has not been recognised. Between April, 1877, and March, 1880 (drought, dearth, and disease having prevailed in 1876-77 in the Deccan Districts), the fever, of which this large work contains a description, prevailed in Bombay itself, and received early notice in the columns of this journal. It appears to have commenced, or at least to have been first recognised, in a Relief Camp, capable of lodging 2000 persons, erected on the outskirts of the town. In this were lodged many of the surplus population of the worst lanes and houses of the town, overcrowded by the numerous famine-stricken peasantry then daily flocking to the Presidency. The credit of independently recognising this disease is given by Dr. Carter to Mr. Thomas Blaney, a private practitioner in Bombay. At first, some high authorities considered that this was a paludal fever; a good deal of friendly controversy arose, and to this we are inclined to attribute Dr. Carter's anxiety to place his professional brethren in possession of the whole of his elaborate researches into its causes and pathology. He tells us that he "had the benefit (if so it can be termed) of repeated personal experience of this fever. Unfortunately, the least of these attacks brought to a premature close some more recondite inquiries which he hoped to undertake."

Dr. Carter published, in vol. lxi. of the *Medico-Chirurgical Transactions*, an account of this fever, which may be regarded as the nucleus of the large mass of facts recorded in the portly volume before us, in which are given, in great detail, the "history of the Epidemic," the "clinical history of the Spirillar Infection," and the "pathology of Spirillum Fever." We have here, upon the authority of one of the most accurate observers of the day, full evidence of the presence of Spirillum in these cases, the existence of this organism not having been previously observed in Indian Relapsing Fever. His numerous microscopical observations are represented by a plate of Spirillar Structures, and another of Non-Spirillar Structures, in man and in the monkey. Dr. Carter inoculated the small monkey of Western India—*Maeacus radiatus*—with the blood of fever patients, with nearly 73 per cent. of successful results, specific infection and fever ensuing. Similar observations, confirming the fact of the communicability of spirillar infection to the Quadrumana, were early repeated in Germany by Dr. R. Koch (then of Wollstein), as intimated in the *Deutsche Medicinische Wochenschrift*, No. 25, dated June 21, 1879, Berlin. Dr. Carter's work is illustrated by upwards of a hundred abstracts of cases. As this organism has not yet been observed elsewhere in Indian Relapsing Fever, or in any other fever of that country, and as it now becomes the duty of those who have to deal with this most serious type of contagious fever in the East to try their cases by the Spirillum test, we shall conclude this notice of Dr. Carter's highly valuable and elaborate monograph by citing his remarks upon the—

"*Range of the Spirillum.*—I have examined microscopically the blood of many patient suffering from various febrile and non-febrile diseases, with the express purpose of ascertaining if, in them, the blood-spirillum is ever present. There were special reasons for making this inquiry, and it was done with care. The result has been a firm conviction that, under common modes of research, the organism is to be found only in a certain disease possessing the attributes of so-called relapsing fever. It has been detected when symptoms were, at first, of doubtful clinical import; but then the previous history, subsequent course of illness, or post-mortem revelations, invariably confirmed the diagnosis indicated by its presence; and it was never found except under such affirmative conditions. In some instances of practically undoubted relapsing fever, the organism was not seen; but only when the completer methods of examination were not applied, or when specific pyrexia was not present: and, briefly, my experience has been in entire accordance with that of most observers in Europe.

"The cases scrutinised occurred chiefly during the late epidemic, and at the J. J. Hospital; they amounted to 393, with 91 deaths. There were—Ague, 70 cases; Remittent Fever, 101; Pneumonia, 72; Dysentery, 28; Bronchitis, 13; Meningitis, 5; Cerebro-Spinal Meningitis, 1; Hepatitis, 3; Enteritis, 3; Nephritis Acuta, 2. To the best of my belief, none of these affections were mere 'complications' of relapsing fever, and they could only be regarded as substantive diseases. There were two instances of fatal Enteric Fever and six of a typhus-like character; besides numerous examples of hectic fever in various forms, and chronic rheumatism, syphilis, scurvy, and the like, with slighter febrile and non-febrile affections examined as tests. At the G. T. Hospital I omitted no opportunity of testing in this way the diagnosis of fevers; and I never met with contradictory testimony."

GENERAL CORRESPONDENCE.

BRAIN-PRESSURE IN ELEMENTARY SCHOOLS.

LETTER FROM MR. JOHN RUSSELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—You have been good enough on various occasions to direct the attention of your readers to the fact that an undue amount of pressure is sometimes brought to bear in preparing young people for the numerous examinations which are now the fashion of the day. Teachers are alive to the evils of the system, but anything which they may urge to mitigate the injurious effects of over-pressure is set down as so much selfish argument in behalf of lightening their own work. The teachers who are engaged in the elementary schools of the United Kingdom are specially interested in the subject of the ills that arise from excessive brain-pressure in the case of the young.

On behalf of the members of the National Union of Elementary Teachers, nearly 14,000 in number, I have to invoke your powerful assistance. The teachers are anxious to obtain the unbiassed opinion of medical men as to the amount of illness which can be traced to overwork in school at the present time as compared with some ten or twenty years ago. If your professional readers will favour us with their opinions on this important subject, either through the medium of your own columns, or privately to myself for the use of the National Union of Elementary Teachers, they will be doing a service to the cause of public health and of national education. I am, &c., JOHN RUSSELL.

4, Bridewell-place, New Bridge-street, E.C.

THE INSANE COLONY AT GHEEL.—An American physician, visiting this colony, reports unfavourably of it. "Gheel," he says, "may do for Belgium, but not for us. Even in Belgium things are changing greatly from year to year; and from statements of inhabitants of Gheel it is only a question of time when this system will have to be given up. In the country the lunatics are miserably taken care of; and in town, where men and women go about unaccompanied, results easily anticipated occur. In one case the family used the patient's blanket in a winter night; in another the patient was abused; a third had a female patient who had become pregnant; a fourth became vacant for the same reason. I should judge that there is more trouble on this score than is admitted. The fact that there are now 200 vacant beds in the colony corroborates the statement that this system will have to be abandoned. Heretofore I had entertained some poetical ideas concerning Gheel; the prose that I now saw was sufficient to dispel them. The guide told me that the majority of visitors went no further than the town. Having myself seen more of the country than of the town, I may have seen less of the good features and more of the bad than is usually the case."—*Phil. Med. Times*, August 26.

REPORTS OF SOCIETIES.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 4.

Dr. MATTHEWS DUNCAN, President, in the Chair.

SPURIOUS HERMAPHRODITE.

DR. FANCOURT BARNES showed a child (living) which presented malformations such as those classified by Sir James Simpson under the title of "spurious hermaphroditism." He could find no trace either of testes or of uterus, but thought the child most likely a male.

Dr. CHAMPNEYS had, in a somewhat similar case, detected the uterus by examination per rectum.

Dr. SWAYNE said that there was a specimen in the museum at Bristol, in which the external parts were like those in this case, but the internal organs were those of a female.

HYPERTROPHY OF PLACENTA.

Dr. HERMAN showed a specimen of hypertrophy of placenta. It had been removed piecemeal, and a large part left at the patient's house; the portion exhibited weighed more than four pounds. To the naked eye its structure did not differ from that of normal placenta. The child was decomposing when born.

Dr. ROBERT BARNES had observed, in some cases of hypertrophy of the placenta, dropsy of the placenta, and ascites and anasarca of mother and fœtus. Possibly the placental villi were over-developed in order to find enough pabulum in the hydræmic blood.

DEGENERATION OF PLACENTA.

Dr. CHAMPNEYS showed (for Dr. Murray) a placenta exhibiting fibrinous degeneration on the uterine, and calcareous degeneration on the fœtal surface. The child was born alive.

ON AN OBLIQUELY CONTRACTED PELVIS OF UNILATERAL SYNOSTOSIS.

Dr. CHAMPNEYS read a paper on this subject. The pelvis was that of a child aged between seven and fifteen, in which the changes at puberty had already slightly commenced. At this point the left sacro-iliac joint became inflamed, leading to synostosis of part of the articular surface. The left half of the sacrum was dwarfed, and this bone rotated so as to look somewhat to the left. The left half of the pelvis was narrowed, the pubic symphysis driven to the right, and its left half displaced behind the right. But compared with most Naegelé pelves, the outline of the brim was less straight; there was less verticality of the ilium than usual, and there was no evidence of transverse rotation of the left os innominatum on its acetabular axis. The author considered the specimen one of a half-developed, obliquely contracted pelvis of unilateral synostosis, most instructive in its bearing on the production of the typical pelvis of Naegelé.

Mr. GRIFFITH thought that the synostosis was congenital. If so, Dr. Champneys' theory would require modification.

Dr. CHAMPNEYS thought the joint showed clear evidence of disease.

TRANSVERSE SEPTUM IN THE VAGINA.

Dr. GERVIS described a case of the above malformation. The patient was aged twenty-two, and menstruated regularly. She sought advice on account of pain in micturition, due to a urethral caruncle. About one and a half or two inches from its orifice the vagina seemed to end in a *cul-de-sac*, having on either side a pouch, giving at first the impression that there was a double vagina. In the left corner was a small opening admitting a probe into a space beyond. The hymen was present. The uterus could be felt per rectum. The septum was divided with the thermo-cautery, giving exit to a quantity of brownish mucus. A granular erosion surrounded the os uteri. The caruncle was at the same time removed. The patient did well, and the endocervicitis began immediately to improve when freed from the apposition of retained secretions. The author remarked on the value of the thermo-cautery in lessening the risk of septic infection in such cases.

CASE OF SO-CALLED IMPERFORATE HYMEN.

A paper on this subject, by Dr. MATTHEWS DUNCAN, was read. He was induced to relate the case by three circumstances. 1. There was a remarkable absence of any kind of suffering during nearly the whole time of the development of the disease. The patient had never menstruated, nor suffered from any uneasiness in connexion with that function, until eight months before admission, when she was told by a medical man that she had a lump in the lower belly. Since then she had suffered from irregular achings. The author thought the probable explanation of this was that the uterine body was not distended; for facts showed that dilatation of the uterine body was more difficult and painful than dilatation of the vagina and uterine cervix. 2. The case illustrated the treatment without any injections, which had been the subject of remarks at a recent meeting of the Society. An incision was made by Paquelin's cautery-knife. About twenty-five ounces of the usual treacly fluid escaped; about twenty ounces on the following day, and the last of it on the fifth day; in all about fifty ounces. At no time had it any fetor. No hypogastric pressure or interference with the flow was permitted. A piece of carbolised lint was put to the vulva. The patient made an uninterrupted recovery. He thought the risk of peritonitis was increased by the washing out sometimes practised. He thought the cautery-knife was preferable to any other mode of making the incision, because its wound was not an absorbing surface. 3. The condition of the pudendum, rendering the term "imperforate hymen" erroneous and misleading. The vagina was closed by a membrane, upon which the hymen could be seen, entire and healthy; and after the operation the hymen could be seen to have its normal position and relations. He had made the same observation in other cases; and he had seen the hymen present when vagina and uterus were both absent. On these grounds he regarded the view of M. Budin (that the hymen was nothing but the anterior extremity of the vagina) as incorrect.

Dr. ROBERT BARNES said that in these cases toxæmia arose before the blood was evacuated, from decomposition of the hæmato-globulin in the retained fluid. He had not used injections; they were not called for in all cases.

Dr. GERVIS could hardly accept Dr. Duncan's view that the membrane occupying the area within the hymen was vaginal wall. He thought the variations in shape of the hymen, and the absence of muscular fibres in it, militated against M. Budin's view.

Dr. CARTER had had under his care a case similar to that described by Dr. Gervis. He had divided the septum, and the patient did well. He thought washing out was meddlesome unless the discharge was offensive or there were symptoms of septicæmia.

Dr. ROGERS mentioned a case under his own care. Some pyrexia followed the operation. The vagina was not washed out till a week after the operation, and when this had been done the pyrexia subsided.

Dr. GALABIN thought it an important question whether in these cases it was desirable to use injections immediately, after an interval, or not at all. The danger was greater the higher the atresia was situated. He had known of two cases of high obstruction in which death had followed evacuation, although no syringing was used. Emmett had published a number of cases, many of them of atresia high up, in which recovery had followed treatment by injections. He (Dr. Galabin) generally let the fluid flow for twenty-four hours, and then began antiseptic injections. All his cases so treated had been successful. Perhaps it would be best if a perfectly aseptic condition could be maintained by antiseptic dressings.

The PRESIDENT said that Dohrn had entered elaborately into the developmental histories of vaginal closures. What he (Dr. Duncan) wished to show was that cases with blue, thin-walled bulging between the labia were generally, often erroneously, called imperforate hymen, whereas, in many and also in cases where there was no vagina, a hymen could be distinctly seen.

NEW INTRA-UTERINE STEM PESSARY.

Dr. SWAYNE showed a new form of stem pessary. It consisted of a perforated vulcanite stem, which rested on an india-rubber band attached to a modification of Greenhalgh's pessary. These were introduced separately, but when *in situ* united by a silk thread. The advantages he claimed for it were that it was easily introduced, kept in place, and

allowed uterine mobility, so that it was free from some of the dangers that attend stem pessaries. He should only use stem pessaries when simpler and safer means of treating uterine flexion had failed.

Dr. Heywood Smith asked what advantages Dr. Swayne's pessary had over that of Dr. Wynn Williams?

Dr. Edis thought stem pessaries very dangerous. The *position* of the uterus was too much regarded, whereas its *condition* was the chief thing. Numbers of cases of pelvic peritonitis occurred from the injudicious employment of stem pessaries, producing much suffering, and not infrequently death.

Dr. Rogers did not think Dr. Swayne's instrument more perfect than that of Dr. Wynn Williams.

The President did not use any kind of stem pessary. He had known of many deaths from them, but he never knew of a case of version or flexion cured by them.

Dr. Robert Barnes thought stem pessaries necessary in some cases. Accidents had occurred from them, but now more scientific instruments had been contrived. He preferred that of Dr. Greenhalgh. He had cured cases of anteflexion with stem pessaries.

Dr. Herman had known of a death following the use of one of Greenhalgh's stem pessaries.

Dr. Swayne said that in his pessary the india-rubber supporting the stem was firmer than in that of Dr. Wynn Williams. He had used it many times, always with good results. He had always carefully watched the patient, and withdrawn the stem whenever it gave rise to pain or rise of temperature.

THE OPHTHALMOLOGICAL SOCIETY.

Thursday, October 12.

William Bowman, F.R.S., President, in the Chair.

The President laid vol. ii. of the Society's *Transactions* upon the table, and announced that copies of it would be ready for distribution in the course of a few days.

Chronic Membranous Conjunctivitis.

Mr. Henry Juler showed a woman (a patient of Mr. Anderson Critchett's) suffering from chronic membranous conjunctivitis. There was a history of syphilis.

Mr. Power recollected some years ago having seen a similar growth on the ocular conjunctiva in a distinctly specific case, which grew up somewhat like a horn, and was covered with a rupia-like crust; eventually it spread over the whole cornea, and the eye was removed. Unfortunately the specimen had, he feared, been lost.

Mr. Nettleship had seen one case in a girl, aged about fifteen, on one of whose eyes was a patch of tough adherent membrane of some weeks' duration, resting on an infiltrated base, exactly resembling the patch in the less affected eye of Mr. Juler's patient. Single cases closely resembling the condition seen in the worse eye of Mr. Juler's case had been published by Businelli, Mason, Hutchinson, and Hulme. The patch in Mr. Nettleship's case disappeared under the use of lapis divinus, leaving a scar.

Case of Chronic Tubercle of the Choroid and Brain.

Dr. Stephen Mackenzie related this case. The patient, a girl aged four, had been ailing for eighteen months—ever since an attack of whooping-cough. The chief symptoms were wasting, anorexia, frontal headache, occasional vomiting, febrile attacks; latterly she had become blind. When first seen there were no signs in the chest or abdomen; on ophthalmoscopic examination there was double papillitis; in the left eye a patch of choroidal disease, larger than the disc, was seen to the outer side of it; it was opaque and yellow in the centre, with a zone of black pigment and an outer margin of pigment; a smaller circular patch was seen below the disc, over which coursed retinal vessels; one small patch existed in the right eye. The child died later on from tubercular meningitis. At the post-mortem, besides the meningitis, several caseous tumours were found in various parts of the brain. The diagnosis as to the tubercular nature of the choroidal changes was completely confirmed by the microscope. He alluded to Deutschmann's inoculation experiments on rabbits, in which it was shown that the tuberculosis induced in the membranes and brain was followed by double papillitis and tubercle of the vitreous and choroid, and that the process was traced, on post-mortem examination, to metastatic infection along the optic nerve-sheaths. Deutschmann had also recorded a case of tubercular meningitis in a child in which an appearance of tubercle in the optic nerve sheath was present. The present case lent no support to this connexion between tuberculosis of brain and eye. Attention was drawn to the similarity of the changes in the eye and brain, in showing us pathological processes, as well as in aiding diagnosis.

Case of Tubercle of the Eye resembling in some of its Clinical Aspects a Retinal Glioma.

Dr. Brailey read a case of tubercle of the eye resembling in some of its clinical aspects a retinal glioma. The patient was aged twenty-seven. The right eye had been noticed to be getting large three months; tension increased. The anterior chamber was deepened, and iris seemed much stretched. With the ophthalmoscope a greyish mass could be seen bulging forwards towards the disc, but separated apparently into two folds by a horizontal crease. The left eye seemed perfectly normal. The eye was excised, and a complete detachment of the retina from the optic disc was found, there being an abundant quantity of yellowish sub-retinal fluid; projecting from the region of the papilla was a mass the size of a pea, which had all the histological characters of tubercle. It was impossible to say whether this new formation, which had the structure of tubercle, originated in the choroid or in the nerve-tissue of the papilla; but he inclined to the former, on account of general experience rather than from any special character presented by this individual specimen.

Case of General Miliary Tuberculosis, with Tubercle in the Choroid without Meningitis.

Dr. Francis Warner read a case of general miliary tuberculosis, with tubercle in the choroid, but no meningitis. The patient, a girl aged nine, came under observation suffering from fever and emaciation. There were crepitations over the lungs, but no signs of pneumonia; the frequency of the respirations was out of proportion to the pulse and temperature. There were no cerebral symptoms. In the fundus of each eye three or four light-coloured, raised, cloudy spots were seen. At the autopsy the diagnosis of choroidal tubercle was confirmed; tubercles were found in the lungs, liver, spleen, and kidneys. There was no meningitis. He brought the case forward as an illustration of the association of tubercles in the choroid as a part of general miliary tuberculosis without meningitis.

Dr. Buchanan Baxter had examined the eyes in all cases of tubercular meningitis that had come under his observation during the past twelve years, and had not found tubercles in the choroid in a single instance. He had found papillitis more often than not. He had twice seen tubercles in the choroid, once confirmed by post-mortem examination. In this case there was general tuberculosis, but no meningitis.

Dr. Coupland had seen tubercles about half a dozen times in cases of tubercular meningitis, but these were also all of them cases of widely diffused tuberculosis.

Dr. Sharkey had examined all the cases of tubercular meningitis at St. Thomas's Hospital during a period of three years, but had only once seen tubercles in the choroid during life.

Dr. Barlow had seen tubercles in the choroid in about twenty instances. In a very large proportion of these cases there was tubercular meningitis, but he had seen tubercles in the choroid where there was no meningitis. He believed that sometimes in cases of tubercular meningitis very minute shining particles were to be seen in the choroid during life, and verified post-mortem, which he would call "tubercular dust." He considered that in Dr. Mackenzie's case the process was of a much more chronic nature than in miliary tuberculosis, and he regarded this process as the homologue of caseous pneumonia.

Dr. Sansom alluded to a case of advanced phthisis in which he had seen tubercles in the choroid without any cerebral symptoms, and he thought such cases would be found to be not uncommon if the routine use of the ophthalmoscope became more general. He then narrated the case of a child who had well-marked symptoms of meningitis, in the fundus of whose eye he had found what he then thought to be, and still believed to have been, a tubercle. On the

strength of this discovery he gave a most unfavourable prognosis. The child had completely recovered, and he now felt that he did not know what value to place on the finding of choroidal tubercle as regarded prognosis.

Mr. HULKE fully agreed with the remarks that had fallen from Dr. Baxter, and had often found papillitis in tubercular meningitis, but thought that choroidal tubercle was very rare without general tuberculosis.

Mr. BRUDENELL CARTER had some years ago examined the fundus in many cases of meningitis, but he had never seen any ophthalmoscopic changes early enough to be of any value in diagnosis. He had seen cases of choroidal tubercle in St. George's Hospital, but never apart from general tuberculosis. He thought that the diagnosis of tubercles in the choroid rested on a very uncertain basis, and considered that the spots designated tubercles did not possess any distinctive character apart from their history.

On certain Cases of Destructive Ophthalmitis in Children.

Mr. NETTLESHIP said that the chief object of the paper was to draw attention to the cases of deep-seated disease which more or less closely simulate glioma of the retina in their clinical features. He believed that there were two principal types of morbid change in this class of cases. 1. Iridochoroiditis, either acute and almost purulent, or chronic; the result of either form being inflammatory opacity in the vitreous, with subsequent detachment of the retina, and backward displacement of the ciliary processes by the shrinking of the inflammatory material. Hæmorrhage between choroid and retina might occur. 2. Inflammation and condensation of the vitreous (especially in its outer layers), and in some cases also in its antero-posterior axis, probably the result of a chronic severe retinitis, no detachment of retina occurring. Iritis occurred in nearly all cases of pseudo-glioma, and there was often severe inflammation of the eye in the early period of the case. It was particularly as to the causes of these eye-changes that information was wanted. It was not sufficiently known that the condition called pseudo-glioma (whether following severe inflammation of the eye or not) often came on during, or soon after, some severe illness. Whilst in a considerable number the children were syphilitic, measles, whooping-cough, chicken-pox, and perhaps pyæmia and sporadic recoverable meningitis, appeared from the cases (published and unpublished) collected by the author to be the commonest antecedent of these eye-changes. He asked especially for evidence as to the nature of the connexion between ocular and constitutional conditions.

Dr. BARLOW had seen five cases of this disease; three of them with a suspicion of syphilis, to which, however, he attributed no importance, as he could not see any connexion. He inclined to pyæmia as the cause of the changes, and mentioned a case of extensive retinal hæmorrhage and detachment of vitreous associated with ulcerative endocarditis. In these cases of pseudo-glioma there was often a history of a convulsive attack, with cerebral symptoms, etc. He thought a number of them were embolic.

Dr. BRAILEY thought that the cause of these lesions was suppurative inflammation of the vitreous, with consecutive absorption. The tension in these cases was not always diminished; he had found it increased sometimes: diminution of tension could not, therefore, be relied on as a necessary diagnostic sign of non-malignant disease.

Mr. WARREN TAY pointed out that double panophthalmitis was not uncommon in epidemic cerebro-spinal meningitis.

Dr. STEPHEN MACKENZIE had no experience of this latter disease, but he had never seen cases of panophthalmitis in cases of sporadic cerebro-spinal meningitis.

Mr. BRUDENELL CARTER referred to a very full report on epidemic cerebro-spinal meningitis by Prof. Hirsch—a translation of which would be found in the *Transactions of the Epidemiological Society*. He thought, if there was any connexion between the two diseases, cases would be sure to be found in this report.

Dr. C. E. FITZGERALD remembered one case of double panophthalmitis in the epidemic of cerebro-spinal meningitis some years ago in Dublin. He had also seen the disease in cases of endocarditis, and it had been mentioned long ago by Stokes in his classical work on Diseases of the Heart.

Mr. JAMES E. ADAMS pointed out that pseudo-glioma was not in any way a panophthalmitis, and asked what became of these eyes when left alone. He promised to bring forward a case which would, he thought, show the needlessness of excising the globe.

A card specimen of Tortuosity of the Retinal Vessels in a Case of Leucocythæmia was shown by Dr. Samuel West.

Mr. J. Walton Browne, of Belfast, Dr. J. J. Pringle, and Mr. R. E. Roth, were elected members of the Society.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 13.

JOSEPH LISTER, F.R.S., President, in the Chair.

MR. LISTER announced that the *Transactions* of the Society for the past year were now ready. Notice was also given to members that in future the exhibition of living specimens must be preceded by a twenty-four hours' notice to the Secretary, and the patient must be in attendance at 8 p.m.; also that a card descriptive of the case must be forthcoming.

A specimen of the diploma presented to gentlemen who had been elected Honorary Members was handed round.

Case of Phthisis treated by Residence at High Altitudes.

Dr. THEODORE WILLIAMS communicated a case of phthisis treated by residence at high altitudes, the patient having been exhibited at a former meeting of the Society. A medical man, aged thirty, had cough and expectoration of three years' standing, followed by hæmoptysis, wasting, elevation of temperature, and great prostration, and when seen by Dr. Williams in consultation with Dr. Verseker Bindon on August 30, 1881, presented the physical signs of consolidation of the upper lobe of the left lung. After five months' residence at Davos, including a walking tour of seventeen days in the Engadine, during the whole of which period the patient took exercise largely, he gained one stone in weight, and found his strength and power of climbing greatly improved. On first arrival at Davos he had dyspnœa from the rarefaction of the air, but this passed off, and his respiratory powers became greater than previously. On his return, Dr. Williams found an increase in the cyrtometric and other chest measurements, especially in the upper regions of the thorax, and the physical signs denoted the development of emphysema round the old consolidation, and hypertrophy of the healthy lung. Dr. Williams stated that while he ascribed the general improvement of the patient to the dry, pure, antiseptic atmosphere, and the sun's powerful influence, he assigned the arrest of the tubercular changes to the local effects on the lungs of breathing rarefied air, which, by inducing emphysema, caused an expansion of the thorax, at the same time affording a barrier to the encroachment of further infective processes in the organs. With regard to the durability of the good results of mountain climates, Dr. Williams's experience was that, in well-selected cases, one or two winters sufficed to produce permanent arrest of consumptive disease, though in many instances a prolonged stay of at least two years was desirable. Dr. Williams exhibited cyrtometric tracings of similar cases who had resided at Davos and Colorado for several months, to illustrate the enlargement of the chest through breathing mountain air.

Dr. ALTHAUS said that the question raised deserved serious consideration. He had known a case of a young female who was not benefited by the Alpine resorts, but who had improved marvellously in the Colorado. The Colorado springs were 6000 feet above the level of the sea, and other parts (*e.g.*, Elkahorn) of the Colorado were 8000 feet—much higher, therefore, than any valley in Europe. Dr. Solly was quoted to the effect that a prolonged residence was most desirable. Another point of vantage was that this valley of the Rocky Mountains could be lived in all the year round, there was so much sun and so little moisture.

Dr. BROADBENT questioned whether the beneficial effects of high altitudes had anything very special about them. Would not as much good be got out of a sea-voyage, or a residence at seaside resorts, or other places not necessarily of high situation? In other words, is Davos superior to a sea-voyage?

Dr. MACLAGAN wanted to know whether it was the germless atmosphere or the high altitude which effected these

good results. He thought that mere removal from bad surroundings—than which nothing could be worse than a general practitioner with much midwifery—was a great factor in procuring the benefit. Further, does expansion of the chest take place in phthisical cases more than in ordinary individuals?

The President could not doubt the benefit of such climates, but how that improvement was brought about was another question. He thought that the term "antiseptic" was unsuitable if "germless" air was spoken of, and preferred to say "aseptic" when speaking of the atmosphere of these regions. Granting this quality of air, he failed to see how that could affect the bacilli already present in the lungs. These would probably develope in spite of such conditions. Ought we not to draw a distinction between dustless and germless? A respiratory medium free from dust must surely be advantageous as getting rid of so much mechanical irritation. An unsatisfied desire for taking long breaths would lead to increased respiratory efforts, and so to expansion of the lungs and thorax. But it is a question whether this expansion be a benefit unless the increased thoracic capacity be kept up. The President had had practical illustration of the great degree of invigoration which Alpine heights had been capable of imparting in the person of a sexagenarian.

Dr. Wilberforce Smith remarked that the increase in chest-girth might be due to growth of muscle and fat. Probably at high altitudes the liability to intercurrent attacks of slight inflammation was lessened.

Dr. Williams, in reply, agreed that the climate of Colorado was splendid, but he had a difficulty in persuading his patients to go that distance. Davos was by no means the only mountain resort that gave such excellent results. The proof of the value of such elevated regions in the treatment of consumption was given in the expansion of the thorax and in the diminution of the physical signs of disease. Seavoyages did good, no doubt, but he had not witnessed such rapid improvement nor such alterations in thorax and lung in cases treated thus. A thorough and clear analysis, microscopical and chemical, of the conditions existing at these high resorts was yet a desideratum. No doubt that increase of thoracic girth was a good sign, and, relatively speaking, so was emphysema, for did it not seem to prevent the spread of the tubercle? Patients who had been treated at Davos and elsewhere maintained their ground and continued to breathe with greater vigour even when they again dwelt at lower levels. It was an established fact which he had verified at Chamounix, that the natives of high regions had a great pulmonary development. Investigations had also been made in other parts of the Alps, Andes, Rocky Mountains, and Himalayas. The old doctrine was probably still true, that these mountain heights strengthened the constitution, whilst the southern climate diminished the occurrence of catarrh; hence he could not agree with Dr. Wilberforce Smith that high altitudes staved off the intercurrent attacks of slight inflammation.

Epitheliomatous Tonsil—Excision.

Mr. Golding Bird detailed a case in which he had removed an epitheliomatous tonsil in the manner adopted by Chevers, 1871, and referred to three other cases of the same disease in which he had determined not to operate. The operation consisted in an external incision from the ear to the hyoid bone, through which the wall of the pharynx was reached with the greatest ease, and the tonsil with the adjacent pharyngeal tissue removed by the galvanic cautery. The later steps of the operation were aided by an additional incision through the cheek from the angle of the mouth. The disease having also affected the tongue, part of that organ was removed, as well as an enlarged gland at the angle of the jaw. Until the wound closed an œsophagus-tube was used for feeding. Although great relief was given to the patient, yet he soon succumbed to recurrence, not in the site of the excised organ, but in the tongue and the lymphatics of the neck. The conclusions arrived at by the author were that where only a limited infection of the lymphatic glands existed, and where the faucial growth was circumscribed, or nearly so, operation was called for, but that in other cases feeding with tubes with subsequent gastrostomy was the treatment. The operation itself was far easier than many of daily occurrence, and seemed to offer no special risk to the patient. Of the four cases mentioned it was considered by Mr. Golding Bird that in three the disease was primarily in the tonsil; in all four it was the left side that suffered.

Excision of the Base of the Tongue, Right Tonsil, and Part of the Left Palate for Epithelioma; Aneurism of both Popliteal Arteries.

Mr. Clement Lucas related a case of excision of the base of the tongue, right tonsil, and part of the left palate for epithelioma, and aneurism of both popliteal arteries, of which the following are the particulars:—D. K., aged sixty-four, a coal porter on the riverside, who had drunk freely, first came under Mr. Lucas's care in Guy's Hospital on February 13, 1880. He was at that time suffering from a large aneurism of the right popliteal artery, causing pain and œdema of the leg and foot, and from a smaller aneurism of the left popliteal. Digital compression of the right femoral artery was commenced on February 17, and continued for sixteen hours, when the aneurism appeared to have consolidated, and pulsation could no longer be detected. On the following day some pulsation was re-established, and on the 20th digital compression was again commenced, and continued for eleven hours and a half, when pulsation ceased, and did not recur, the tumour afterwards gradually shrinking. An attempt was made about a fortnight later to cure the small aneurism in the left popliteal space by digital compression; but this failed, and, as the tumour caused the patient little inconvenience, no further treatment was suggested, and he left the hospital. He was readmitted on August 2, 1881, suffering from epithelioma of the base of the tongue and right tonsil. On the right side of the tongue, opposite the last molar tooth, was a small ulcer, grey in colour, and irregular on the surface. The ulceration extended along the anterior pillar of the fauces, and involved the right tonsil, as well as the tissue between the tongue and the jaw. The surface of the tongue near the base was raised and indurated for about half an inch from the margin of the ulcer. The movements of the tongue were interfered with, so that mastication and deglutition were painful, and there was an increase of salivary secretion. No enlarged glands were felt beneath or behind the jaw. The operation was performed on August 9. The patient being placed under the influence of chloroform, the cheek was first divided by an incision from the angle of the mouth to the masseter muscle, and the facial artery was twisted. A gag was then inserted on the left side of the mouth whilst the tongue was drawn forwards with forceps and the flaps of the cheek were held back by retractors. The back of the tongue and tonsil are in this way easily reached. The soft palate was next divided near the middle line by means of Paquelin's cautery, and dissected down with the anterior pillar and the tonsil. Attention was now paid to the tongue, which was divided in the median line with a scalpel, and carefully dissected outwards till the lingual artery was reached. This was seized with two pairs of torsion-forceps, divided between, and the ends twisted without loss of blood. The tissue between the tongue and the jaw was next dissected up, the cautery being used to stop any bleeding points; and finally the growth, with the base of the tongue, right tonsil, and half the soft palate, was removed in one mass. The cheek was brought together with three hare-lip pins, and it united primarily. The patient recovered rapidly after the operation, and sixteen days later was again subjected to digital compression for the cure of the left popliteal aneurism, which was about the size of a pigeon's egg. Pressure was kept up with the aid of opium for forty-eight hours, but soon after this, though much consolidated, the tumour still pulsated. He left the hospital, with the tongue quite healed, on September 16. He was readmitted into the hospital on February 13, 1882. There was no return of the disease in the tongue or palate, which were united by a firm and sound cicatrix. There was a large mass on the right side of his neck below and behind the jaw, which commenced six weeks before, and grew rapidly, extending outwards beneath the sterno-mastoid. An operation for the removal of this growth was undertaken on the following day. A vertical incision about four inches in length was made, commencing behind the jaw, and the growth dissected round. It was found necessary afterwards to enlarge the wound transversely. In the course of the operation the lower part of the parotid gland, a portion of the sterno-mastoid, the posterior belly of the digastric and stylo-hyoid, and a portion of the submaxillary gland were removed, all of which were infiltrated. The facial artery was twisted,

and the facial and lingual veins ligatured with catgut. At the bottom of the wound the internal jugular vein and the two carotids, with the hypoglossal nerve, were exposed. Two enlarged glands were also removed from beneath the sterno-mastoid. The patient recovered without a bad symptom, and left the hospital on March 24. He was again seen in July last with a recurrence of the growth on both sides of the neck, but there was still no sign of disease in the original site. It was not then thought advisable to interfere further. Mr. Lucas said that by the operation described it was evident that a cancerous tonsil, with the adjacent structures, can be completely removed from within the mouth, and when this is practicable, it has the advantage over the external operation of avoiding the fistulous track, through which saliva is apt to ooze. For the rest, the treatment of cancer here does not differ from the treatment of it elsewhere. The treatment—and the only treatment—is to operate early and to operate late; to operate, indeed, so long as it is possible to remove a loathsome outgrowth without great immediate danger; to operate to keep it local; to operate on the earliest return; and though we may often be disappointed in our attempts to eradicate the disease, we may still prolong life, or, as in the case before us, succeed in driving the disease from its original site to one where it is less offensive, and more easy for the patient to bear.

Mr. CHRISTOPHER HEATH believed he was right in saying that Dr. Chevers, of Boston, U.S., first started this external operation for removal of growths about the throat, but he doubted whether much good had accrued to the patient. He quite agreed with Mr. Lucas that we should operate early and operate late, but we might do mischief in some cases by exciting fresh action in the malignant growth. Many eminent surgeons had spoken in favour of removal of diseased lymphatic glands where these were readily accessible, and Mr. Heath had long practised this method, and with advantage to the patients. It would also be quite right to go on removing recurrent growths, as we might thereby prolong the life, and make that extra lease of life more tolerable.

Mr. MORRANT BAKER asked Mr. Lucas to detail the final steps of the operation—especially as regards the management of the lingual artery. The removal of enlarged glands, Mr. Baker felt sure, was *the* point in such cases, to secure good results. He ventured to disagree with Mr. Heath and Mr. Lucas when they spoke of driving the disease from one part to another: this apparent transference was really a continuation by extension of the malignant growth, rather than a transference of diseased action.

Mr. BUTLIN doubted very much whether removal of primary malignant growths of the tonsil was worth doing. There was only one case, which occurred in the practice of a Parisian doctor, in which anything like a permanent benefit had been obtained, and this instance was doubtfully a malignant growth, seeing how hard it is to tell a lympho-sarcoma from the lymphoid tissue of a hypertrophied tonsil.

Professor LISTER complimented the authors on the boldness and skill which had been displayed. But he thought that, on the average, no benefit was derived from such operations. He wanted to hear more of the details of the final stages of the operation, especially as to how the tonsil and neighbouring structures were removed in one mass at the end of the operation. It was generally admitted nowadays that all accessible diseased glands should be removed. These lymphatics were as much a local disease as was the tumour. Mr. Lister believed he was the first to remove large diseased glandular masses from the axilla in cases of mammary cancer. His experience of such treatment was very favourable: sometimes there was no return of disease in the axilla, and sometimes there was never any return of the cancer at all. When he was a student it was considered improper to operate on cases when the glands were already affected. Syme taught that the single large gland under the jaw in some cases of epithelioma of the lower lip might be removed with good result, although in those times the glands were not usually interfered with.

Mr. GOLDING BIRD, in reply, said that he was in favour of not operating again, but should trust in future to feeding by a tube as long as possible, and then resort to gastrostomy.

Mr. LUCAS, in reply, said that the tongue was divided with the knife, and was dissected back till the lingual artery was reached, when this was secured and twisted. Paquelin's cautery was used to stop bleeding from small vessels. Mr. Lucas did not think that every case was quite hopeless; nothing could be more painful to endure than a suppurating disease about the mouth and throat, and he had saved his patient from that form of distress.

Mr. BUTLIN remarked that his opinion only applied to cases of primary cancer of the tonsil.

The meeting then adjourned.

MEDICAL NEWS.

UNIVERSITY OF DURHAM.—The following is the list of successful candidates at the First Examination for the degree of Bachelor in Medicine, held last week (for First Class Honours no candidate was successful):—

Second Class Honours.

Roberts, James R., Middlesex Hospital.

Archer, Edmund Lewis, M.R.C.S., St. Bartholomew's Hospital.
Bate, John Frederick, University College Hospital.
Blight, William Lyne.
Dixon, Henry W., Newcastle-upon-Tyne.
Harger, John Maurice, London Hospital.
Hartley, Isaac, Newcastle-upon-Tyne.
Jaques, William, Newcastle-upon-Tyne.
Lazenby, James, Newcastle-upon-Tyne.
Mosse, Herbert, Charing-cross Hospital.
Newbelt, George P., St. Bartholomew's Hospital.
Opie, Edward Augustus.
Robinson, Louis, St. Bartholomew's Hospital.
Robson, James Matthew, B.A., Newcastle-upon-Tyne.
Thistle, Frederick T., L.R.C.P., St. Bartholomew's Hospital.
Woolmer, Shirley Lawrence, University College Hospital.

Ten candidates failed in the examination as a whole, two failed in Chemistry only, and one in Botany only.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 9, 10, 11, and 12, the following candidates were successful:—

For the Licence to practise Medicine—

Adcock, Henry, Liverpool.
Harrington, John Mary, Tralee, co. Kerry.
Hitchen, Thomas, Bradford.
Jones, John Henry, Liverpool.
O'Donel, Claudius, Castlebar, co. Mayo.
White, John William, London.
Wright, William Henry, Liverpool.

For the Licence to practise Midwifery—

Adcock, Henry, Liverpool.
Harrington, John Mary, Tralee, co. Kerry.
Bennett, W. Halloran, Dublin.
O'Donel, C., Castlebar, co. Mayo.
White, John William, London.

At a special examination, held on Tuesday, September 19, the Licence to practise Midwifery was granted to—

Williams, John William, M.D., R.M.I., Dungarvan, co. Waterford.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have been duly enrolled as Members of the College:—

Scott, John Alexander, 1859, Freshwater, Isle of Wight.
Flolliott, Frederick, 1883, London.
Dyas, William, 1884, London.
Burney, Walter Charles S., 1872, Greenwich.
O'Meara, William Henry, 1877, Carlow.

The names are arranged in the order of seniority as Licentiates of the College.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 12:—

Eliewiez, Henry Frederick, Marquess-road, Canonbury.
Letwich, Charles Harcourt, New Cross.
Manley, John Herbert Hawkins, West Bromwich.
Tripp, Charles Llewellyn Howard, Royal Free Hospital.

APPOINTMENTS.

STEAVENSON, W. E., M.B. Cantab., S.Sc. Cert. Camb.—Electrician to St. Bartholomew's Hospital.

BIRTHS.

CAPON.—On October 6, at 159, Edgware-road, W., the wife of Herbert J. Capon, M.D., L.R.C.P., of a daughter.

KILNER.—On October 11, at Bury St. Edmunds, the wife of Charles Scott. Kilner, M.B., of a daughter.

POTTS.—On October 12, at Sunnyside, Leatherhead, Surrey, the wife of Laurence Potts, M.R.C.S., of a son.

RENDALL.—On October 10, at Maiden Newton, the wife of William Rendall, M.R.C.S., of a daughter.

ROGERS.—On October 10, at 117, Old-street, Finsbury, the wife of J. F. Rogers, L.R.C.P., of a daughter.

MARRIAGES.

ATKINS—INNES.—On October 11, at Chigwell, Essex, Thomas Gelston Atkins, B.A., M.D., to Mary Eliza, eldest daughter of the Rev. Canon Innes, M.A., rector of London, Ontario, Canada

BIRCH—SOMERSET.—On October 17, at Newbury, Robert Birch, L.R.C.P., M.R.C.S., Marsh House, Newbury, to Gertrude, daughter of F. F. Somerset, Esq., Greenham House, Newbury.

CRAIGIE—FLEMING.—On October 11, at Morningside, Edinburgh, Major W. B. Craigie, to Mary Ada, second daughter of Andrew Fleming, M.D., Deputy Surgeon-General H.M. Indian Army.

HEATH—BROWN.—On October 10, at Newcastle, W. Lenton Heath, M.B., B.S., F.R.C.S., of Gloucester-road, South Kensington, to Bertha, youngest daughter of Arthur Brown, Esq., of High Park-road, Newcastle-on-Tyne.

HILTON—WOOD.—On October 10, at Northbourne, Kent, Thomas Denne Hilton, M.B., of Upper Deal, to Emily Elizabeth, eldest daughter of the Rev. Thomas Wood, rector of Northbourne.

JEX-BLAKE—GREEN.—On October 14, at Hanover-square, W., Thomas, only son of the Rev. C. Jex-Blake, rector of Lyng, Norfolk, to Fanny Marian, youngest daughter of William Abbott Green, M.R.C.P., Inspector-General of Hospitals, Bengal (retired), of Capel Lodge, near Dorking.

SAUNDERS—BARNES.—On October 11, at Edinburgh, Frederick Anastasius Saunders, L.R.C.P., L.R.C.S., L.M., to Mary Emily Louisa, only daughter of the late Captain Edmund Charles Barnes, H.M. late St. Helena Regiment.

DEATHS.

HOLMES, THOMAS JAMES, M.D., at Tudor House, Lyme Regis, on October 13, aged 65.

JOHNSTON, JAMES WINGATE, M.D., Inspector-General R.N., Honorary Surgeon to the Queen, at Southsea, on October 17.

KING, ESTHER, wife of Robert King, M.D., F.R.C.P., of 48, Harley-street, W., at Bargaly, Newton Stewart, N.B., on October 11, aged 33.

PALMER, THOMAS, M.D., formerly of Radnor-place, Hyde-park, at 23, Clifton-terrace, Brighton, on October 8, aged 63.

RHODES, CHARLES, M.D., at Weymouth, on October 17, aged 41.

VACANCIES.

BURTON ON TRENT INFIRMARY.—House-Surgeon. Salary £120 per annum, with residence in the Infirmary free. Candidates must be duly qualified. Applications, stating age, previous experience, and accompanied by testimonials, must be sent in to the Honorary Secretary, Mr. J. C. Grimbling, Burton-on-Trent, on or before October 16.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician. Candidates are required to have degrees from one of the universities recognised by the General Medical Council, and to be Fellows or Members of the Royal College of Physicians of London, and to reside within three miles of the Hospital. Diplomas and testimonials of qualification to be sent to the Secretary, W. Shoolbred, on or before October 23.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Dental House-Surgeon. (*For particulars see Advertisement.*)

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Ophthalmic Surgeon. (*For particulars see Advertisement.*)

METROPOLITAN FREE HOSPITAL, 81, COMMERCIAL STREET, SPITALFIELDS, E.—House-Surgeon. (*For particulars see Advertisement.*

MIDDLESEX HOSPITAL, W.—Assistant-Surgeon. (*For particulars see Advertisement.*)

NORTH-WEST LONDON HOSPITAL, KENTISH TOWN-ROAD, N.W.—Ophthalmic Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and not practising midwifery or pharmacy. Applications, with testimonials, to be sent to the Secretary, Alfred Craske, on or before October 28.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, WIGAN.—Salary £80 per annum with apartments and rations. Candidates must be qualified and be prepared to enter into an agreement not to practise in the Wigan Union for a period of three years from the date of appointment. Applications, stating age and qualifications, with testimonials, to be delivered to the Secretary not later than twelve o'clock on October 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD-STREET, MOORFIELDS, E.C.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications and testimonials to be addressed to the Secretary on or before eleven o'clock in the morning of October 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD-STREET, MOORFIELDS, E.C.—House-Surgeon. (*For particulars see Advertisement.*

SCARBOROUGH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £200 per annum, with fees extra, and residence (free of rates and taxes), coals, and gas. Candidates must be doubly qualified, registered under the Medical Act, and not under thirty years of age. Applications, with testimonials of recent date as to character and professional ability, to be sent to the Secretary, Hugh Watson, St. Mary's-walk, Scarborough (from whom may be obtained all further particulars), not later than October 23.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Lincoln Union.—Mr. Joseph Goodall has resigned the First District and the Workhouse; population 37,312; salary £120 per annum for Workhouse and District. Also the Third District; area 11,559; population 2881; salary £35 per annum.

Tynemouth Union.—Mr John W. Bramwell has resigned the Tynemouth District; area 1188; population 22,515; salary £90 per annum.

APPOINTMENTS.

Brighton Parish.—Douglas McKissock Ross, M.B. Edin., F.R.C.S. Eng., to the Workhouse and the Warren Farm Schools.

Crediton Union.—Charles H. Hayeroft, M.R.C.S. Eng., L.S.A., to the Bow District.

Eastbourne Union.—Henry D. Farnell, M.R.C.S. Eng., L.S.A. Lond., to the Workhouse

Eton Union.—John Spencer Ferris, M.R.C.S., L.R.C.P., M.B., L.S.A. Lond., to the Denham District

Knaresborough Union.—Arthur O. Wiley, L.R.C.S. Ire., L.R.C.P. and L.M. Edin., to the Scriven District.

Newport (Salop) Union.—Charles E. Baddeley, M.B. Lond., M.R.C.S. Eng., L.S.A., to the Gnosall District.

Northbrech Union.—John Ryan, L.R.C.S., L.K.&Q.C.P.I., L.M., to the Second District.

Penrith Union.—Alexander Macdonald, L.R.C.P. Edin., L.R.C.S. Edin., to the Kirkoswald District.

THE JACKSONIAN PRIZE.—The subject for this prize of the Royal College of Surgeons for the ensuing year (1883) is: "The Pathology, Diagnosis, and Treatment of Obstruction of the Intestines in its various forms in the Abdominal Cavity."

UNIVERSITY COLLEGE, LONDON.—Andrews Entrance Prizes of £20 have been awarded—for Science to T. Varley and J. H. Hooker, and for English and other languages to T. M. Neatby. The Medical Entrance Exhibition of £100 has been awarded to H. P. Dean; that of £50 to W. P. May; and that of £40 to C. W. Jecks. L. A. Legros has gained the Gilchrist Entrance Scholarship in Engineering of £35 per annum for two years.

APPOINTMENTS FOR THE WEEK.

October 21. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

23. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Radcliffe Crocker—Skull-cap from a Case of Congenital Syphilis, which was shown last session. The President, Mr. Francis Mason, "On a Case of Gastrotomy" (with specimen). Mr. Thomas Bryant, "On Inflammation and Ulceration of the Tongue."

24. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Barwell, "On Dislocation of the Foot, with Version and Torsion of the Astragalus." Dr. F. Warner, "On Ophthalmoplegia Externa complicating a Case of Graves's Disease."

25. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Symes Thompson.

HUNTERIAN SOCIETY (Royal Institution), 8 p.m. Dr. Charlewood Turner will show a Heart of Two Chambers. Dr. Herman, "On the Clinical Classification of Backward Displacements of the Uterus."

26. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

27. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

QUEKETT MICROSCOPICAL CLUB, University College, Gower-street, 8 p.m. Mr. T. W. Morris, "On the Fibro-vascular Bundles in Ferns, and their Value in determining Generic Affinities."

CLINICAL SOCIETY OF LONDON, 8½ p.m. Mr. Walsham, "On a Case of Gunshot Injury of the Lower Jaw." Dr. Mahomed and Mr. Pepper, "On a Case of Ligature of the Common Carotid Artery for Hæmorrhage from the Throat due to Ulceration after Scarlet Fever." Dr. Crocker, "On a Case of Hæmaturia from Bilharzia Hæmatobia" (specimens of the parasite will be shown). Mr. Golding Bird, "On a Case of Removal of the Uterus for Fibroid Disease."

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 14, 1882.

BIRTHS.

Births of Boys, 1256; Girls, 1221; Total, 2477
Corrected weekly average in the 10 years 1872-81, 2[illegible]4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	791	772	1563
Weekly average of the ten years 1872-81, corrected to increased population ...)	751·6	717·7	1469·3
Deaths of people aged 80 and upwards			58

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (increased).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric(or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669833	...	3	7	3	2	...	5	1	5
North ...	905947	3	6	19	8	10	1	1	...	11
Central ...	2[illegible]2238	...	...	10	5	1	...	2	...	7
East	692738	...	4	19	2	4	1	1	...	14
South	1265927	1	11	23	8	6	1	8	...	11
Total	3816483	4	24	78	26	23	3	26	1	48

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·719 in
Mean temperature	54·1
Highest point of thermometer	69·1
Lowest point of thermometer	44·1
Mean dew-point temperature	50·8
General direction of wind	Variable.
Whole amount of rain in the week	0·49 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct 14, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Oct. 14.	Deaths Registered during the week ending Oct. 14.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.). Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.). Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2477	1563	20·9	69·1	44·1	54·1	12·28	0·49	1·24
Brighton	109595	50	31	14·8	64·5	43·3	54·1	12·28	0·37	0·94
Portsmouth ...	129916	67	50	20·1	...	...	...	...	...	...
Norwich	88821	38	27	15·9	...	...	...	...	...	...
Plymouth	74449	55	18	12·6	60·1	40·0	51·3	10·73	0·47	1·06
Bristol	210134	123	66	16·4	63·8	40·6	50·7	10·39	0·97	2·46
Wolverhampton .	76756	54	22	15·0	59·8	38·8	48·8	9·24	1·60	4·06
Birmingham ...	408526	282	159	20·3	...	...	...	...	...	...
Leicester	126275	86	40	16·5	62·2	39·0	51·2	10·67	1·11	2·82
Nottingham ...	193573	131	65	17·5	62·8	40·8	51·6	10·90	0·75	1·90
Derby	83587	69	36	22·5	...	...	...	...	...	...
Birkenhead ...	86582	78	31	18·7	...	...	...	...	...	...
Liverpool	560377	392	201	18·0	60·1	42·4	50·6	10·34	0·37	0·94
Bolton	106767	84	50	24·4	60·1	38·5	50·5	10·28	0·55	1·40
Manchester ...	340234	235	159	25·2	...	...	...	...	...	...
Salford	184694	119	78	21·3	...	...	...	...	...	...
Oldham	115572	76	76	34·3	...	...	...	...	...	...
Blackburn	106460	73	48	23·5	...	...	...	...	...	...
Preston	97656	81	48	25·6	...	...	...	...	...	...
Huddersfield ...	83418	58	34	21·3	...	...	...	...	...	...
Halifax	74713	38	26	20·3	...	...	...	...	...	...
Bradford	200158	120	85	15·4	58·7	45·4	51·5	10·84	0·87	2·21
Leeds	315998	257	165	27·2	60·0	42·0	52·7	11·50	1·10	2·79
Sheffield	295816	218	119	21·4	62·3	41·0	51·4	10·78	1·04	2·64
Hull	158814	107	63	20·7	60·0	42·0	52·7	11·50	0·85	2·16
Sunderland ...	119065	73	66	28·9	65·0	42·0	52·4	11·33	0·53	1·35
Newcastle	147626	93	75	26·5	...	...	...	...	...	...
Cardiff	83724	60	42	25·3	...	...	...	...	...	...
For 28 towns...	8469571	5524	3522	21·7	69·1	38·5	51·7	10·95	0·81	2·06
Edinburgh	232440	146	70	15·7	57·3	40·9	51·9	11·06	1·05	2·67
Glasgow	514048	393	228	23·1	59·0	46·0	53·7	12·06	1·20	3·05
Dublin	348293	194	163	24·4	61·8	33·2	50·2	10·11	0·75	1·96

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·71 in. The highest reading was 29·98 in. on Monday morning, and the lowest 29·33 in. on Thursday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

A Correction.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me to correct the following misprints which occur in the copy of Professor Paolini's letter in your last impression?

Line 3, *for* "ella," *read* "Ella"; line 9, *for* "attribuarlo," *read* "attribuirla"; line 3 in the last paragraph, *for* "enigraziamenti alermi," *read* "ringraziamenti alcuni." I am, &c., GEORGE JOHNSON.

W. L.—It is a German proverb which says, "He lies like a tombstone and is as impudent as a newspaper."

Ancient Fees.—Boerhaave states that before there were any professed physicians, it was the custom among the ancient Egyptians, when anyone was sick to inquire of neighbours and passengers if they knew any remedy proper for the patient. But ever since the study of physic has been a profession, it has been both honourable and lucrative. The customary salary which princes paid their physicians about the time of Christ's birth was 250 sestertia, or about £2045 sterling. Sertimius complained that he had only a salary of 500 sestertia, or £4136 9s. 2d., when he had by his private practice 600 sestertia, or £4843 15s.

Emigration.—The Liverpool returns of emigration for September show a slight decrease as compared with those of last year, but the departures exceeded 20,000, of whom more than 13,000 were English emigrants.

Dairy Show, Ireland.—The International Dairy Show, under the joint auspices of the Royal Dublin Society and the Royal Agricultural Society of Ireland, was opened last week at the Royal Dublin Society's premises. There were over seven hundred entries of butter, cheese, honey, dairy cattle, dairy appliances, &c., and the Exhibition, which is almost entirely confined to Irish exhibitors, is highly worthy of public support.

A Cottage Hospital.—At Aylburton-upon-Severn, Newnham, a cottage hospital was opened last week. The institution originated with Mrs. Bathurst, of The Park.

Alleged Organic Water Impurity.—The report of the outbreak of typhoid fever at the barracks of the Metropolitan Police at Portsmouth Dockyard, attributing it to impure water, has been the subject of a communication from the Superintending Engineer, Major Grover, who has written to the directors of the local water company to the effect that there is no ground whatever for the alleged impurity of the water-supply, and that a report received from the Admiralty chemist upon several samples of the water supplied to the police quarters in question, states that, after testing, he finds no difference between them, and that the water is of excellent quality as regards freedom from organic impurity.

Football Casualties.—The football season has begun, and already bad accidents have occurred. At Sheffield, it is reported, in a match played a few days since by Association rules, the ball was kicked into a man's face, smashed his nose and broke his jaw. A collar-bone was also broken in a game at the Darwen Football Club. The Rugby game, which permits catching the ball, discourages kicking high at it before it reaches the ground, and thus renders this sort of accident very much less probable.

Public Recreation Grounds.—At Penenden Heath, Maidstone, some twelve acres of land have been dedicated for the use and recreation of the public. The Heath originally comprised thirty acres, but of late years encroachments have been going on, and to prevent its being entirely absorbed it has been enclosed, and thus appropriated.——The Town Council of Weston-super-Mare have accepted the offer of Mrs. Henry Davies to give certain land, valued at £7000, as a people's park, to perpetuate her late husband's memory.

Anti-Vaccination, Natal.—An Anti-Compulsory Vaccination League has been organised in Natal under the presidency of Archdeacon Colley, who is reported to have expressed his determination to go to prison rather than act contrary to his principles.

Preservation of Dead Bodies for Identification, France.—Every corpse that is taken to the Morgue is now quickly converted into a block, almost as hard as stone. This result is obtained by Carré's chemical refrigerator, which is capable of reducing the temperature of the gruesome "conservatory," where each body is laid out on something closely resembling a camp bedstead in stone, to 15° below zero centigrade. At the back of this *salle* is a row of stove-like compartments in which the corpses are boxed up and frozen hard before being exposed to public view. As an illustration of the intense cold thus artificially secured, a Paris journalist, in describing a recent visit to the Morgue, says that in opening one of the compartments the attendant took the precaution to wear a glove lest "his hand should be burnt by contact with the cold iron." The corpse, which was taken out of its receptacle, had been there nine hours. During the experiments which preceded the adoption of the new system, corpses in this frozen state were actually thrown about, but although they made *un fracas terrible*, they were "not in the least damaged."

The Port of London Sanitary Authority.—Dr. Collingridge, the Medical Officer of Health of the Port of London, in his last half-yearly report, remarks—"Small as is the present staff, in consequence of the valuable assistance and co-operation of the various authorities and officials connected with the docks, Her Majesty's Customs, Thames Conservancy, police, and others, the sanitary service is at the present time in a state of thorough efficiency, and could be readily extended in the face of any serious epidemic or invasion of disease."

To Anti-Vaccinators.—The report of the Medical Officer of Health to the Health Committee of the Rochdale Town Council supplies fresh and conclusive evidence that vaccination is a preventive of death from small-pox. The number of persons attacked with the disease during the late epidemic was 906, and of that number 105 had died, of whom 60 were not vaccinated. It had been ascertained that the unvaccinated numbered 107, consequently 56 per cent. of the unvaccinated patients had succumbed to the disease: 742 were vaccinated, and 32 of them died, which amounted to 4·3 per cent. Further, only 3 persons who were revaccinated took the disease, and all recovered.

An Editor's Privileges.—The judge of the Nantwich County Court has decided that an editor might alter an advertisement to prevent libel. An application for a small account was made by Dr. Mackie, of the *Warrington Guardian*, to test the matter; the payment of an advertisement having been refused, on the plea that he had changed "machinations" to "doings."

Philanthropic.—The Hon. Mrs. Vernon has organised a praiseworthy movement for the erection of a children's convalescent home near the village of Dundonald. The cost of the building and furnishing the home is estimated at £800. The proposal has already received influential and generous support.

Sewage Pollution of a Stream.—In the Chancery Division a motion has just been considered by the Court for sequestration brought forward by Balliol College against the Guardians of Tynemouth Union, as Rural Sanitary Authority for the borough, for a breach of an order of the Court, which was granted in June last, restraining them from causing or permitting any sewage of their district to flow into the stream used by the College and farm, unless such sewage had been properly deodorised. It appeared that the order of June had been extended to September, and the plaintiffs' evidence showed that the fouling of the stream had continued since that date. For the defendants it was urged that they had done their best to have the extensive works required by the order completed, but had been unable to do so. Affidavits by gentlemen of eminence were produced, which were to the effect that the works had now been completed, and it was hoped, under these circumstances, the order for sequestration would not be pressed for. Plaintiffs' counsel hereupon proposed that the order should be made, but should lie in the office for a week, and then, if the works were not completed, to take effect. The judge was of opinion the plaintiffs had got all they required, and he should make no order on the motion, but the defendants must pay the costs of the application.

Templar.—Victoria passed in 1876 a comprehensive and complete licensing law. Victoria has seven varieties of licence, costing from £2 up to £25, but it is only as regards the publican's licence, costing the latter sum, that new licences are prohibited till after the ratepayers have voted on the question of whether any increase at all is to be allowed or not.

Citizen.—The Local Government Board have assented to the salaries of the seven day-nurses at the City of London Union being increased yearly from the present maximum until they reached £30 per annum, after which the Board would no longer entertain a proposal for further augmentation. The Board considered the maximum wages of the night-nurses—£25 per annum—sufficient, and also suggested the appointment of a superintendent night-nurse.

Local Sanitary Authorities: a Test Case.—An arbitration case of some importance to sanitary and other local authorities was considered at the Guildhall, Wrexham, lately. The plaintiff is an owner of cottage property at the Lodge, Brymbo, a mining district in North Wales, and the defendants were the Wrexham Rural Sanitary Authority. The case for the plaintiff was, that in carrying out certain drainage works at Brymbo, damage was caused to his property to the extent of £4 10s., which he claimed from the Sanitary Authority. Other property in the same neighbourhood is in a similar damaged condition. The contention on the part of the Sanitary Authority was—first, that no actionable damage could be proved in the present case, inasmuch as the plaintiff has obtained no legal right to have his buildings supported, they not having been standing for twenty years, as required by law to give such a user of the land as would entitle him to claim actionable damages in the event of injury to his property by the commission of a lawful act upon adjoining property, such, for instance, as the making of a drain. But even if he had such legal right, the defendants further submitted that they were not liable, and contended that the damage to the plaintiff's property was due to mining operations, the district being honeycombed with workings, and was caused long before the work of cutting the sewers by the Sanitary Authority was begun. Some thirty witnesses were called, comprising building surveyors, mining engineers, sewerage contractors, and others. The award is not expected to be known for some little time.

Hampstead Home Hospital and Nursing Institution.—This Institution (promoted by Dr. W. Heath Strange, of Belsize Park) is now open for women and children, temporary premises having been taken in South Hill-park-road, near Hampstead.

Oleo-margarine, United States.—It is proposed to levy a stamp-tax of one cent upon every pound of oleo-margarine manufactured in the United States. This small impost is scarcely likely to affect to any extent the consumption of that commodity in this country. It is stated that at a great northern seaport the largest customers of the butterine importers are the farmers of the surrounding country. They work it up into "rolls" or "shapes," and retail it in the market as the genuine British dairy product, and make considerable profits by it.

A New Workhouse.—The Vestry of St. George's, Hanover-square, it is stated, have obtained a site opposite the Royal Mews entrance to Buckingham Palace, on which to erect a workhouse and casual ward.

An Attractive Picture of San Francisco.—The *Alta California*, writing on this subject, states:—"It is a city choked up with dust and sand, a city full of bad and incomplete sewers, broken side-walks, and delicately rotten pavements—such is the city of San Francisco in August, 1882. Yesterday (a warm day in August was a quiet still morning, a very incarnation of the idea of rest, but the mephitic gases oozed up everywhere from choked cesspools, and entered windows of rooms where babies and mothers were sleeping, and forced their foul and poisonous germs of disease down their throats. This is the Queen of the Pacific, which has more dead going every day to her cemeteries than there are bad men in Chicago."

Notification of Infectious Diseases.—The Toxteth Local Board has just unanimously passed the following resolution:—"That this Board recognises the great importance of early notification of infectious diseases being given to health authorities, and trusts that the Health Committee of the Liverpool Corporation will be successful in their efforts to obtain compulsory registration."

COMMUNICATIONS have been received from—

Mr CLEMENT LUCAS, London; Mr. ELDAIOGE SPRATT, London; THE HON. SECRETARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, London; Mr. THOS. FINE, Newcastle-on-Tyne; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. NORMAN CHEVERS, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Mr. J. CHATTO, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Mr. H. D. REED, London; Dr. ALEXANDER, Liverpool; Dr. SIDNEY COUPLAND, London; Mr. J. E. INGPEN, London; THE SECRETARY OF THE FRENCH HOSPITAL AND DISPENSARY, London; Mr. JOHN RUSSELL, London; Mr. J. F. FINE, London; Mr. O'CONNOR, Portsmouth; Mr. ALFRED CLARKE, Farnborough; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD, London; Dr. G. JOHNSON, London; Dr. GILLESPIE, London; Dr. MATTHEWS DUNCAN, London; THE SECRETARY OF THE MIDLAND MEDICAL SOCIETY, Birmingham; THE SECRETARY OF UNIVERSITY COLLEGE, London; THE SECRETARY OF THE SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN, London.

BOOKS, ETC., RECEIVED—

Zur Kenntniss der Leukamie und Pseudoleukämie im Kindesalter, von Prof. Dr. H. Senator—Ueber die therapeutische Anwendung der Schutzpocken. Dr. H. Senator—Essentials of Vaccination, by W. A. Hardaway, M.D.—Quarterly Report of the Devonshire Hospital and Buxton Bath Charity—The Physician Himself, etc., by D. W. Cathell, M.D.—Typhus and Typhoid Fever, by Henry Simpson, M.D.—Medical Diagnosis, by J. Graham Brown, M.D.—The Teeth, by S. H. Linn, M.D., D.D.S.—Diet for the Sick, by J. James Ridge—Regional Surgery, by F. A. Southam, M.A., M.B., F.R.C.S.—Proceedings of the Society for Psychical Research—Notes on the Antagonistic Action of Medicines, by John H. Clarke, M.D.—On Vaccination, by W. H. W. Wilkinson, L.R.C.P.—Lectures on Consumption, by J. B. Yeo, M.D.—Human Morphology, by H. A. Reeves, F.R.C.S.—The Girl's Own Annual—Das Stottern, Stammeln, etc., von Dr. Rafael Coën—An Ephemeris of Materia Medica, etc.—The Boy's Own Annual—Stricture of the Rectum, etc., by Robert Newman, M.D., New York—The Theory and Practice of Medicine, by John Syer Bristowe, M.D., F.R.S.—Transactions of the American Otological Society, vol. iii., part 1.—First Aid to the Injured, by Dr. Friedrich Esmarch—The Science and Practice of Midwifery, vols. i. and ii., by W. S. Playfair, M.D., F.R.C.P.—Howard Association Report, 1882—Société Médicale des Hopitaux de Paris, tome xvii., deuxième série, 1880—On Duty under a Tropical Sun, by Major S. L. Hunt and Alex S. Kenny, M.R.C.S., A.K.C.—Vaccination, by the Ven. Archdeacon Cassics, by Henry Gray—Proceedings of the Society for Psychical Research—A Key to all the Waverley Novels, by Henry Gray—The Chamberlens, etc., by J. H. Aveling, M.D., F.S.A.—Evidence and Reports on the Examinations of the Faculty of Physicians and Surgeons of Glasgow.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Ciencias Médicas—Students' Journal and Hospital Gazette—Therapeutic Gazette—Revista de Medicina—Night and Day—The Philanthropist—Medical News—Western Medical Reporter—North British Daily Mail, October 14—Revue des Sciences Médicales—Physician and Surgeon—Birkenhead and Cheshire Advertiser, October 14—Journal of the Scottish Meteorological Society—Journal of the British Dental Association—Canadian Journal of Medical Science—Journal of Nervous and Mental Diseases—Canada Lancet—Chemist and Druggist—Manchester Guardian, October 16—Food Reform Magazine—Weekblad—Revue de Chirurgie—Revue de Médecine.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF WOMEN.

Delivered in St. Bartholomew's Hospital.

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery at the Hospital.

LECTURE II.—ON PELVIC SIGNS.

GYNÆCOLOGICAL investigations are, of course, chiefly carried out in the hypogastric region and in the pelvis; and the access from below, through the vagina, urethra, and rectum, gives you power of more immediate examination of the pelvic organs than you have of the abdominal organs. You examine from above through the hypogastric and iliac regions; from below, as already said; and, in addition, you can, for the digital or manual part of the examination, combine the two methods, making what is nowadays called the bimanual examination. By one or more of these plans you can often feel every individual organ as if you had it out of the body—lying before you.

Here your diagnosis is effected by sight and by touch, the latter being done directly, or indirectly by instruments.

You see the pudendum, and, if need be, scan all its parts, thus occasionally finding unexpected disease. The vagina you can see by speculum, and through it you may sometimes see far into the cavity of the cervix uteri; and, of course, you see the vaginal portion of the cervix. The interior of the urethra and bladder may be imperfectly seen by passing a small Fergusson's speculum into or through the dilated urethra. Very little information is gained by passing, as can sometimes be done, a similar speculum into or through the previously dilated cervix uteri. There are various specula by which you may see the lower parts of the rectum.

By the finger passed through the dilated urethra you may feel the interior of that channel and of the bladder, or examine simply or bimanually the fundus of the bladder and the adjacent uterus and ovaries; but this examination is rarely made, and, when it is done, its object is almost exclusively to find out the condition of the vesical walls. By a vesical sound you ascertain the dimensions, the tenderness, and the elasticity of the bladder. The tenderness and softness of the bladder should also be made out by pressing on it with the finger passed per vaginam. This may also be done bimanually; for in a healthy and easily examined abdomen the finger in the vagina can be made to meet and press the fingers depressing the hypogaster. The bladder is generally felt as a soft indefinable sac; very rarely, even in disease, as a rounded soft, tumour-like mass adherent to the uterus, suggesting the idea of a uterine fibroid of the anterior wall or of a vesical calculus.

The position, size, direction, shape, tenderness, and mobility of the uterus and of its parts are made out by the simple digital examination, or by this along with the bimanual. Not rarely, further information, or more exact information, as to these points is sought by passing a uterine probe into the uterine cavity and manipulating with it. Occasionally still further knowledge is to be acquired by dilating the cervix uteri, and sometimes even the body of the organ, by tents or by some instrument for the purpose, with a view to the passage of the finger into the interior. But the finger is not long enough to reach the fundus uteri, the cavity being dilated, unless the fundus is pushed down on the finger by pressure from above through the hypogaster. Often even this is not enough, and then a volsella is fixed in the cervix and the uterus is pulled down on the finger while an assistant presses the fundus down. It is generally supposed that after dilatation the fundus can be felt from within by resorting to these plans: but that is not always the case. Especially in women with thickly fat and tight abdominal wall the fundus cannot be reached unless the hand is passed into the vagina, and that is a painful and rarely necessary proceeding. In the use of the volsella, and of course for the more severe method, an anæsthetic is generally demanded.

Digital examination per rectum is a valuable resource in uterine disease, for through the anus the finger can reach further parts of the true pelvic cavity than it can through the vagina. Indeed, if the laquear is tight, as is not rarely the case, a fibroid may escape the vaginal finger while it is easily accessible to the rectal. Besides, there are many cases with entire hymen where all desiderated information can be obtained per rectum. In a virgin it is always desirable to avoid vaginal examination, and it is rarely required. Per rectum, the size, position, and tenderness of the uterus and ovaries can generally be well made out.

In a healthy woman the ovaries are often not to be found in any way; but it frequently happens that, in a thin person, favourably disposed for examination, they can be well felt by the bimanual method. In many, if they are low down, they can be easily made out by a digital examination per vaginam or per rectum.

The bones of the pelvis are not to be neglected in vaginal, rectal, and external examination, for they may be the seat of ordinary bone-disease or of dislocation, or they may present painful aching parts, the result of injury, as by forceps-delivery or by ordinary accidents. The state of the sacro-iliac, of the pubic, and of the sacro-coccygeal joints has also to be considered.

Much has been said of diagnosing disease of the Fallopian tube or tubes, especially their dilatation by fluids, and no doubt some degree of assurance may be got by careful bimanual exploration. But at best the diagnosis, in the present state of our knowledge and appliances, is a very rough guess.

Examining the uterus, you may wish to ascertain its state as regards the patency and rigidity of the canal of the cervix. A stricture (whether congenital or acquired) you will very rarely find, but it is not rare to find a small canal—that is, one which does not easily pass a No. 9; and you may ascertain rigidity by finding a kind and degree of difficulty in passing a No. 9 through the internal os, or in passing that size which fills up the ordinary capacity of the part; and such urged passing induces spasms like those of characteristic dysmenorrhœa. Most supposed strictures are not such, but mere tortuosities of the channel; or the practitioner is deceived by the point of the probe catching in a fold of the arbor vitæ. If, in such circumstances, he changes the direction, and perhaps also the size, of his probe, he will find the passage free enough; and he may further facilitate the little operation of so-called catheterising the uterus by pulling on the anterior lip of the cervix seized by a little hook.

If you find anything in the pelvis that is unusual, you go over on it all the categories of qualities which I enumerated in my last lecture. Some of them are not to be got, such as true fluctuation; and there are some which are very striking here and scarcely remarked in the abdomen. For instance, a swelling, such as a perimetritis, or a parametritis, or a hæmatocele, may be convex or bulging, then flat, then concave as it gradually disappears; and in accordance with these qualities the uterus will be displaced towards the healthy side, and gradually, as the swelling becomes concave to the examining finger, it will be drawn to the affected side, and with the disappearance of swelling be fixed or nailed to the affected side.

For all ordinary examinations you use the position on the left side, called the English obstetrical position. But for a thorough examination of the vulva or of the pelvis you often resort to the lithotomy position, a proceeding very disagreeable to the patient. For bimanual examination the best position is flat on the back, the legs bent, the feet on the table, the finger or fingers of the right hand in the vagina or rectum, the left hand on the hypogastrium. It is common to find Frenchmen practising examination in the erect position of the female; but I never do this, and I say so after a little experience of the plan in Paris. In defence of the method it is alleged that the position of the organ, especially as to descent, cannot otherwise be accurately judged; and I admit that this is a nice and important point for investigation in many cases. Now, mere position of a woman has much to do with descent, but not so much as effort, such as in lifting or in bearing down, especially the latter; and this bearing down can be done in the lying position. You will notice that in making examinations in "Martha," I often urge the woman to bear down strongly, and encourage her to continue the effort, and in this way I

get all the information wanted. On her side a woman can easily press out a replaced procident uterus, which kept inside while she came into the theatre and got on the table. A woman can often, while lying on her side, by bearing down press out a pessary which keeps its place very well during her ordinary every-day life. In the same way, when examining the lowest part of the rectum, you get it exposed by the bearing-down efforts, which press out internal piles if there are any. When you assist the woman to press out a prolapsed womb, you push the hypogastric region in the axis of the brim: when you assist to express piles, you pass the finger into the vagina, and press that part of the posterior wall of the vagina which overlies the anus.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow; Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

Lecture XIII.

B.—ORGANIC AFFECTIONS.

I.—Those defined by Uniform Causes.

2. *Syphilitic Affections of the Skin.*

Having thus dwelt at some length upon the general diagnosis of Syphilitic Eruptions, it will be unnecessary to enter so fully upon the individual forms, and the remarks which follow must therefore be taken along with those which have just been made.

I. Secondary Eruptions (the early manifestations of Syphilis).

These generally begin to make their appearance from a month to six weeks after the development of the chancre, and, at the outset, are often accompanied by some disturbance of the system, and febrile symptoms, especially if the manifestations appear rapidly and in abundance, but the fever soon subsides, although the patient has an appearance of ill-health, and the skin assumes a dirty earthy tint which becomes more marked the longer the poison has been in the system (Cachexia Syphilitica).

i. *Exanthematous Syphilides.*

A. *Roscola Syphilitica.*

This is the earliest and the most constant of syphilitic eruptions, appearing usually about six weeks after the development of the chancre. It is very apt to be overlooked, but is not invariably present, as some have asserted. It is oftenest met with on the trunk (especially on the anterior surface) of the body, often on the insides of the limbs, as well as upon the palms and soles, but is rarely observed upon the face and neck.

It consists of oval, rounded, or irregular blotches, varying in size from a pea to a shilling, which in the early stage may be very slightly elevated, and unattended by either heat or itching. At first they have a rosy or a dusky-red tint, the colour disappearing on pressure; but later they may assume somewhat of a coppery appearance, and may leave behind for some time brownish or yellowish pigmentary stains, which of course do not disappear on pressure. This eruption gives to the skin a peculiar mottled appearance, and, if slight, is very apt to be overlooked unless the body be regarded from different points of view. It may appear gradually and without reaction, or suddenly and with fever, sometimes as the result of an exciting cause, such as taking a hot bath or a bout of drinking. Its duration varies from two or three weeks to two or three months, but once it has gone it has no tendency to reappear.

It is almost always associated with other syphilitic lesions, such as an indurated cicatrix at the site of the chancre, superficial ulceration of the fauces and of the angles of the mouth, nocturnal pains in the joints, enlargement of the glands at the back of the neck, alopecia, or one or more of the other secondary eruptions about to be mentioned.

It somewhat resembles the eruption of *Typhus*, but the latter is of short duration, is more dusky in tint from the first, after a day or two does not entirely disappear on pressure, and commences from the fourth to the seventh day after the appearance of the constitutional symptoms, which are so pronounced as to be quite sufficient of themselves to prevent error.

It may be distinguished from *Morbilli* (*Measles*) by the following circumstances:—The eruption in Measles appears on the fourth day on the temples and nape of the neck, whence it spreads forwards to the face and down the body, appearing last on the lower extremities; it is more papular in character, crescentic in outline, of a brighter tint, and begins to fade in four or five days. It is also accompanied by catarrh of the eyes and respiratory tract, while there is an absence of other signs of Syphilis and no history of contagion.

The *Roscola* sometimes resulting from the administration of Copaiba may be known from its usually occurring in persons who are labouring under Gonorrhœa and who have been taking that medicine, from its commencing usually about the wrists and being common on the face, from its being very itchy, and soon subsiding after the removal of the cause, and from the absence of other signs of Syphilis unless as a coincidence.

B. *Erythema Syphiliticum* differs from Roseola Syphilitica in that the patches are larger and less numerous, and, though they may commence about the same time, they often remain long after it has disappeared. They may also reappear even years after the entrance of the poison into the system, which Roseola never does.

Simple Erythema should not be confounded with it, for the former often appears upon the face, the patches are lighter in colour, less stationary, less chronic, and accompanied by itching or heat, and without a history of Syphilis or the presence of other syphilitic manifestations.

ii. *Papular Syphilides* (*Lichen Syphiliticus*).

This is an early and frequent secondary eruption, though not so constantly present as Roseola. It rarely appears suddenly and with fever, but frequently in successive crops, so that the papules are often seen in different stages of their development. It may appear on any part of the body, but oftenest on the neck, back, and sides, and it is not uncommon on the palms and soles. The papules may be of small size, from that of a millet-seed to a split pea, and considerably elevated, but sometimes instead of, or mixed with these, large flat papules from the size of a fourpenny to a sixpenny piece are observed (Papulo-tubercular eruption—the Syphilide papuleuse plate of the French). The eruption, which is not itchy, has at first a rosy tint and disappears on pressure, but later it is apt to become coppery in tint and to leave pigmentary stains behind it. In the second stage desquamation occurs at the summit of the papule, and the partially detached epidermis thus forms a narrow white fringe around the edge of each.

Sometimes the papules suppurate at their summits (Lichen Syphiliticus pustulosus—Acne Syphilitica), and the pus dries into brownish crusts, which leave, on falling, coppery stains, or even minute ulcers followed by slight depressed cicatrices.

The eruption may be scanty, and the papules scattered (Lichen Syphiliticus disseminatus), or very abundant and closely packed (L. S. confertus), or in clusters (L. S. corymbosus), or forming circles or segments of circles (L. S. annulatus).

The papular Syphilides may last from several weeks to several months, especially if they appear in successive crops, and no appropriate treatment be adopted. When the soles and palms are attacked, owing to the thickness of the cuticle, the papules are not well developed, but the epidermis over them is apt to become hard and horny: finally the cuticle exfoliates, and round coppery stains are left. Occasionally too they become confluent, and complicated with fissures (Syphilide cornée of Biett).

Ordinary *Lichen* (Eczema lichenoides) cannot readily be mistaken for a papular syphilide, seeing that it is intensely itchy, has no tendency to assume a coppery tint, and is unaccompanied by other manifestations of Syphilis.

Syphilitic Acne might possibly be mistaken for ordinary *Acne* (Acne vulgaris), but the latter is a much more chronic affection, often lasting for years, has a special tendency to commence at puberty, is not so coppery in tint, and is generally located on the face, shoulders, and upper part of the front of the chest, while the seats of predilection of Syphilitic Acne are the extremities and head. In the former also there is the absence of a syphilitic history, or of any concomitant syphilitic lesions.

iii. *Condylomata (Mucous Patches)*

constitute one of the earliest and most frequent of the earlier manifestations, though they sometimes persist for months after the others have disappeared. Their seats of predilection are:—

1. On the mucous membranes of the genital organs and mouth, being especially frequent on the fauces where they are often symmetrical and kidney-shaped, on the insides of the lips, and on the sides of the tongue.

2. At the junction of the skin and mucous membrane, especially at the anus, at the margins of the labiæ, at the angles of the mouth, and at the edges of the nostrils.

3. Where folds of skin are in contact with one another, being favoured by the heat, moisture, and friction to which these parts are subjected, as at the umbilicus, in the axillæ, beneath the mammæ, between the toes, etc. At these parts they are specially liable to occur if there be not great attention to cleanliness.

The eruption consists of soft tubercles from the size of a pea to that of a very small marble. Their edges are distinctly circumscribed; sometimes they are the colour of the skin, sometimes of a reddish tint; and their summits are rounded, except where opposed tubercles are pressing against one another, when they become flattened on the top. Sometimes they are isolated; at other times they occur in groups. At first they are dry, but soon their summits have a tendency to become excoriated, exuding a nauseous whitish fluid loaded with macerated epithelial cells; often they are the seat of fissures, especially at the anus, and at the angles of the mouth; and less frequently they become ulcerated. On the mucous membrane of the mouth they are very flat, indeed are often hardly elevated at all, and have generally more or less the appearance of superficial ulcers which have been gently touched with caustic.

Mucous patches differ from the syphilitic eruptions hitherto considered, in that they are decidedly contagious in virtue of the exudation above referred to, that itching is a frequent symptom, and that they do not display the copperytint.

Condylomata must not be mistaken for *Warty Excrescences*, which, though common in syphilitic subjects, and often occurring as a complication of Mucous Patches, have nothing specific about them, and are apt to result from the irritation of decomposing secretions, no matter what the nature of these secretions may be. They may be sessile or pedunculated, have a warty appearance, and may occur in isolated spots or in closely set masses like the head of a cauliflower (hence the term Cauliflower excrescences, often applied to them); they are not influenced, like Condylomata, by anti-syphilitic treatment, and are often cured by mere attention to cleanliness and keeping the parts separate.

iv. *Squamous Syphilides*

To these the term Psoriasis Syphilitica is often applied, especially when the eruption resembles ordinary non-syphilitic Psoriasis, but they must be regarded rather as the second, scaly, stage of various syphilitic affections than as independent eruptions. This is especially true of the papular Syphilides, which often become scaly, and assume a Psoriasis-like character, especially on the palms and soles, constituting the so-called Psoriasis Palmaris et Plantaris Syphilitica. A tubercular syphilitic eruption, too, often becomes scaly and Psoriasis-like, and as this is a late manifestation of Syphilis, it follows that the Squamous Syphilides, though usually secondary, are occasionally a tertiary manifestation. In any case the patches of Psoriasis Syphilitica are usually round, or occur in circles or segments of circles, generally of small size and not very numerous; the scales are usually scanty, thin, and greyish, and rest upon a deep brown or coppery surface, which as a rule is dry, but is occasionally here and there the seat of ulcers, which may be covered with crusts.

DIAGNOSIS OF SYPHILITIC FROM NON-SYPHILITIC PSORIASIS.

Syphilitic Psoriasis.	*Non-Syphilitic Psoriasis.*
1. Eruption *not usually* extensive.	1. Eruption sometimes very extensive.
2. Patches usually very small, and in shape of spots (size of a split pea), or of small circles or segments of circles (seldom more than an inch in diameter).	2. Patches often very large and irregular: when circular, circles often several inches in diameter.
3. Elbows and knees usually escape: more on inner than outer aspect of limbs: when limited to soles or palms, most frequently syphilitic.	3. Any part of the surface may be attacked, but almost invariably the elbows or knees or head involved.
4. When chronic, eruption usually of a very distinctly coppery tint, sometimes very dark, even nearly black (Psoriasis Nigricans).	4. Patches of a dusky-red or light brownish colour, as a rule, though may be coppery.
5. Scales scanty, thin, and greyish.	5. Scales thick, imbricated, white, and more silvery.
6. Itching usually absent.	6. Sometimes not itchy, sometimes intolerably so; generally slightly itchy now and then.
7. May last months, or even more than a year, when no treatment employed.	7. Often of many years' duration, or even lasts on and off for a whole lifetime.
8. Relapses rare after *all trace* of the eruption has *completely* disappeared.	8. Relapses the rule, and often very numerous, especially in spring and autumn.
9. Rarely commences before puberty, and usually after the age of twenty.	9. Many cases commence long before puberty.
10. Can often be traced to infection.	10. Is often hereditarily transmitted.
11. Patient often cachectic, and concomitant symptoms detected, *e.g.*, Roseola Syphilitica, Lichen Syphiliticus, Condylomata, Sore-Throat, Alopecia, etc.	11. Patient generally has a very healthy appearance, and no special concomitant symptoms.
12. Removed by anti-syphilitic treatment.	12. Removed by treatment applicable to ordinary Psoriasis, and not benefited by anti-syphilitic treatment.

v. *Vesicular Syphilides.*

When these occur, and they are rare, they appear generally within three or four months of infection. Usually the vesicles are isolated, and some of them may be umbilicated: they are of considerable size, and may resemble those of chicken-pox (hence the term Varicella Syphilitica), but they differ from it in that the eruption may last for weeks owing to successive crops, that they are more certainly situated upon an elevated base, are surrounded by coppery areolæ, terminate in small greenish scales, and leave coppery stains.

More rarely the vesicles are very minute, and closely set together like those of Vesicular Eczema (hence the term Eczema Syphiliticum), but the vesicles do not rupture so readily as those of Eczema, are seated on a coppery base, and the secretion dries up into greenish crusts, which, when they fall, leave behind coppery stains; ulcers, too, are much more commonly met with on the patches.

FŒTAL MEDICATION.—Dr. Curtis Smith terminates a paper upon this subject (*Phil. Med. Reporter*, September 23) with these conclusions:—1. If we may depend upon the results of the experiments of Rhigini and Kubasson, remedial agents given to a pregnant woman will promptly affect the fœtus, and the effects will be proportionate to the dose. 2. The fœtus of a syphilitic mother may have its chances of continued viability greatly increased by proper anti-syphilitic treatment persistently used during pregnancy. 3. Any recognised dyscrasia of the mother that is likely to destroy the fœtus may be often met, and fœtal viability secured to the end of the term of pregnancy, by administering remedies to the mother. 4. In cases of fatty degeneration of the placenta, or other placental disease, the continued viability of the fœtus may be secured by sending to it better blood—*i.e.*, by enriching the mother's blood, or increasing the power of placental respiration, through the use of alkaline salts, iron, etc. 5. The movements of the fœtus may be promptly governed by administering anodynes to the mother in fairly full doses. 6. The internal administration of any powerful therapeutic agent may lead to the death of the fœtus, and hence to abortion or miscarriage.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA,

ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(*Continued from page* 472.)

INTERMITTENT FEVER.

As I have already intimated, I have lived and practised, and shall probably die firm in the belief that Intermittents and Remittents are caused by a specific poison or morbific entity which emanates from certain soils. I have read, with care, goodwill, and respect, all that has been written on this question by my friends Drs. Oldham and Lyons, and others against this view, and I remain fixed in the opinion that heat and chills, and sudden and great variation of temperature, are not the primary and true causes of these fevers, any more than the application of a spark is the true cause of the explosion of a loaded gun—these being alike merely the *exciting* causes; the specific poison already in the system, and the presence of the gunpowder in the cartridge, being the only true and valid causes of the discharge of the gun and the outburst of the fever. I have also read all that has been written regarding the *Bacillus malariæ*, with the greatest interest, and with a wish that my Indian brethren had contributed more to the practical investigation of this most important point. I can perceive that, should the existence of this microphyte, or of one allied to it, be demonstrated in soils and in the bodies of man and animals wherever fevers of this class prevail, and not generally or largely elsewhere, nearly all believers in paludal poison, who may survive when this fact comes to be established, will view it as a great discovery which fits accurately into all the four corners of the malaria doctrine of Maculloch.

I commenced these Notes with a promise that, except for the purposes of argument and illustration, I should endeavour to include in my remarks little or nothing which a young English physician should be expected to know upon commencing practice in India. Such a member of our profession, who has passed all his years in malarious Britain, ought generally to have a rather full practical knowledge of paludal fevers; although, in our great home hospitals, however prevalent the masked and hybrid forms of these diseases may be, the common agues of the Kent and Essex marshes and the Lincolnshire fens seldom find admission. Besides this, in his Croonian Lectures, on the "Climate and Fevers of India,"(a) Sir Joseph Fayrer has recently given to all students a view of Indian malarious fevers so just and so comprehensive as to demand a place among the classics of our literature. Still, the subject now lies before me in the way which I said, more than three years ago, that I would endeavour to follow to the end, and I think that something to the purpose may be recorded by one who practised among these fevers throughout a working lifetime, who has suffered from one of them for thirty-three years, and who is scarcely free from an attack at the moment in which he pens these words.

It has long appeared to me that we ought to possess a work on medicine in which each disease is commented upon by physicians who have been themselves its victims.(b) Acting upon this idea, I shall make my chapter on Indian Intermittent Fever a kind of running commentary upon my own case of the Fever of Chittagong, which disease affords a tolerably fair type of Bengal Intermittents.

I need scarcely premise that everywhere, and in all persons, the types of all fevers present infinite varieties. In the lapse of years, in different zones, in dissimilar climates and soils and races, and individuals of the same race, the type of each disease, may, even the character of each several attack, varies perpetually. In speaking to my students of Indian Paludal Fevers, Cholera, and Dysentery, I used to say that I had never in any two years, or even in any one season, seen the same type of disease precisely repeated; nay, further, that, accurately observed, every man's disease differs from those of his neighbours in the two next beds just as much as do the features and figures of the three individuals. While I watched the Typhus of London for twelve years, the type of every outbreak was different, often most strikingly so, and each individual case had its own particular characteristics. I have always borne in mind the observation of an able London practitioner, Mr. Greenwood, which I heard more than forty years ago. It was to this effect. Somebody having remarked that typhus was always adynamic and could not endure depletion, he said—"True, as regards the Typhus of the present day, I have carefully watched typhus in London for thirty years. During that time, my opinions upon this disease have never changed; but, of necessity, my practice has wholly altered to meet the alteration in the character of the disease. Formerly, typhus needed bleeding and leeching, which were undoubtedly useful; but, for many years past, typhus with us has been an adynamic disease in which no blood-letting can be borne." I have no doubt that if an Essex and a Lancashire practitioner were to change places, each would, if a close observer, find that he had come upon a phase of malarious disease which was new to him. Even in the same individual, the character of each attack is different. Although I have suffered from at least fifty attacks of intermittent, my sensations have, from time to time, varied exceedingly—more than once so much as to lead me into a wrong diagnosis, always to my hurt, and once to my peril. Speaking generally, my full personal experience of Chittagong Fever, there and in England, teaches me that the paroxysm is very far more violent in London and in Cheltenham than it is in Eastern Bengal. The tendency to splenic enlargement, as a result of malarious poisoning, varies greatly in different localities. Another out of a thousand illustrations which might be given of the fact that the types of paludal fevers vary with the locality. Generally (in my time—and an observer can only hope to give a true description of the fevers of his own time) it was extremely rarely that the Paludal Fevers of Bengal produced that blood disintegration which is characterised by a sallow skin. In my chapter on Indian Relapsing Fever, I have mentioned that when many Europeans who had been engaged in putting together an iron bridge in a horrible swamp on the railway between Calcutta and Mutlah came into my wards with Remittent Fever, a single glance at the complexion of a new patient told me that his was a case of Pecalee Fever.

With regard to my own case. The first thirty years of my life, although endowed with much good health, were but little conducive to my bodily welfare in India. Until the age of six, I was at my birthplace, Greenhithe, on the Thames, a chalk hill closely advanced upon on three sides by widespread marshes. Many of my father's patients, among the neighbouring poor, suffered most horribly from facial neuralgia, to which he was also subject. The marsh people were often afflicted with "ague-cake" and many of them were "liver-grown." Swanscombe, a pretty village on a slight elevation, about a mile inland, was then very unhealthy (it has, within the last few years, been the seat of a remarkable outbreak of diphtheria). My father, who had served in men-of-war for some years in the West Indies, said that only there and at Swanscombe had he treated severe dysentery. I must have suffered from dysentery repeatedly at Greenhithe, and there I had long a sensation, under my left false ribs, which must have been caused by the dragging of an enlarged spleen. Thence we removed to Southsea, which, except on its sea-border, had then, on every side, swamps and marshes, which have now to some degree been improved away and built over. Here I, in a few weeks, had an attack of fever—I know not of what type—which imperilled my life; and, some years later, my father had a return of facial neuralgia. I now became subject to a neurosis—spurious croup. The first twelve years of my professional life were spent chiefly in Maze Pond, Pimlico, and Upper Stamford-street, all originally paludal localities. In the latter street my father and I both suffered from severe attacks of acute dysentery. I have given these details as some ground for the hint that *the British soldier ought not, if possible, to be recruited in marshy districts.* It has often been stated that Ireland is nearly free from Intermittents and Remittents, but their congeners, Typhus, True Enteric Fever, and Rheumatism, abound. Talking over this subject lately with my friend, Dr John Macpherson, we agreed that at least many parts of Scotland are free from ague, but he added that the

(a) Commenced at page 403 of vol. i. of 1882.

(b) A judicious editor would probably elicit something curious, if not useful, even from the contributions on imbecility, dotage, and softening of the brain.

"shacks" are not unknown. Until the East India Company ceased to recruit European soldiers, their sole depôt was at Warley Barracks, now a Queen's depôt, and every man was embarked at Tilbury Fort, which lies sunk in the broad marshes of Essex, not far from my native place. In examining a man recently arrived in India, Dr. Macpherson found a huge spleen, and inquired where he had last resided. The reply was, "At Tilbury." I think that this question of localities to be selected for recruiting, which might be largely illustrated, demands practical attention.

Shortly after my arrival at Calcutta, I had an attack of Dysentery, which was easily checked. Several years later, I had two other moderate attacks. Having been stationed at Purulia, Maunbhoom (a dry station and not very malarious), for a few months, I obtained the medical charge of Chittagong, a place which lies within sight of the sea, our houses being built on low sandstone hills, and almost surrounded by alluvial marshy flats of enormous extent, completely inundated during the rains. This place is notorious for its fever. I joined before the setting-in of the rains. A great cyclone had lately devastated the station. The vegetation, which is more rankly luxuriant there than in any spot with which I am acquainted, had been crushed to pieces by the force of the hurricane. Multitudes of large trees had been either uprooted or broken, the numerous tanks and ill-made drains were filled with decomposing vegetable matter. When I arrived nearly the whole of the residents were down with intermittent fever of no great violence. Although we occupied a house which I afterwards discovered was notorious for its unhealthiness, vast marshes, which extended further than the eye could reach, being open to our view, we appeared to remain well for nearly a twelvemonth, during which time, however, paludal cachexia was doubtless establishing itself in our systems. I had started on my round of visits early one morning, and, having seen my dispensary patients, was, on leaving, stopped in the road by a European. As I spoke with him I experienced an annoyance felt by all who take morning exercise in Bengal—the painful heat and glare of the almost horizontal rays of the sun upon the eye and temple most exposed. I therefore moved into the shade of my buggy hood, where I almost immediately felt chilly. Going home as soon as possible, I had my first attack of Chittagong Fever. Neither the cold, the hot, nor the sweating stage was severe, although they were distinctly marked. In all my after attacks of fever, *in India*, for eighteen years, there was no proper cold stage—only a moderate sense of chilliness, with malaise. Those fevers of Bengal with which I am acquainted are generally, both in natives and Europeans, unaccompanied by a very marked cold stage, except in the *first* attack. I never saw very severe ague in that country, although the surgeon of a Queen's regiment at the Calcutta General Hospital—a healthy-looking, wiry, middle-aged man—was said to have nearly died in the cold stage of intermittent. Convulsions sometimes take the place of the cold stage in Bengal, especially in children. Ague is much commoner and infinitely more severe in England than in Bengal. This is also the case with retired Indians. After eighteen years' service in India, I had two paroxysms of ague at Cheltenham of most overpowering and terrible violence, the rigors being almost as severe as those which attend the formation of liver-abscess. In my more recent attacks, I have merely felt very cold, but have not shivered.

Soon after my first attack I began to experience a remarkable phase of Bengal Fever. The homeward mail then only left India once a month, and I found that, whenever I had to write my letters, I was attacked with fever. This form of periodicity has been frequently observed. My friend, Surgeon-General Cockburn, tells me that he was subject to it when he left Calcutta about two years ago, having contracted it while travelling in Bengal on inspection duty. This "*sol-lunar influence*," as it was termed, was much discussed early in the century, especially in the writings of Dr. Balfour. I shall revert to it.

The natives of Chittagong, like those of Bengal generally, suffered from quotidian. In Europeans the prevalent type was tertian. I never saw a case of distinct quotidian in a European adult. In European children the fever usually appears to be continued, but may incline to the quotidian type. I never saw a case of tertian in a native. Nor did I ever see quartan in a person of either race. Out of Bengal Proper, these rules do not hold good. I need not follow the subject in its application to those parts of India in which I have not practised. Every medical officer, upon being posted to an Indian station, only too easily discovers the type of its prevailing fever. Seeing that other Europeans always suffered from tertian, I, finding that I could always cut my attacks short after the first paroxysm by quinine, took it for granted that I was also subject to tertian. This was put to the test, at the end of eighteen years, in Cheltenham. My first paroxysm was of such surprising severity that I did not recognise my ancient enemy, and imagined that I was attacked by some English disease; the fact that I was nearly well on the next day ought to have warned me of my position, but did not. On the third day the fearful shattering rigor and the long and violent hot and sweating stages announced unmistakable tertian. This is the only occasion on which I have failed to cut my disease short by quinine after the first paroxysm. I had no attack of croupy cough in India; but, at the commencement of my second cold season at Chittagong, I began to suffer from another and worse neurosis—malarious asthma—a disease which I must describe presently. This attacked me every cold season during twenty-seven and a half years' Indian service. At Chittagong I frequently went upon my rounds during the hot and sweating stages of fever. It often struck me that I was more ill than the generality of my patients; but this is evidence that the attacks were not severe. During three and a half years' residence at Chittagong my family became thoroughly subject to the fever, which killed our eldest child. We who escaped were pale, emaciated, and cachectic. During many subsequent years in Calcutta and its vicinity, I had less fever, but asthma continued in almost unabated severity; and, in the seventh year of my residence in India, I had a very severe attack of acute hepatitis.

Where the intensity of the malarious poison is great, both Intermittent and Remittent Fevers are liable to have their (1) cold, (2) hot, and (3) sweating stages respectively most severely complicated by *Pernicious Conditions*—(1) Eclamptic, (2) Ardent, simulating Insolation, (3) "Algide or Diaphoretic," with Collapse.

As I have mentioned above, convulsion—rigor being a degree of convulsion—sometimes takes the place of common rigor in the Intermittent of Bengal. This is the form of pernicious complication designated by Hertz as the *Febris Intermittens Eclamptica* or *Epileptica*, occurring mostly among children and puerperal women.(c)

This formidable complication occurred in malarious England in old times. Under the date of March 5, 1632, Sir Simonds D'Ewes writes in his Autobiography:—"I was suddenly sent for by my wife in the afternoon, who had been much affrighted by our little daughter Anne's twice sounding" [swooning] "away, which, it seems, were fits of convulsion. Before I got home in my coach she was pretty well, but had, after this, so long an ague, being not yet two years old, as we much feared we should have lost her." Convulsion and epilepsy were very prevalent in this family. Upon my sad Indian experience of this form of disease I wrote my "Enquiry into the Circumstances of the Death of King Charles the Second of England,"(d) the King, as I believe, having died of Intermittent Fever with Convulsion assuming a periodic character. Dr. Morehead has given(e) the case of a man at Bombay who had been admitted with Remittent Fever of about a week's duration, and who had suffered from previous attacks of fever during four months' residence in Bombay. At midnight of his second day in hospital, he had a convulsive fit passing into coma. There was another fit in an hour. At 2 a.m. there was perfect coma with convulsive movements of the limbs. He expired eleven hours later.

Dr. John Jackson, now residing at Brighton, told me that he had met with this disease in Bengal, occasionally in adults, especially in an apparently healthy young man, in whom it proved fatal in three or four days. It is clear that certain of the cases of "Fever with Epilepsy," described by Dr. Geddes in his "Clinical Illustrations of the Diseases of India," page 259, were of this description. I never saw malarious convulsions in an adult. Dr. Arthur Payne has met with a good deal of this disease in grown up persons; and, partly at my request, published a very important memoir upon it in the number of the *Indian Annals* which contains my "Enquiry." I saw seven or eight cases of malarious fever,

(c) Ziemssen, vol. ii, page 668.

(d) *Ind. Annals of Med. Science*, No. 14, 1861. (e) *Op. citat.*, page 82.

ushered in by convulsions, in children between three and ten years of age, in Bengal. Three proved rapidly fatal; one of these latter, my own first-born, an apparently healthy girl in her fourth year, who had not previously suffered from fever, was, at Chittagong, seized with convulsion, without any premonitory symptom, while playing with her toys. Strong fever ensued. About twenty-three hours from the commencement of the attack there was again convulsion, in which she died.

Dr. Sullivan says that, in Havana, convulsions are frequent in children suffering from fever, and are perhaps, next to black vomit, the most dangerous symptom. He notices that, when they make their appearance *at the close* of an attack of fever, there is always danger to life. In all my cases, convulsion *commenced* the paroxysm.

(To be continued.)

TWO HUNDRED AND FIFTY YEARS OF SMALL-POX IN LONDON.

By WILLIAM A. GUY, M.B. Cantab., F.R.C.P., F.R.S.,
One of the Honorary Presidents of the Statistical Society.[a]

(Concluded from page 485.)

I NOW extend this comparison from small-pox and measles to small-pox and the other epidemic maladies brought into comparison with it in the pages of the Registrar-General, with what results will be seen in Table XIV. (See next page.)

The results of this table are very remarkable, and may be thus briefly summarised:—

1. The highest figure for small-pox is 89 per 100,000 persons living, the lowest 1 for the same living population; so that the decrease from the highest to the lowest is equal to $\frac{1}{89}$ of the greatest number of deaths.

2. The highest figure for measles is 95, and the lowest 12; showing a fall of one-eighth, or an eleventh part of the fall in the case of small-pox.

3. The highest figure for scarlet fever and diphtheria is 212, and the lowest 28; being a like fall of less than one-eighth, or, again, an eleventh part of the fall in the case of small-pox.

4. The highest figure for whooping-cough is 120, the lowest 51; being a fall of less than a half, or less than a forty-fourth of the fall of small-pox.

5. In the case of fever the highest figure is 164, the lowest 24; being a fall to one-seventh, or a fifteenth of the fall in the case of small-pox.

6. For diarrhœa the highest figure is 151, and the lowest 26; being a fall to a sixth, or a fifteenth of the fall in the case of small-pox.

That I may not omit from the table a disease included in the columns of the Registrar-General, I give the figures for cholera, though, as a special exotic epidemic, it cannot be admitted to a comparison with the rest.

Taking, then, one epidemic malady with another, it appears that the mortality by small-pox stands alone in the amount of reduction it has undergone during this century, the other epidemic maladies showing an abatement ranging from one-eleventh, twelfth, or fifteenth, to one forty-fourth of that higher amount. If we may assume that all these epidemic maladies shared with small-pox the benefits conferred by the several sanitary reforms that have signalised the last half of this century, there still remains to be accounted for the remarkable difference between these figures. Vaccination is the concurrent force brought to bear on small-pox: can we find any other to account for the difference? I think so. I can imagine no other.

But the remarkable epidemic of small-pox which occurred in 1871 may be brought forward as an argument in favour of a desponding view of the preventive efficacy of vaccination, assuming vaccination to have been the cause of all the abatement that small-pox has not shared with other maladies. Let us, then, examine this remarkable outbreak by the light thrown upon it by its surroundings.

In the first place, it should be observed that this outbreak stands alone in its abruptness, no less than in the long interval which separates it from any attack of like severity. We must go back to the year 1805—a space of fifty-eight years(b)—to find such another. The longest interval between epidemic and epidemic in the previous centuries was eight years or nine. Let us take the two outbreaks, with the facts of the years that preceded and followed them, and note the differences, if any, between them. I present the figures in ratios to 1000 deaths, and in round numbers.

TABLE XV.—*The Two Epidemics of the Nineteenth Century compared.*

							1805.							
1800 ...	...	104,	75,	82,	61,	37,	**96**,	65,	71,	59,	70,	60	...	... 1810
							1871.							
1866 ..	...	17,	19,	8,	4,	13,	**98**,	25,	1,	1,	1,	9	...	... 1876

Before commenting on this curious contrast, I will deal in the same manner with the four great epidemics of the eighteenth century, which claimed as their victims upwards of 150 deaths by small-pox in 1000 deaths by all causes.

TABLE XVI.

							1752.							
1747 ...	54,	75,	103,	53,	47,	**173**,	40,	104,	91,	77,	155	...	1757	
							1755.							
1752 .	173,	40,	124,	91,	77,	**155**,	72,	132,	110,	72,	104	...	1762	
							1781.							
1776 ...	91,	110,	70,	122,	42,	**169**,	35,	81,	99,	106,	59	...	1786	
							1796.							
1791 ...	93,	78,	110,	59,	49,	**184**,	34,	129,	64,	104,	75	...	1801	

The following table will assist us in our comparison:—

TABLE XVII.

Total of deaths in five years preceding.					Total of deaths in five years following.		
352	...	...	173 (1752)	...	...	467	
485	...	...	155 (1755)	...	...	490	
435	...	...	169 (1781)	...	...	380	
429	...	...	184 (1796)	...	...	400	
359	...	...	96 (1805)	...	...	325	
61	...	...	98 (1871)	...	...	37	

The figures in these three tables do but confirm each other. They agree in enforcing the same lesson. The most severe epidemics of the last century were preceded and followed by one year of a comparatively low mortality, these being in their turn preceded and followed by high figures in which one or two epidemics found place. The first epidemic of the present century, which could not have been greatly influenced by vaccination, presented somewhat similar figures; but the second epidemic exhibited the most striking contrasts. For the years directly preceding and following not only display comparatively low figures, but some of the lowest figures to which the deaths from small-pox have ever fallen are to be found in the groups of four years which preceded and followed these. Nor are any of the figures which the tables present more remarkable than those of the three years 1873, 1874, and 1875. Expressed in round numbers they are all represented by the figure 1; but the exact figures are 1·49, 0·74, and 0·56. To these low levels did the deaths by small-pox fall after the epidemic of 1871. So that, if I may so express myself, the storm of that year, overleaping all barriers, was speedily followed by a calm as strange as the tempest itself. That atmospheric condition, whatever it may be, to which our epidemics are due, was so favourable to attacks of small-pox that the barrier of vaccination, though effective in ordinary years, proved insufficient in this; the more and the less susceptible were alike seized, and the population swept clear for a time of almost all possible victims. Then vaccination, a protective in ordinary seasons, resumed its sway, and almost brought about the cessation of small-pox. I can imagine no better explanation than this; but whatever the efficacy of vaccination, certain it is that this nineteenth century, in which it has been increasingly at work, and the last forty years, in which it has worked side by side with several sanitary reforms and improvements, have witnessed numerical phenomena which no sanitary reform can explain, and which vaccination alone appears competent to account for.

I shall now endeavour to present in a series of short propositions the conclusions which the figures of this paper appear to justify.

1. That our records of deaths by small-pox in the metropolis reach back, with slight interruptions, two hundred and fifty years, together with similar returns of deaths by measles, and by all causes.

(a) Read before the Statistical Society, June 20, 1882.

(b) That is to say, fifty-eight years of registered deaths, as given in the tables of the Appendix.

2. That if we use the deaths by all causes, year by year, as a standard of comparison by which to measure the deaths by small-pox, and by other special maladies, we obtain ratios from which we can draw instructive inferences important in their bearing on such questions of practical importance as inoculation and vaccination.

3. That if we assume, in the case of small-pox, 100 deaths in 1000 from all causes to be an epidemic, and so name it, we find such epidemics to have been of frequent occurrence in the seventeenth and eighteenth centuries, but absent in the nineteenth; and if we adopt a lower figure as the sign of an epidemic, we have more epidemics in the two earlier centuries than in the present century.

4. That the eighteenth century far surpasses both the seventeenth and the nineteenth in the number, frequency, and magnitude of its epidemics; that it contributes more largely than they do to the sum of the deaths from all causes; and that it stands alone in presenting to us epidemics of more than one year's continuance.

5. That measles, on the contrary, if we take the ratio of 20 deaths per 1000 as the standard of an epidemic, shows a progressive and very considerable increase from the seventeenth to the eighteenth, and from the eighteenth to the nineteenth century.

6. That whooping-cough also, taking 25 deaths per 1000 as the epidemic standard, shows an increased ratio of deaths in the nineteenth as compared with the eighteenth century.

7. That though the eighteenth century, and especially the last part of it, was remarkable for the number, frequency, and severity of its epidemics, and though it is probable that inoculation contributed to produce that result, it did nevertheless effect some saving of life by greatly mitigating the disease in most of those on whom it was brought to bear, thus somewhat more than counteracting the mischief it did by spreading the disease among those to whom it was not applied. (c)

8. That a certain presumption in favour of vaccination as a preventive of small-pox is afforded by the entire absence in the present century of epidemics of small-pox, when 10 per cent. of the deaths from all causes is taken as the measure of an epidemic.

9. That this presumption is strengthened by the fact that small-pox, up to the very close of the eighteenth century, had undergone no considerable abatement; also by the fact that the lowest returns of deaths by small-pox are to be found in the nineteenth century, as well as the longest interval between the only two epidemics which approach the standard of 10 per cent.

10. That the fall from the highest to the lowest ratio of deaths by small-pox in the nineteenth century is greatly in excess of the fall from the highest to the lowest figure of the deaths by small-pox in the eighteenth century.

11. That when we compare the eighteenth with the nineteenth century in the case of measles and whooping-cough, we discover an opposite condition of things—an increase of numbers instead of a decrease.

12. That there was a progressive lowering of the mortality from small-pox in the early part of the nineteenth century, prior to the introduction of sanitary reforms and improvements.

13. That this progressive decrease of mortality from small-pox continued during the later years of this century after the introduction of these sanitary reforms and improvements.

14. That when we substitute the ratio of deaths by small-pox to the number of persons living for the ratio of deaths to deaths, we change the figures without altering the results.

15. That when we make use of this ratio of deaths to the living, we find the deaths by small-pox in 100,000 living persons to fall from a maximum of 89 to a minimum of 1, a decrease quite unexampled in the case of other epidemics.

16. That the epidemics measles, scarlet fever, diphtheria, whooping-cough, fever, and diarrhœa all undergo a decrease in the last forty years of this century, but that the decrease is only a small fraction of that which occurred in the case of small-pox, their highest figure of decrease not amounting to a tenth part of the decrease in the case of small-pox.

17. That if we assume, as we seem justified in doing, that an equal improvement was wrought by sanitary improvements in all epidemic maladies, small-pox included, we must needs attribute the remarkable excess of improvement in small-pox to some cause or causes other than sanitary reforms, and that there is only one cause to which it is reasonable to attribute this excess, namely, vaccination.

18. That there is nothing in the numerical surroundings of the great epidemic of the year 1871 (less severe, be it well understood, than the epidemics of the past centuries) which ought to shake our confidence in the preventive efficacy of vaccination, for the years which preceded, and still more those that followed it, show by the smallness of the figures to what a low degree of mortality some cause or causes could reduce the once formidable epidemic, small-pox.

19. That, taking a careful and comprehensive view of all the facts that bear upon this question, it seems allowable to conjecture that while vaccination does not act as a sufficient protection in epidemic years, it does effectually guard against attacks of small-pox in all other years, and that where it does not protect it mitigates.

The series of tables referred to in the body of this paper will be published, with the paper itself, in the columns of the *Statistical Journal*, with the final corrections of the author, together with a table showing the deaths by small-pox and by all causes, with the calculated ratios, for the forty years ending 1880. The author's corrections and additions will not affect any of the conclusions to which the figures in the many tables woven in with the text have led him.

TABLE XIV.—*Ratio of Small-pox and of other Diseases to One Hundred Thousand Persons Living.*

Years ending	Small-pox.			Measles.			Scarlet fever and diphtheria.			Whooping-cough.			Fever.			Diarrhœa.			Cholera.		
	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.	Maxima.	Minima.	Average.
1845	89	19	46	74	12	72	149	35	79	121	64	91	167	61	75	43	26	36	6	1	3
1850	72	12	34	81	35	51	212	44	93	103	67	82	164	87	120	151	83	102	618	5	133
1855	48	9	34	56	25	42	139	54	86	168	65	92	112	90	101	126	80	102	429	6	87
1860	42	6	21	88	49	64	156	61	106	101	64	83	105	53	76	121	50	90	8	2	5
1865	69	8	26	95	38	62	199	87	134	126	74	91	128	66	105	121	60	72	7	4	5
1870	46	9	19	73	37	52	197	61	127	119	61	85	88	63	75	128	86	109	184	7	43
1875	54	1	60	64	40	49	133	28	71	98	54	78	52	35	43	118	91	104	7	3	4
1880	71	12	31	67	40	52	96	53	75	123	51	84	38	24	31	99	50	81	4	1	2
1881	62			68			36			51			31			80			2		
Max. and min.,	89—1			95—12			212—28			126—51			164—24			151—26			618—1		
Ratio of max. to minima ...	89 fold			8 fold			7 fold			2 fold			7 fold			6 fold			618 fold		
				$\frac{1}{11}$th small-pox			$\frac{1}{13}$th small-pox			$\frac{1}{1}$th small-pox			$\frac{1}{7}$th small-pox			$\frac{1}{6}$th small-pox					

FRENCH HOSPITAL AND DISPENSARY.—Mr. H. de Méric has resigned his appointment as Surgeon to this institution.

THE MEDICAL SOCIETY OF LONDON.—We are requested to state that, in consequence of extensive building alterations, the library of this Society is not available. The reading-room is open from one to six o'clock p.m., and the journals can always be seen.

(c) Any discrepancies which may seem to exist in the foregoing statement (No. 7) are reconciled when we take into account the fact that the lowest figures fell while the highest rose.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

ACUTE HIP-DISEASE—PNEUMONIA—ENTERITIS—DEATH IN EIGHT DAYS—AUTOPSY.

(Under the care of Mr. CÆSAR.)

[For these notes we are indebted to Mr SCOTT BATTAMS, Resident Medical Officer.]

W. B., aged seven, was admitted on August 9, 1882. He began to be ill about August 3 or 4; he lost his appetite, and complained of pain in the belly, which became swollen—it was so painful that he could not even bear poultices over it. His nose bled, and he had earache also. On the 6th and 7th he vomited and complained of thirst. On the 9th he was taken in.

On admission, he was found to have great pain and tenderness over the right hip, and he cried out when any movement was attempted. He looked ill. His temperature was 102° Fahr. The case was regarded as one of acute hip-disease; a weight and extension were ordered.

August 10.—He looked very ill—more so than his hip disease would account for,—and an idea of pyæmia was entertained. There were no objective signs, however. Temperature 99·8° Fahr.

11th.—He became much worse; his face was drawn and pale, his breathing was moaning, and his alæ nasi dilated widely. Temperature 103·6° Fahr. He was too ill to be thoroughly examined, but dulness was found in the upper half of the right chest. His abdomen was distended, but not tense; it moved freely with respiration; nothing could be made out by palpation. He passed two offensive pale yellow motions. At 2 p.m. his temperature was 103·2° Fahr.; pulse very thready. He appeared but half-conscious, and at 6 p.m. he died.

The autopsy was made next day. The head was not opened. Chest: There were six ounces of clear fluid in the left pleural cavity; there was no lymph or loss of polish of the pleura; lung more or less normal. In the right pleural sac there were four ounces of bloody fluid; the costal pleura was much injected in the upper part, and the lung was adherent; the lung was solid in its upper lobe, and the lung tissue broke down easily; it appeared as if the softening were taking place around an infarct. The rest of the lung was crepitant, and full of a thin frothy fluid. Heart: There were about three ounces of clear fluid in the pericardium; there was no lymph on the pericardium. The valves of the heart were normal; the cavities contained a quantity of partially decolourised clot. Abdomen: Liver and spleen normal. The abdominal cavity contained about a pint of clear amber-coloured fluid; the intestines had not lost their polish, and there was no lymph upon them anywhere; they were much distended, and in places deeply injected. On opening them there was deep injection in the duodenum, and patches of ecchymosis throughout the small intestines. Peyer's glands were prominent, and seemed softened. The mesenteric glands were hyperæmic. Kidneys were deeply congested. Right Hip-joint: There was no marked evidence of inflammation about the capsule of the joint or in the soft tissues around, but on cutting into the capsule about one drachm of thick creamy pus came out. The cartilage over the head of the bone and acetabulum was quite shiny and smooth, and appeared normal.

Remarks.—The notes of the above case, though very defective, are, nevertheless, sufficiently curious to be worthy of publication. The presence of pneumonia; of serous fluid in both pleuræ, in the pericardium, and in the abdomen, together with pus in the hip-joint, amply testify to the universality of the disease—whatever it was—which killed the patient. Its duration was not more than eight days. The upper lobe of the right lung appeared to be most advanced, and an infarct was thought to be the starting-point, from the fact that there was a central patch which appeared firmer than the surrounding breaking-down lung tissue. But it is quite impossible to say what gave rise to the infarct. The condition of the intestines was also puzzling. There was enteritis, but yet nothing characteristic of either tubercular disease or of typhoid fever. In point of time, the intestinal trouble was the first to become manifest by symptoms (viz., pain and swelling), but even these were not of more than eight days' duration. The presence of pus in the hip-joint was a surprise, because until the joint was actually opened there was nothing in the surrounding soft tissues to lead one to suspect its presence. Its amount and thickness, considered in relation to the reputed duration of the disease, are important. It would be interesting to know whether this pus in the joint was the cause of the acuteness of the symptoms; for, if so, there would be a distinct indication for treatment in any similar future case. That the child, with pneumonia of one apex, enteritis, and hip disease, should have died is not extraordinary; but the rapidity with which the acute symptoms manifested themselves, not less than the total duration of the child's illness as gathered from the mother, are certainly rather unusual. No one of the lesions seemed severe enough in itself to account for death. There was, however, something in the child's appearance which suggested pyæmia or some other serious general disease, though it would have been difficult to describe. As to causation, nothing clear could be made out from the history, and the autopsy failed to give any plausible explanation.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, OCTOBER 28, 1882.

THE SAFEGUARDS OF THE INSANE.

THE publication of the Thirty-sixth Report of the Commissioners in Lunacy gives a fitting opportunity for bringing prominently into notice the nature and amount of the work done by these useful public servants, and for insisting on the elaborateness, thoroughness, and efficiency of the safeguards that have been devised by the State for the protection of the most helpless of its wards. The position, as a rule, of lunatic asylums, situated, as for the most part they are, in the recesses of some country district far from towns and railways, of itself places a gulf between them and the public, and this gulf is widened by the almost superstitious horror with which they are regarded by too many people; by the unwillingness, which we venture to think unwise, of many

superintendents to admit lay strangers into their wards; and by the fact that asylums are administered, not by popularly elected bodies, to whom publicity is the breath of life, but by virtually irresponsible boards of magistrates. From all these causes it has resulted, not unnaturally, that the attitude of the public mind towards lunatic asylums is one of suspicion, and that any absurd, trumped-up, or exaggerated charge of wrongful detention, ill-treatment, or neglect is listened to with a credulous ear. Hence there is the more necessity for reminding our readers, though to many of them the facts will be familiar, of the careful and constant supervision which is exercised over these institutions. It is sufficiently well known that no lunatic can be admitted to an asylum except, if he be a pauper, on the order of a magistrate and the certificate of a medical man; and if he is to be a private patient, on the order of his next friend and the certificates of two medical men. Copies of these orders and certificates must be transmitted to the Commissioners in Lunacy within seven days after the patient's admission, and a further statement of his mental and bodily condition by the superintendent of the asylum must be sent within the same period, under a penalty of £20. But it is not sufficiently well known that the Commissioners exercise a rigorous supervision over these certificates; that if they are in any way defective they are sent back to the certifier for revision, and if they are not revised to the satisfaction of the Commissioners the latter may order the discharge of the patient; and, on adequate occasion arising, they have exercised this power. The exacting nature of the Commissioners' requirements may be judged of by the great frequency with which certificates are returned for revision, and by the fact that so small an omission as the use of the common abbreviation M.D., or M.R.C.S., instead of the full title of the qualification, is held to be sufficient reason for the return of the certificate as irregular. Moreover, the Commissioners requested the superintendents, by circular, a year ago, to expand their statement of the condition of the patient on admission—which, it will be remembered, is transmitted to headquarters, along with the order and certificates of admission—into a form in which it becomes virtually a third and still more elaborate certificate. Hence it will appear that the safeguards attending the admission of patients into lunatic asylums are sufficiently numerous and rigorous to remove, if their existence is made sufficiently public, all apprehension as to the incarceration of sane people. The supervision of the Commissioners does not cease with the admission of the patient. On the contrary, throughout the term of his residence he is watched by them with a vigilance that no ingenuity can elude. If he is locked into a single room during an outburst of violence, if his hands are fastened in strong gloves to prevent him from injuring himself, or if he is restrained in any other way whatever, the fact, together with the reasons for it, and the number of hours that it was practised, must be recorded in a book, which is inspected by the Commissioners on their visits, and the tenour of which is published in their reports. So, if the patient receives any injury, either by accident or by the violence of others, the facts must be similarly placed on record. If even he be placed under medical treatment, the same rule applies. If an attendant strikes a patient, the former is instantly dismissed, and may be prosecuted by the visiting justices. Should the justices decline to prosecute, the Commissioners may step in and direct the prosecution, and this they have done on several occasions. If the patient is discharged or removed to another asylum, notice is, of course, sent to the Commissioners. Should he die, information of his death and of the supposed cause must be sent, among others, to the Commissioners in Lunacy and to the coroner. The coroner may, of course, hold an inquest if he please, but should he not do so, or should the verdict of his inquest not be satisfactory to the Commissioners, they have power to hold an independent inquiry upon oath into the matter, and they have on several occasions brought home responsibility and blame to persons who had been exonerated by the coroner's inquest. They have like powers of investigation in cases of injury which have not resulted in death, and in other matters—powers which, coupled with their ability to prosecute whomsoever they think fit, must be considered plenary. These functions of the Commissioners in Lunacy are, of course, independent of their duties of periodical inspection of asylums, of which we have already given some idea, and I may presently have more to say; and when taken together, their whole system of supervision must be pronounced singularly complete, and it is known by those who are best acquainted with its working to be efficient and effectual. We cannot but think, however, that, having regard to the secresy, and we might almost say to the mystery, which, as we have seen, from unavoidable causes envelopes the proceedings in lunatic asylums, that it would be more satisfactory to the public, and much more satisfactory to the superintendents and officials of asylums, if a coroner's inquest were to be held as a matter of routine upon every death that occurs among their inmates.

SPECIALISM *v.* GENERALISM.

The subject indicated in the heading of these remarks is one which in some form or other is continually cropping up in that part of medical journals which is allotted to correspondents. The attack is usually upon the specialist—that is, it is commonly the generalist who thinks that he has a cause for complaint against the specialist; not the specialist who regards himself as injured by the generalist: a fact which, so far as it goes, seems to imply that the specialist has at least in some respects the advantage over the generalist. In considering the subject in its general bearings, it is most necessary to clearly separate specialists from specialism. Whatever be the iniquities that may be laid to the charge of individual specialists, or the institutions with which they are connected, it does not follow that these faults solely spring out of the fact that the culpable persons practise a speciality. In the remarks which follow we shall speak of specialism, not of specialists; and of that aspect of the subject which appears in the letter of "A 'Scottish Widows'" Policy-holder," published in the number of this journal for October 7.

That letter combated an opinion expressed by our Edinburgh correspondent, that a certain vacant appointment ought to be given to a physician, and not to a general practitioner. "A 'Scottish Widows'" Policy-holder" thinks that those who at the commencement of their professional career elect to practise purely as physicians, are persons who consult their ambition rather than their duty; that to reward them is to offer a premium on vanity; that to speak of a "young consultant" is an antithesis as perfect as it is ludicrous; and that, in short, the consultant should not begin as such, but develope from the general practitioner. We respectfully think that "A 'Scottish Widows'" Policy-holder" is one of those who mistake experience for knowledge. These two things are not the same. Experience—we use the term, of course, in a colloquial sense, meaning individual experience only—without knowledge is of as little use in our profession as knowledge without experience. To make a great physician, it may with truth be said, three things are required—knowledge, experience, and a faculty of sound judgment. We will put the last out of the way first, because we can say little more about it than that, in Dogberry's language, it "comes by nature." It

cannot be imparted. There are some men who, to use the term applied by the late Dr. Latham, suffer from "general wrongheadedness." Such men can never become either great physicians or sound general practitioners; but it is not their fault, and their failing cannot be remedied. In drawing a comparison between the physician and the general practitioner—that is, between the specialist and the generalist—we say nothing about this indispensable qualification, viz., of not being wrongheaded, for it is essential for each. The differences between the consultant and the general practitioner are these. That the consultant's education is longer. He generally passes more severe examinations, and spends a longer time in hospital study. When he starts in practice, he charges higher fees, sees fewer patients, and therefore for a long time—sometimes a very long time—has abundant leisure in which to make himself master of what is known of the branch of medical science to which he devotes himself. His practice is restricted still further by his limiting himself to one department of medical science. His experience thus at first entirely, and for years mostly, consists of hospital cases. The peculiarities of this practice are that, owing to the aggregation of the patients in one building, the time which would otherwise be spent in journeying from one patient to another is saved, and a great deal can be seen very quickly. Also, that the assistance given by house-surgeons, students, and trained nurses enables the young consultant not only to observe more accurately and completely than is possible in private practice, but to get observations made and recorded for him by others, and thus to gain experience, as it were, by deputy. Further, that the hospital organisation provides for a great many things essential for the treatment of the sick, as to which, had the patient to be treated at home, much time would have to be spent in explaining and enforcing. The consultant thus gets from his hospital immense experience of disease, but comparatively little of patients. It is matter of common notoriety that consultants, excellent in the diagnosis of complicated cases, in deciding as to the principles of treatment, or in the performance of difficult operations, yet are often comparatively unskilful in their management of trifles, unimportant so far as the cure of the disease is concerned, but most important in their bearing on the physical comfort or mental satisfaction of the patient. The consultant's training, in short, gives him greater knowledge of disease in general, and especially of one class of disease, but, for a long time at least, little experience of patients.

The general practitioner, on the other hand, usually enters upon practice early. He sees a greater number of patients (charging comparatively low fees, it is necessary for him to do so) suffering from diseases of all kinds. Seeing the sufferers at their own homes, he has to instruct them as to everything, and see that everything is done. He starts usually with less knowledge than the consultant. When he has started in practice the numbers which he has to see leave him less leisure in which to extend his knowledge. His experience, though great of disease in general, yet must be small of any one class of disease. He can, and usually does, attain a great knowledge of practical details; but the conditions under which his work is done are not favourable to the scientific study of any special class of morbid changes.

The kind of work which circumstances allot to the consultant and the general practitioner, respectively, is quite different. The best type of general practitioner is one who possesses some general knowledge of every department of medicine and surgery—not one who has concentrated his attention on one only. The work of general practice, properly carried on (that is, practised as a profession, and not as a trade), is not in any way inferior to that of the specialist. It is as important, it is as interesting, as dignified, and, if we take into consideration the comparatively early period at which the general practitioner may reasonably expect to earn an income sufficient for his needs, as lucrative. But to do his daily work well, and to keep himself fairly abreast of the progress of medical science in all branches, will take all his time, and leave him very little leisure to cultivate a special department. To become a good specialist requires, first, a broad basis of general knowledge, and then opportunity to see a great number of cases of one particular class, and leisure to study them in the light of the researches of others at home and abroad; and these requirements cannot be had in general practice. Merely seeing a great number of patients is not enough to make a man a good specialist. He must have knowledge before he can properly utilise experience; and the profit he will derive from experience will depend upon the amount of knowledge which he has. For these reasons we differ from our correspondent in his estimate of young consultants. We have spoken of specialists; but, of course, every consultant is a specialist, more or less wide. We do not think that the way to attain a more than ordinary skill in the treatment of disease is to go into general practice early, and remain in it until years bring a social position and reputation which will make the public—who commonly take experience for knowledge—think one's opinion valuable. The public will not pay a man for getting knowledge, but only for applying it to themselves; and therefore the years which the young consultant spends in getting it are unremunerative. There may be some who overrate their powers, and try to enter a line of practice which they are not fit for. But, as a rule, we think that young men of ability, who are content, in order that they may have leisure to acquire more than ordinary knowledge, to postpone money-making, deserve every encouragement. It is without doubt a most useful thing for one who intends to enter consulting practice to see something first of general practice; but this is for its own sake simply. To many it will doubtless seem that we have been repeating platitudes: and the more generally we could think that opinion prevailed, the better we should be pleased. But we have thought these remarks worth making, because we are sure that the public, and some among the profession, do take experience for knowledge, and think that years of extensive practice necessarily imply superior skill. We should be sorry to say anything which could tend to diminish the respect and consideration in which the senior general practitioner is rightly held. But for the progress of medical science we think it essential that it should be recognised that the fittest man for consulting practice is the one who starts with the best education, medical and general, and whose best years—the years of youthful energy and enthusiasm—have been devoted to accurate, thorough, scientific work; and such work must be done irrespective of immediate pecuniary reward. Not he who has seen the most is the best consultant, but he who has learned the most.

THE WEEK

TOPICS OF THE DAY.

With a view of obtaining, if possible, stronger evidence as to the pollution of the river Thames by the sewage outfalls at Barking and Crossness, the Thames Conservancy have organised, under the superintendence of an engineer, a series of experiments of a somewhat novel description. A number of floats or wooden piles have been prepared, and these are placed in the river at the sewage outfalls at different states of the tide; the piles are painted red, and each one launched is accompanied by a boat bearing a red flag. The Conservancy have issued a notice which has been freely circulated at the

waterside, warning masters of vessels, pilots, and others to respect these floats and the attendant boats, as they are connected with experiments being carried on by the Corporation of London. The duty of the men in the accompanying boat is to carefully note how soon the float over which they have to watch is carried out to sea. It is stated—with what correctness we are not in a position to assert—that although a period of three weeks has elapsed since the experiments began, up to the present time no float has ever been carried very far below Gravesend, while some have been taken by the incoming tides as far up the river as Putney. If, therefore, the progress of the floats is any test of the course taken by the sewage on its discharge into the river, it follows that that portion of it at least which does not at once settle down to the bottom of the stream comes back to pollute the West-end reaches of the Thames with each succeeding tide. The official publication of the result of the experiments will be looked for with much interest, since, to some extent at any rate, it will show whether the avowed object of the main drainage works when they were first undertaken, namely, the purification of the river in and near London, has been at all satisfactorily secured, or the contrary.

Considering that it would probably interest the public to be made acquainted with the progress which has, up to the present time, been achieved in providing suitable wheeled transport throughout the metropolis for persons suffering from non-infectious illness and from injury, the Honorary Secretary of the London Ambulance Service has recently furnished the following information:—Through the ready co-operation of Sir Edmund Henderson, the police-stations have been selected as the first fixed points for these vehicles, and one all complete and ready for service has been placed at the Carter-street Police-station; a second will probably be attached to the Bow-street Police-station in the course of the present month; and a third will shortly be available at the Hammersmith Police-station. The vehicles can be secured entirely free of charge for needy cases, but in others a small charge will be made for the services of man and horse. It is pointed out that larger public support is necessary for the development of the scheme, and its increased usefulness must greatly depend upon the amount of subscriptions derived from the charitable public.

The prevalence of cholera in the Eastern Archipelago gives a certain amount of weight to the views which M. Proust, who was the delegate of the Paris Academy of Medicine at the recent Health Congress at Geneva, has, since his return to France, expressed to the Academy. M. Proust believes there are grounds, if not for alarm, yet for the observance of strict precautions, in view of the possibility of the importation of cholera into Europe from the East. In 1832, and again in 1847, the disease travelled in a westerly direction across Afghanistan, Persia, Syria, and the valley of the Danube; but it is to the alternative and shorter route up the Red Sea and through the Suez Canal into the Mediterranean that M. Proust directs more pressing attention. There cannot be two opinions as to the necessity of exercising a watchful supervision over all vessels passing through the Canal, coming from infected districts; but it has to be remembered that the first fears formulated by French sanitarians had reference to the importation of cholera by the contingent of troops summoned from India to take part in the operations about to be undertaken by this country in Egypt. The danger from that source happily proved to be imaginary, and we cannot admit that, up to the present time, the spread of cholera in the East has been sufficient to necessitate the institution of quarantine measures for vessels using the Canal, although such measures are strongly advocated by M. Proust and his *confrères*.

The ways of coroners are sometimes past comprehension. In cases of sudden or very speedy death, when the surrounding circumstances are not entirely satisfactory, the very object of an inquest is to set at rest, as far as possible, all doubts as to the cause of death. The expense involved by a post-mortem examination ought not under such conditions to be considered. At a recent inquest held at Kennington by Mr. W. Carter on the body of a girl aged seventeen, it was deposed in evidence that the deceased, apparently in thoroughly good health, left home in the morning to go to her employment in the City as an embroiderer. In the afternoon she was brought home very ill with vomiting and purging. The next day she appeared better, but as the evening approached she became dull and sleepy, and lost all power of speech. A doctor was summoned, and prescribed for her, but she died the same night. The mother said that she was satisfied there was nothing wrong with her daughter. Mr. Sandford Arnott, surgeon, said he visited the deceased, and found her in a state of collapse. The appearance of her eyes, and other symptoms, suggested poisoning, but the symptoms were certainly not very marked. She was unable to give him any history of her case, and died shortly after he left. Her condition might be accounted for, and the collapse produced, by severe diarrhœa, excessive retching and vomiting, but without a post-mortem examination he could not say positively. The Coroner remarked that he only exercised his prerogative when any suspicious circumstances came to his knowledge, and in this case none had reached him. He supposed Mr. Arnott would admit that it was quite possible that death had arisen from natural causes. Mr. Arnott said he certainly could not subscribe to that verdict. The jury, however, agreed that no post-mortem examination was necessary, and returned a verdict of "Death from natural causes."

During September last, according to the monthly return of the Registrar-General for Scotland, there were registered in the eight principal towns of North Britain the births of 3318 children and the deaths of 2030 persons. The latter number is 97 under the average for September during the last ten years, allowance being made for increase of population. The mortality during the month was at the annual rate of 14 deaths per 1000 persons in Aberdeen; 17 in Edinburgh, Greenock, and in Leith; 20 in Dundee; 23 in Glasgow and in Paisley; and 25 in Perth. The miasmatic order of the zymotic class of diseases proved fatal to 431 persons, and constituted 21·2 per cent. of the whole mortality; this rate was, however, considerably exceeded in Leith and Perth. Diarrhœa was the most fatal epidemic, having caused 132 deaths, or 6·5 per cent. of the whole. Fever caused 42 deaths, of which 9 were tabulated as typhus, 31 as enteric, and 2 as simple continued fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 207, or 14·6 per cent.; those from consumption alone numbered 214, or 10·5 per cent. Two males and three females were aged ninety years and upwards, the oldest of whom was a widow aged ninety-seven years.

A report has recently been issued by Dr. Bate, Medical Officer of Health for Bethnal Green, giving the result of a thorough inspection undertaken by him of the whole of the bakehouses in that district—112 in number—one-half of which are owned and managed by Germans, while several of the pastrycook shops are kept by Italians. There are 41 bakers who carry on their business in underground cellars. In 58 cases the walls and roofs required lime-washing, and in 22 the troughs and utensils were unclean. In 57 instances he found refuse flour swept under the troughs, such refuse being usually sold for feeding pigs. Thirty-five bakehouses

were badly ventilated, and 41 badly lighted. In 14 cases the sink-traps in the bakehouses were defective, and the bell-traps were little better than none at all. The traps in the yards next the bakehouses were also defective in 32 instances; in 12 the water-closets were badly placed, but in only 1 was the closet actually within the bakehouse, though in another case it was in the flour-loft; and the closets were either foul, dilapidated, or ill-ventilated in 61 cases. Looking at the results of his inspection, Dr. Bate is decidedly of opinion that the condition of the bakehouses in Bethnal Green is worse than when he last visited them in 1878; the pastrycooks and bun-shops are in a very much worse condition than the bakers proper, and they all require much looking after. He regrets that their inspection was ever taken out of the hands of the sanitary officers, and also that the Bakehouse Regulation Act of 1863 was ever repealed. It should, he thinks, have been amended, and the registration of all bakehouses made compulsory, power being given to the vestries to refuse to register unfit premises; and he adds, had such been the case, the present deplorable condition of things would never have existed.

The Health Committee of the Accrington Corporation have issued a notice to the managers of the elementary schools, calling on them to close their establishments in consequence of the prevalence of scarlet fever. A return has been issued, showing that the fever cases reported to the local authority from June 2 to October 18 numbered 552, and that during the last twelve weeks there were ninety-three deaths from the disease. At a meeting of the schoolmasters of Accrington to consider the decision of the local authorities to close the schools, a majority of the masters and mistresses were opposed to the step taken, and decided to request the school managers to appeal for compensation for the heavy loss they will have to sustain by reason of the schools being closed. The medical officer reports that at present the epidemic shows no signs of abatement.

At a recent meeting of the Reigate Sanitary Committee, Dr. Jacob, the Medical Officer of Health, announced that the deaths in the borough during the quarter ended September 30 last were at the annual rate of 9·8 per 1000 of the population (estimated at 18,400 persons), and that not a single case of small-pox, scarlet fever, diphtheria, or typhoid fever had been reported to him during the preceding five months.

THE EPIDEMIOLOGICAL SOCIETY OF LONDON.

The thirty-second session of the Epidemiological Society was opened on the 18th inst. by a *conversazione* given by the President, Dr. George Buchanan, F.R.S., to members of the Society, at University College, Gower-street. Among the distinguished company present were the directors of the Army and Naval Medical Services and other eminent members of the profession. Several microscopical specimens, illustrating subjects with the study of which the Society is specially concerned, were shown during the meeting. Among them, preparations of the ova and living embryos of Bilharzia hæmatobia, exhibited by Dr. Cobbold, attracted special attention. The embryos were seen making vigorous movements within the firm outer shell of the ovum, which finally ruptured and allowed them to escape. The specimens were obtained from the urine of a patient who had contracted endemic hæmaturia while in Egypt. Dr. Klein also demonstrated specimens of Bacillus tuberculosus in the sputum and lung from tuberculous patients, from the lung of a cow suffering from bovine tuberculosis (*Perlsucht*); of the bacilli of anthrax and septicæmia; of the bacilli met with in the Welbeck and Nottingham cases of ham-poisoning; of the micrococci present in the lymphatics in ovine variola, and in the blood and liver of patients suffering from infantile diarrhœa. A section through the tongue from a case of Actinomyces bovis also showed very beautifully the stellate masses of the fungus, surrounded by a deeply stained zone of inflammatory exudation, containing numerous leucocytes. Specimens of the embryo Filaria sanguinis hominis from the blood of a patient suffering from chyluria, and from the Chinese mosquito, were exhibited by Dr. Stephen Mackenzie. Examples of Trichina spiralis in the muscles of a wild boar; of Dracunculus (Guinea worm) embryos; of the micrococci of diphtheria, pyæmia, septicæmia, and ulcerative endocarditis; of the ringworm fungus artificially cultivated, etc., were shown by Drs Bastian, Gibbes, Henderson, Mackenzie, and Mr. Malcolm Morris.

PATHOLOGY OF URÆMIA.

Hlawa and Thomayer have endeavoured to advance our knowledge as to whether uræmia in nephritis is accompanied by any definite anatomical changes, and, if so, what causal connexion there might be between these alterations and the symptoms of uræmia. Accordingly, investigations were made by them on twenty-two cases of nephritis, some of which had, and some had not, shown symptoms of uræmia during life; and they have put on record the results (*Wiener Med. Wochenschrift*, No. 39). In all the cases of uræmia the kidneys showed a more or less considerable (generally quite recent) small-celled infiltration; this was not the case with the rest. The infiltration of small cells existed in the neighbourhood of the Malpighian bodies, and more especially at that part where the afferent and efferent vessels pierced Bowman's capsule, as well as about the interlobular arteries and the vessels of the renal cortex generally. This cellular new formation compresses the vessels, and so hinders the proper secretion of urine. The authors therefore regard the presence of this inflammatory product as a very important factor in the etiology of uræmia appearing in the course of inflammatory affections of the kidneys.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the first meeting of the Council of the Royal College of Surgeons for the present session, on the 19th instant, Mr. Thomas Bryant, Surgeon to Guy's Hospital, and a member of the Council, was elected a member of the Court of Examiners in the vacancy occasioned by the resignation of Mr. John Birkett; and Mr. John Cooper Forster, Vice-President of the College, was elected Mr. Birkett's successor on the Dental Board. Sir James Paget, Bart., was nominated "Bradshawe Lecturer"—a lectureship founded in memory of Dr. William Woods Bradshawe, a Fellow of the College, and sometime Mayor of Reading. No date is yet fixed for the delivery of the lecture, but it is understood that it will be given before the close of the year. At the same meeting of the Council, Dr. William Joseph Lunn, L.S.A., of Hull, elected a Fellow at a previous meeting of the Council, was admitted as such, his diploma of membership of the College bearing date May 14, 1858.

LIGATION OF THE COMMON CAROTID.

Weljaminow, of St. Petersburg, has collected thirty-three cases (*Deutsche Med. Zeit.*, No. 40) in which the common carotid was tied. The artery was ligatured four times for hæmorrhage due to wounds, once for angioma, fifteen times for malignant tumour, for or during operations on the head eight times, four times for operations about the neck, and once for aneurism (Brasdor-Wardrop's method, i.e., ligature on distal side of sac). The right artery was tied eighteen times, the left fourteen (*sic*); eighteen times in men, fifteen in women. The age of many of the patients (fourteen) was between fifty and sixty; in two cases, however, the age

was seventy-two, and in one only twenty-one months. These last three patients got over the operation very well. The wound healed by first intention sixteen times. Erysipelas and secondary hæmorrhage were each observed once only. To prevent the occurrence of cerebral disturbance the artery was systematically compressed some days before ligature. Eleven out of the thirty-three patients died soon after the deligation (33·3 per cent.), but for statistical purposes only 25 (? 23) are available, of which one died, giving a mortality of 4 per cent. The author has collected yet other twenty cases, all treated antiseptically, and all recovered. In conclusion, the writer dilates on the importance of a double ligature, between which the artery is divided.

THE ARMY MEDICAL DEPARTMENT.

It may be remembered that during the last session of Parliament complaints were loudly made against the working of the Army Hospital Corps in the campaign in South Africa, and the Secretary of State for War promised that the organisation of the corps should be fully inquired into. A small Committee was appointed for the purpose, but the expedition to Egypt made the postponement of the investigation unavoidable. It is understood that the inquiry will now be resumed, but that its scope will be considerably extended. It will include in its range the arrangements for the transport of the sick and wounded by sea, the management and nursing in base and field hospitals, and any alleged shortcomings in the hospital arrangements during the recent campaign. The inquiry will, in fact, be into the working of the Army Medical Department. The Committee will be presided over by the Earl of Morley, the Under-Secretary of State for War; and, as at present constituted, his colleagues will be Admiral Sir W. R. Mends, K.C.B.; Major-General Hawley, C.B.; Sir Evelyn Wood, V.C., K.C.B., K.C.M.G.; Dr. T. Crawford, C.B., Director-General of the Army Medical Department; Sir William Mac Cormac, F.R.C.S.; and the Assistant-Director of Supplies and Transports.

TYPHOID FEVER IN PARIS.

The epidemic has rapidly increased since our last report, and the medical journals are loud in their complaints of the tardiness and inefficiency of the Assistance Publique. Notwithstanding that typhoid fever, which is endemic in Paris, has for some time past become epidemic, and the fact, shown for so many years by Dr. E. Besnier, that when it is so an autumnal aggravation is a matter of course, no steps seem to have been taken to meet the emergency, and some of those which have been hastily resolved on are of a very questionable character. Among these, the building sheds in the garden of the Louvre for the reception of typhoid patients, creating a centre of infection amongst venereal female patients of a very susceptible age, has been greatly blamed by the medical press and by the profession, who seem not to have been consulted on the matter. Then it is dwelt upon that, while the walls of Paris are at times covered with official proclamations as to the precautions to be taken against hydrophobia, or concerning the measures suitable for the prevention of contagious diseases among animals, not a word of advice or instruction has been afforded the public respecting typhoid fever, which has now for nearly four months taken on so grave a character. The hospitals are terribly overcrowded, so that a service intended for sixty-eight beds—far too many at any time—has now to be made to hold ninety-six. It is said that 800 *brancards* or trestle-beds are distributed through the various hospitals for extra beds. It is not surprising to hear that the mortality, which at first was very moderate, is greatly on the increase, the percentage continually augmenting. Thus, while from October 12 to 18, with a daily mean of 2129 patients under treatment, there were 130 deaths per week, or 6·11 per cent., from September 18 to 25, when the mean was only 867 patients, there were only 28 deaths, or 3·22 per cent. During the last three weeks for which the returns have been published the deaths increased from 57 to 134 and 250, and the number of admissions from 213 to 536 and 1001. This brings the return to October 12, and there is no reason to believe that the one ending the 19th will be more favourable, as on the 18th there had already been 212 deaths in six days.

OPENING OF THE MEDICAL SESSION IN EDINBURGH.

The medical classes of the University and Extramural School of Edinburgh opened on the 24th inst., and, as far as can be gathered from appearances, there seems to be little fear of any diminution in the number of students. By most of the professors and lecturers introductory lectures were delivered to large audiences, and when Professor Chiene delivered his inaugural address in the chemistry class-room, not only was it crowded to excess, but many students and others were unable to obtain admission. Professor Chiene took as his subject the healing of wounds, and showed that many of the modes of treatment which are commonly supposed to be entirely new were practised by our forefathers, and that even many of the minutiæ of the antiseptic treatment had been more than foreshadowed. Professor Grainger Stewart discoursed on the investigations of Koch and the tubercle bacillus, and Professor Simpson took occasion to review the progress of obstetric surgery, and, referring to the present system of teaching, expressed the opinion that any further improvement in this respect should come through the evolution of a new chair—viz., gynæcology. In the Arts Faculty of the University there was delivered a lecture of special interest by Professor Pearson, his subject being "Dr. John Brown, of Edinburgh"; whilst in the Extramural School, Drs. Miller and MacGillivray (the new teachers of Surgery) opened their classes with inaugural lectures.

THE PRESENCE OF LEAD IN WATER SUPPOSED TO BE POTABLE.

The case of Milnes *v.* The Huddersfield Corporation seems likely to throw some light on the vexed question, how far the presence of sulphuric acid in water tends to add to or to take from its solvent action on lead pipes. It is commonly said to protect the pipes by forming on them a crust of the sparingly soluble sulphate, and this view was advanced by Drs. Tidy and Odling and Mr. Crookes on behalf of the Corporation. But, though true enough of dilute sulphuric acid, it is probably quite otherwise when the free acid is so small as to demand such a delicate test as Poirier's orange for its detection. At any rate, the sulphate of lead is twice as soluble as the carbonate which is formed when lead is exposed to the action of *pure* water and air, and experiments with distilled water show that the presence of sulphuric acid within certain limits—limits which are never exceeded in the case of water-supply—does increase the solvent action. The same result is seen when small quantities of sulphuric acid are added to good spring-waters; but, as Mr. A. H. Allen asked at the trial, what becomes of the free sulphuric acid when added to a water containing several times its equivalent of metallic chlorides? The question is not the action of sulphuric acid on lead, but on earthy chlorides. Doubtless the corresponding sulphates are formed, with liberation of hydrochloric acid; and as to its action on lead there can be no difference of opinion. On evaporating such a water the acid would volatilise, and the sulphates only remain. In other words, it is probable that free sulphuric acid never is present in such waters, since, when added in quantity not enough to render them undrinkable, it is at

once replaced by its equivalent of hydrochloric acid; and the way to obviate the ill effects of this on lead pipes is to neutralise it by the addition of lime. In the case of Huddersfield, the source of the acid contamination seems to be the bed of ochreous earth within the collecting area, and the acidity is at times sufficient to dissolve the lead pipes in a single night to the extent of from 0·5 to 0·8 grains per gallon!

A NEW OCULAR SYMPTOM IN CERTAIN DISEASES IN EARLY LIFE.

"In certain morbid conditions," says M. Parrot (*Revue de Médecine*, October), "if one pinches the skin smartly, the pupil will be seen to dilate." After detailing two series of cases (in one set of which this symptom was present, and in the other absent), he considers the mode of production of the symptom, and he arrives at the opinion that it is not the result of contraction of the radiating fibres through the influence of the sympathetic nerve,—this would, in his opinion, be insufficient to overcome the antagonism of the constricting or circular fibres,—but that it results from vascular depletion of the iris owing to constriction of its vessels. In support of this view he reminds us of an observation of Kussmaul's, that the pupil dilates during inspiration and contracts during expiration. According to Parrot the following would be the order of events: irritation of the skin by the pinch, transfer of this irritation to the medullary centre by the sensory nerves, its reflection thence to the vaso-constrictors of the iris, depletion of its vessels, dilatation of the pupil. An essential factor in the production of this symptom would be the retention of cutaneous sensibility. In the second series of cases, where this symptom was not present, cutaneous sensibility was nearly, if not quite, lost. He arrives at the following conclusions:—"In certain affections of early infancy, with or without convulsions, with or without appreciable lesions of the brain, the patient being in a state of persistent coma, if one pinches the skin, a momentary dilatation of the pupil to even two or three times its previous size is produced. Of these affections, those which are characterised by obvious lesion of the nerve-centres are tubercular meningitis, hæmorrhage into the pia mater, certain cases of chronic hydrocephalus, and, lastly, certain ill-defined conditions in which the volume of the brain encroaches upon the cranial capacity. On the other hand, in other morbid states, mostly without convulsions, but with coma, the pupil, much contracted, undergoes no change even when one pinches the skin with sufficient force to produce movement of the face and limbs. In these patients sometimes there exists no appreciable lesion of the nerve-centres; at other times there may be œdema or marked congestion; but in neither case is there any cerebral compression. . . . . So far, the only practical conclusion one can draw from this group of facts is the following: a child (affected or not with convulsions) who is comatose, and whose pupils do not dilate when his skin is pinched, is not suffering from meningitis or hæmorrhage into the pia mater, but death is imminent."

THE MEDICAL REGISTER.

It may be of service to our medical brethren to direct their attention to a notice in our advertisement columns from the Registrar of the Medical Council in regard to the correctness of addresses in the Medical Register. The Registrar of the Medical Council does all he can do to secure for each registered practitioner a correct and complete entry of his address, and of any registrable addition to his qualifications that he may wish inserted in the Register. But in order to enable him to do this, every practitioner must be careful to send to *the Branch Registrar by whom he was originally registered*, immediate notice of any change in his address, and to answer any inquiries in regard thereto that he may receive from the Registrar. If practitioners neglect these duties, they are liable, by Section 14 of the Medical Act, to find that their names have been erased from the Medical Register, and that they have imposed upon themselves certain disqualifications—such as to hold certain appointments, and to sign valid certificates. The Registrar is bound to erase the names of all who fail to answer his letters of inquiry; but he cannot, and certainly would not, do so in any hurry; he cannot take steps for the erasure of a name till six months after due inquiries have failed to produce the required information. No one can fairly complain of having to take a little trouble now and again to keep the Register correct and trustworthy.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

At the opening meeting of the present session of the Medico-Chirurgical Society, on Tuesday evening last, Mr. Marshall, the President, announced some "innovations" in the procedure of the Society's meetings, which, on the whole, will, we think, give satisfaction to the Fellows. First, he announced that in future the abstracts of the papers to be read will be printed and at the disposal of Fellows both before the day of the meeting and on the evening itself. In this way, it is hoped, Fellows will be better acquainted with the business of the evening; and such as care to take part in the discussions will be able to prepare their remarks with care, and so add to the interest of the paper. Secondly, the discussions which follow on the reading of the papers of the evening are to be printed in the *Proceedings*. This also, it is thought, will be an inducement to intending speakers to prepare their remarks beforehand, and so to secure adequate and instructive debate on the subjects brought forward. Thirdly, authors may read their own papers if they think fit. In this way they will be able to emphasise the particular points in their paper to which they wish specially to draw attention. Finally, in addition to the discussion of medico-chirurgical subjects, it is proposed to show any new instruments of special merit, and new inventions of scientific instruments which bear on the study or practice of medicine, microscopical and other preparations of pathology, physiology, or anatomy, such as may from time to time be thought likely to interest the Fellows attending the meetings. We shall watch the effect of these "innovations" with great interest, hoping that they will tend to improve the attendance at the meetings, and increase their vital energy. We feel much doubt, however, as to the wisdom of publishing the discussions in the *Proceedings* of the Society. Is it not adopted as a last hope of giving value to the *Proceedings*, and are they worth the effort? The President announced that the new volume of the *Transactions* was ready, and would shortly be delivered. Two interesting papers were then read and discussed; the report will be found in another column.

DISPLACEMENT OF THE KIDNEY AS A CAUSE OF HYDRONEPHROSIS.

In these days, when so many and so varied consequences are imagined by some to result from displacements of the uterus, it is not surprising that a surgeon should have thought it possible for displacement of the kidney to lead to occlusion of the ureter. A case is reported in a recent number of the *Archiv für Gynäkologie*, by Prof. Kehrer of Heidelberg, in which the theory above indicated seemed to him a possible explanation of the facts. But, unlike many theorists, Dr. Kehrer did not accept the hypothesis as satisfactory without putting it to the proof, and on this account his contribution is of much interest. The patient was aged thirty-two, and had a tumour as big as a man's head, which

had been first noticed nearly two years previously. It was tympanitic on percussion—a peculiarity which made diagnosis difficult. The abdomen was opened, the tumour tapped (by which gas was let out and fluid drawn off), and then removed, a small portion, the vascular connexions of which were too close to admit of its removal, being left behind. The tumour was found to be an enormously dilated kidney, but no obstruction could be found in the part of the ureter which was removed with it. The patient recovered well. In commenting on the case, Prof. Kehrer points out that large hydronephrosis is only met with when there is long continued, but not complete, obstruction to the outflow of urine, or when the obstruction is intermittent. Absolute closure of the ureter does not produce a renal tumour of great size. Dr. Kehrer's patient attributed her disease to a strain. It occurred to him, therefore, that the strain might have produced a displacement of the kidney, leading to flexion, and consequent obstruction of the ureter. He proceeded to put this theory to the test in the following manner, on the dead subject. He made an opening in the bladder, so that the outflow of fluid from the ureter could be watched, and then inserted a canula into the pelvis of the kidney. All the other abdominal viscera were left untouched. Water was then allowed to flow into the pelvis of the kidney, and the pressure (twenty to thirty centimetres of water) required to make it flow through the ureter into the bladder was noted. Then the upper end of the kidney was loosened from its capsule, and the organ was pushed into a transverse position. This produced no alteration in the escape of fluid. The kidney was then turned so that its pelvis, with the opening of the ureter, looked directly forwards; but this dislocation produced no appreciable hindrance to the flow through the ureter. Dr. Kehrer therefore dismisses, as being without support from fact, the theory that mechanical change in the position of the kidney can, either by compression or by bending of the ureter, lead to obstruction of the flow of urine through it.

THE PARIS WEEKLY RETURN.

The number of deaths for the forty-first week of 1882, terminating October 12, was 1174 (631 males and 543 females), and among these there were from typhoid fever 250, smallpox 7, measles 3, scarlatina none, pertussis 6, diphtheria and croup 24, dysentery 1, erysipelas 1, and puerperal infections 6. There were also 43 from acute and tubercular meningitis, 169 from phthisis, 21 from acute bronchitis, 51 from pneumonia, 106 from infantile athrepsia (40 of the infants having been wholly or partially suckled), and 33 violent deaths (28 males and 5 females). The number of deaths registered is higher than that of any of the preceding four weeks, the deaths from typhoid fever having increased from 134 of last week to 250. There were also 1001 cases admitted into the hospitals during the week, in place of 536. The mortality from this disease has reached, in the different arrondissements, from 1·31 per 10,000 inhabitants to 7·12 per 10,000. The births for the week amounted to 1203, viz., 627 males (459 legitimate and 168 illegitimate) and 576 females (417 legitimate and 159 illegitimate): 122 infants were either born dead or died within twenty-four hours, viz., 68 males (44 legitimate and 24 illegitimate) and 54 females (33 legitimate and 21 illegitimate).

At a meeting of the Royal College of Surgeons of Edinburgh, held on the 18th inst., Professor William Turner was unanimously elected President for the ensuing year.

Mr. J. N. Langley, of Trinity College, Cambridge, has been approved as a Teacher of Physiology.

The Examiners in State Medicine in the University of Cambridge have issued a supplement to the list of those gentlemen who were successful in the recent examination for the certificate in Sanitary Science, containing the name of Mr. Henry Smith, M.B.

The family of the late Professor Francis Maitland Balfour have presented his scientific library to the University of Cambridge, as an addition to the Morphological Laboratory. Our contemporary *Nature* states that the library consists of rather more than 500 volumes, and 1100 pamphlets bound in seventy-seven volumes, and includes many most important original papers on morphology and embryology, which had been carefully collected and arranged.

Mr. A. Sedgwick, who was Mr. Balfour's demonstrator, and had sole charge of the classes for two terms this year, while Mr. Balfour was ill, has been appointed by Trinity College to a lecturership, on conditions like those under which Mr. Balfour conducted his classes before he was appointed Professor.

A large gathering of eminent members of the Universities of Cambridge and Oxford and distinguished men of the world of science met at Cambridge, on Saturday, for the purpose of erecting a memorial to the late Professor. It was decided that a fund should be raised, to be called the Balfour Fund, for the promotion of research in biology, especially animal morphology. The Balfour family have given £3000 to the fund, and Dr. Michael Foster has presented to it the legacy of £1000 left to him by Professor Balfour to be expended in promoting the study of biology.

It is intended to establish a studentship of the value of not less than £200 a year, and persons other than members of the University are to be eligible to it. But, wonderful to relate in these days, the meeting had the courage to resolve that the studentship shall not be awarded by competitive examination.

Dr. Aquilla Smith has been re-elected representative of the King and Queen's College of Physicians in Ireland on the General Medical Council.

The current number of the *Philanthropist* contains a table of pay hospitals and departments, which will be found useful for reference. The table includes a list of sixteen institutions, hospitals, and convalescent hospitals and homes, where patients are admitted who can pay for their support. Separate columns in the table give the address, the number of beds for paying patients, the average number of paying patients in the year, the year when such beds were first provided, the charges made per week, and information as to whether the charges include medical attendance and all necessaries.

Some degree of the following kind of paternal government, as regards care of life and limb, would not be amiss now and then in England. The Vienna municipal authorities have, says *Nature*, established regulations for persons wishing to manœuvre a balloon: they are to be obliged to prove that they have gone through a course of instruction with a competent aëronaut, and have executed by themselves a number of successful attempts. Persons desirous of being passengers in a balloon will have to procure an authorisation from their wife and children, if any!

THE NEW ENTRIES AT THE SCHOOLS.

The following are, we believe, the numbers of the new students at the various schools:—

	Full course.	Occasional.	Total.
St. Bartholomew's	110	51(a)	161
University College	89	55(b)	144
London	87	40	127
Guy's	81	15	96
St. Thomas's	62	31	93
Charing Cross	44	19	63
St. George's	42	6	48
Middlesex	37	6	43
King's College	35	—	35
St. Mary's	26	6	32
Westminster	24	1	25
Bristol	29	—	29
Durham College of Medicine	31	30(c)	61
Owens College, Manchester	58	18	76

FROM ABROAD.

Progress of Population in Switzerland.

The August number of the *Journal de la Société de Statistique* furnishes an analysis of the movement of the Swiss population derived from the census of 1880, from which we take the following facts:—

Marriages.—In 1880 there were 19,413 marriages—that is, only 6·8 per 100 inhabitants. This is the smallest proportion hitherto attained, the mean of the years 1871-75 having been 8, and that of 1876-80, 7·4. This is but the faithful image of the situation which prevails over the greater part of the countries of Europe, resulting from the *Krach* which has affected them in succession. Without this crisis, it cannot be doubted that the number of marriages would have increased, in consequence of the removal of legal obstacles in some of the cantons. Compared with the 19,413 marriages contracted, there were 16,650 dissolved by the death of one of the parties, and 826 by divorce—leaving a balance of 1907 in favour of the marriages celebrated. Among those who contracted marriages in 1880 there were, per 1000 marriages, 842 male and 903 female celibates, 139 widowers and 78 widows, and 38 divorced persons. This proportion is much the same as in preceding years, the marriage of celibates in Switzerland occupying a lower place than in most other countries, except Austria, in which it is lower still. Of the 755 divorced persons who married again, 380 were women and 375 men. This proportion, which is the same as in former years, shows that women do not suffer from the consequence of divorce more than men, as is often said. Divorces are more common in Switzerland than anywhere else, amounting to 4·43 per cent. of marriages. They are more frequent when the wife is older than the husband, and much more so among Protestants than Catholics; and they are very rare in rural districts. They are doubly frequent in sterile marriages than when one or more children have been born.

Births.—A constant and progressive decrease of these has occurred since 1876, when they were 94,595, to 1880, when they had decreased to 87,413. But, in spite of this feeble *natality*, as the *mortality* in 1880 was still more feeble, the excess of births and increase of population have been the same as in Italy, where the natality exceeds that of Switzerland by nearly a fifth. As in France, illegitimacy, as measured by the proportion of natural children to the births, diminishes progressively each year; so that while during the last five years the legitimate births have decreased by 7 per cent., the illegitimate have decreased by 14 per cent. In Switzerland the proportion of male to female births is 106 to 100, this excess of males being less in natural children and in all children born in towns.

Born Dead.—While in France the proportion of the born-dead is 4·40, in Switzerland it is but 3·70; but in the latter country this comprises only the born-dead, while in France there are included in this category infants who may have lived for two or three days. The Swiss statistics confirm the fact that there are many more boys than girls born dead, and many more natural than legitimate children. The liberal professions are much less liable to this premature mortality than industrial professions. It is curious to find that one of the classes which produce most born-dead (as well as most infanticides) is that of servants, as also that of persons who have no fixed occupation.

Early Deaths.—However computed, deaths of infants under a year old are found to oscillate between 18 and 19 per cent., the proportion of deaths of natural children being about one-half greater than that of legitimate. This mortality is especially large with the children of women engaged in textile factories.

Suicides.—These are common in Switzerland—viz., 250 per 1,000,000.

Mortality.—The year 1880 has been one of the most favourable of the century, although it commenced with excessive cold which lasted until February, but the ill effects of which were amply repaired during the subsequent months. The general mortality was 21·9 per 1000, which is the mean figure of the year for the other European States. The relations of the mortality to age have not as yet been published.

Increase of Population.—In the interval of the censuses of 1870 and 1880 the excess of births over deaths was 199,944; but as the true increase, as furnished by the census returns, is only 176,955, it follows that the excess of emigration has been 22,989. In reality, this excess should be put down only at 13,000, because in 1870 were enumerated a very large number of French troops who took refuge in Switzerland. On the other hand, in the same interval 70,000 Swiss emigrated, so that 57,000 foreigners took their place. In fact, the number of foreigners increases in Switzerland in a much more considerable proportion than the indigenous population; and it is not without exciting surprise that these foreigners are found to prosper in such large numbers on the soil that cannot maintain its own inhabitants.

Removal of the Sternum.

In the Surgical Section of the German Association, recently meeting at Eisenach (*Allg. Wien. Med. Zeitung*, September 25), Prof. König, of Göttingen, related a case of the total removal of the sternum, which he regarded as unique. A lady had been under the care of various surgeons during two years and a half for a tumour of the sternum, which, although only moderately sensitive, continued steadily to increase. When she came to Prof. König the tumour much exceeded a child's fist in size, was sarcomatous in appearance, and moderately hard, and sprang from the sternum, extending laterally to the ribs. Before proceeding to its removal he practised removal of the sternum on some rabbits, and ascertained how difficult it was to effect this without opening the pleura, or even the pericardium. Having carefully divided the cartilages of the ribs in succession, he passed his finger under the bone which was about to be removed. Until this nothing was amiss, but now an aperture was found to exist in the right pleural cavity, giving rise to a clucking sound of the respiration. He immediately occluded this with some antiseptic gauze, but then discovered that the tumour was adherent to the pericardium, an aperture into which was announced by the recurrence of the clucking sound. This was stopped up like the other, as was a hole which soon afterwards appeared in the left pleural cavity. In spite of all this the patient only suffered from dyspnœa for a short time. The antiseptic dressing was first removed at the end of twelve days, when a portion of the skin of one of the flaps was found gangrenous, and the heart surrounded with pus. The next dressing took place five days later, and complete healing of the wound only took place very slowly. The patient was exhibited. The total removal of the sternum, attended with openings into the three cavities of the chest, must surely be a surgical *unicum*.

Alopecia Areata.

Lecturing on a case of this disease, Prof. Kaposi (*Allg. Wien. Med. Zeit.*, No. 22) observed: You have here a girl sixteen years of age, with the whole of her head bald and of an eel-like (*Aalglattem*) smoothness, and she is without eyebrows or eyelashes. As a rule, the disease pursues the following course:—On the hairy scalp, or in the region of the beard, appear in one or more places, quickly following each

(a) Of these, thirty-six are students for the London University.
(b) Preliminary Scientific.
(c) "Nearly all students for the degree of the University of Durham."

other, bald patches. If we touch the surrounding hair, it immediately falls off. In twenty-four hours a bald patch as large as a thaler will become doubled in size. These discs differ from those of herpes tonsurans, inasmuch as they are entirely bald and of eel-like smoothness, whereas in herpes the stumps (even after shaving) of the broken or cut hairs are to be seen. No remarkable changes are to be observed in these spots. As a general rule, from two to four irregularly shaped patches appear in different places, and then coalesce. After a few months, without apparent cause, the hairs cease to fall, and new hairs are produced, being at first thin or without pigment. These new hairs often disappear, and are succeeded by others which are thick and pigmented, and the whole process is at an end. Oftentimes the new hairs are otherwise pigmented. In the meantime, other spots may become diseased, which pass through the same process, so that the disease may in this way be prolonged for one or two years. As a general rule we may truly say that restitution will usually occur. Often the process continues to proceed further, attacking all the hairs of the body as well as the scalp—the eyebrows, eyelashes, the moustaches, the hair of the axillæ and the pubes. The larger the spot attacked, the more difficult is the restitution. Whether the hair, however, after a series of years is not reproduced, I know not, no case having ever been under my observation for so long a period; but we do well in holding out to such patients the expectation of a complete restoration of their hair. With respect to the cause of this malady, it has been supposed to exist in a diseased condition of the peripheral nerves at these bald spots, and in confirmation of this view it is said that sweating is not induced on these spots when pilocarpin is injected. My own experience does not correspond to this, and you see in this girl, in whom an injection of it was executed two minutes ago, that sweating takes place abundantly at the bald patches. Excessive nervous excitement, terror, imminent danger of life, have been indicated as causes. In the cases that have come under my notice, as also in the present one, absolutely no cause could be assigned. The most healthy persons, especially females with thick, luxuriant hair, may have an alopecia circumscripta occur in the midst of it. As to its treatment, I know nothing. There is a large number of means, but those only are of use which are the *last* employed, when the hairs have already commenced to grow again. These suddenly-occurring changes taking place without any appearance referable to the vascular system, we are led to refer them to a nervous origin, but of their nature, as yet, we know nothing. The presence of some form of fungus, such as we know exists in *herpes tonsurans*, has often been suggested, but never demonstrated. Treatment has been chiefly directed towards the excitement of nervous activity, and tincture of aconite, tincture of cantharides, veratria, carbolic and salicylic acids, croton oil, etc., have been tried. Pilocarpin has, too, been employed as a remedy, as well as electricity, of which so much was expected, and proved to be without any effect. As to other aids, false hair may be substituted for that of the scalp and also for the moustaches, but it can do nothing for the eyelashes. The subjects of this disease often suffer from mental depression in consequence, becoming melancholy and hypochondriacal, and in females hysterical. It is therefore as well, with the view of raising hope, to change the means employed, at least every fortnight.

A POINT IN TRACHEOTOMY.—An article by Dr. Pilcher in the September number of the *Annals of Anatomy and Surgery*, on "Tracheotomy and its Complications," emphasises one point which is not often spoken of—viz., the turning-in of the cartilages of the trachea at their posterior part, thus forming in a number of contiguous rings an elevation running up and down the back of the trachea. This is, of course, due to the spreading apart of the cut surfaces of the rings in front by the canula. To avoid it, he recommends the excision of a portion of the rings by means of a horse-shoe-shaped punch, introduced at the first incision. The cartilages thus not being spread, no arching forwards takes place at their posterior portion. The practical bearings of the protrusion, as it takes place after the ordinary operation, are—first, the obstruction thus caused to the ingress of air; and, secondly, the unfortunate results of mistaking it for a granulation, and trying to remove it.—*Boston Med. Jour.*, September 14.

REVIEWS.

On Ovarian and Uterine Tumours: their Diagnosis and Treatment. By T. SPENCER WELLS, President of the Royal College of Surgeons of England, Consulting Surgeon to the Samaritan Hospital, etc. London: J. and A. Churchill. 1882. 8vo, pp. 530.

THE work before us has been long expected: it will be eagerly read, and frequently consulted. In it, the greatest authority that medical science has, or ever has had, on the subject of which the book treats, has given to the profession the result of his immense experience. Such a record, even though less perfect from the literary point of view than one would desire, must always carry with it a convincing force, which the most finished and elegant monographs, built on a less solid foundation, can never attain. And it is not alone from the extent of his practice that Mr. Wells occupies so exceptional a position; this would not have made him eminent, had it not been combined from the beginning with unflinching candour in the publication of results and of the details of cases. These well-known facts give the present work a unique value, as being the accurate record of the practice, and the expression of the pure judgment upon controverted points, of a surgeon of undoubted honesty and unparalleled experience.

The volume is not so much a new edition of the author's work of 1872, on Diseases of the Ovaries, which was founded on 500 cases of ovariotomy, as a new work on Ovarian and Uterine Tumours, founded on 1000 cases of ovariotomy and seventy cases of operations on uterine tumours. The experience of the ten years from 1872 to 1882 has afforded such ample materials for testing opinions and modifying operative proceedings, that it would have been strange indeed had the writer published a mere *réchauffé* of his former book. On the contrary, the new work gives proofs of progressive advancement, the outcome of study, cautious tentative measures, and widening of views; and while much that had become out of date has disappeared, and some superfluous matter is omitted, there is an abundance of new facts, with a certain amount of recantation of discovered error, and presentation of new opinions.

In questions of ovarian disease, correctness of diagnosis is, of course, a specially important point; and here Mr. Wells was from the first but seldom at fault. Other surgeons too have shown no less strongly the discriminating faculty, and given proofs of almost unerring accuracy; for when such a statement as that of Keith, that out of 400 operations he had to acknowledge having been misled but twice, can be made, it is clear that there is not much room for improvement in the maxims and directions for diagnostic work. Still, even on this subject the work shows amplification, extended illustration, and more methodical arrangement. In reference to the medical treatment of ovarian disease and the minor surgical interference required, as there seems not much to be done, so there is but little to be said; and with regard to tapping, as now practised, it is almost free from the dangers formerly attributed to it. Mr. Wells sometimes resorts to it to relieve symptoms previously to the greater operation, and thinks it right that all early cases should have the chance of cure by such simple means. But he is confirmed in the opinion, expressed ten years ago, that the only cases in which tapping promises any success are those of unilocular cysts with limpid, non-albuminous contents.

The chapter on the rise and progress of ovariotomy is full of interest, containing an unprecedented amount of statistical information as to what has been done up to the present time in the greater number of civilised countries. We naturally turn, however, with special expectation to what the author has to say about the operation in Great Britain. Here, as elsewhere, the results of the earlier operations were not encouraging, and we hasten over the record of many failures, with occasional success, till we come to a sort of autobiographical account of what Mr. Wells has himself accomplished. Of the less practical parts of the book this is perhaps the most enticing. It takes us behind the scenes, as it were, and gives a view of a surgeon resolved, from sympathy with suffering and professional ambition, to encounter difficulties which at the time were becoming so formidable as to cause others to shrink from them,—meeting them all with steadfast courage, and coming

out, after five-and-twenty years of continuous effort, with an amount of success most gratifying to himself and to the science and art of surgery, and in degree rarely paralleled.

Before touching on the details of the operation of ovariotomy Mr. Wells gives some curious statistical observations on the subject of ovarian disease in England and Wales, showing its prevalence, its proportion among the female population, the mortality caused by it and by the operation. Nothing of the kind has been done for other countries. These statements are followed by some important considerations on the conditions which indicate the propriety of surgical interference, the reasons for not delaying ovariotomy, and the states and circumstances influencing the results of the operation, and by a review of all the necessary preliminary proceedings and precautions. As the intention of the book is, above all things, practical, the operation of ovariotomy in all its details, whether complete or partial, simple or complicated, connected with pregnancy or repeated a second time in the same patient, together with all the not less important minutiæ of after-treatment, occupies the largest space, and undoubtedly these pages will be studied with the greatest attention. It is here that we find recorded many recent modifications of views and practices. Mr. Wells is now more in favour of early operation than he was formerly, and urges very strongly the dangers of delay. He records fewer instances of exploratory incision and incomplete ovariotomy; so much so, that in his last series of 500 cases they only amounted to 6½ per cent., and in two recent years he has only met with three instances. This contrasts strongly with the state of things forty years ago, when exploratory incisions and unfinished operations were counted in numbers out of all proportion to the few successful cases. Though always insisting upon the absolute necessity of antiseptic precautions, Mr. Wells has recently put on trial the carbolic spray of Lister, and apparently with good results; but as these come coincidentally with other changes of circumstances, and modifications of treatment, he is not prepared to give a definite answer as to its special value. At any rate, while enforcing in the most emphatic terms the protection of the patient against any possible source of contagion, and adding spray to his other precautions, he has evidently no violent enthusiasm for the Listerian system, and cautiously avoids its dangerous eccentricities. This use of the spray has led to the disuse of the clamp, and the adoption of the intra-peritoneal treatment of the pedicle by ligature, by which the dressing and after-treatment have been much simplified. But by a strange coincidence the results—that is, the mortality per cent.—in what is now strictly private practice stand as near as possible at the same point which Mr. Wells attained in his latest hospital work under the old system. He is, if possible, more scrupulous than ever in effecting the completest "toilette" of the peritoneum, and, while accustomed to operate with all needful circumspection, he insists much upon the evils of tediously protracted and hesitating proceedings. He continues to use only silk for ligatures and sutures, but now has it carbolised, and by the use of pressure-forceps, large and small, renders his operations practically bloodless. Up to the date of the publication of this volume he had done ovariotomy 1071 times, with 234 deaths and 837 recoveries, removing both ovaries in more than 80 cases, and operating for the second time on the same patient in 13 instances, of which all but 2 did well. It is very important to observe that while the mortality of ovariotomy in the hands of the author has gone on steadily diminishing, from 34 in the first 100 cases to 11 in the last 100 of the 1000 cases, of the 71 cases following the thousandth 67 recovered and only 4 died. In the later operations the recoveries have been about 90 per cent. Such results very much more than justify the principle of an operation which at one time was so forcibly denounced; and when the amount of life gained is calculated, and the subsequent happy and useful condition of the patients is taken into account, it is not easy to over-estimate the benefits which it brings to an otherwise hopeless class of sufferers. Mr. Wells has been able to follow up the subsequent history of his patients, and he gives some interesting information concerning them. A large proportion of those who recovered after the operation are still living and in good health. In the five-and-twenty years there have been 117 deaths at various dates after the operation—6 from the return of the ovarian disease, 32 of malignant disease of other parts, 7 of some pelvic or abdominal disease not named, while the rest have occurred from ordinary causes of death quite unconnected with the operation. Seventy of the single women have married since, and, together with 70 of the women who were married at the time of operation, and 3 others who have had one child each, have borne children—the number, including one case of triplets and several of twins, reaching a total of 228 children amongst 143 women.

We have said that the work might have been better as a literary production. It would be much improved if it were compressed into considerably less than its present bulk. It contains many *verbatim* extracts (many of them reports of cases) from former publications of the author, the essential parts of which might have been put in a few lines. At the time and in the place of their original publication, full discussion and description were essential; but at the present day, and in a systematic work, it seems to us only wasting space to recapitulate arguments and quote the full particulars of cases bearing upon points long since settled. In a few places the revision of the proof-sheets seems to have been so carelessly done that the meaning baffles comprehension—*e.g.*, here is a paragraph: "In the spring of 1872, however, I twice operated for what were really fibrous tumours of the ovary—the right in both cases. One weighed nine ounces, the other four pounds and a half. There was a large quantity of fluid in both the peritoneal cavities. One patient was in the third month of pregnancy, the other a single lady. Both recovered. One of these tumours is now in the museum of the College of Surgeons. The first of these was a solid mass weighing five pounds six ounces. The second was much larger, and amounted to twenty-three pounds six ounces."—(Page 48.)

On the subject of oophorectomy Mr. Wells has given very salutary and not unnecessary cautions. The principle put forward by Battey is of very limited application, and open to serious abuse, although Hegar's application of the operation in cases of bleeding fibroids is more hopeful. In connexion with other operative measures occasionally called for in uterine diseases, he relates the history of the recent removal of a pregnant uterus for epithelioma of the cervix. It was not a supra-vaginal amputation, like that of Porro, but cutting round the neck into the vagina, and leaving no stump, made it not only the first example of excision of the gravid uterus in England, but a unique operation.

And now, after all that has been said and done in the way of ovariotomy, the pathology of ovarian disease remains a great blank, and, we might say, a great cause of reproach to medical science. It is a matter which requires thorough and laborious investigation, and opens up a field of work for the younger members of the profession, in which, by successful industry, they can do more real good and gain more lasting fame than could result from any mere operative skill and prosperity.

The Thirty-sixth Report of the Commissioners in Lunacy to the Lord Chancellor. Printed by order of the House of Commons.

It is a pity that the exhaustive Reports of the Commissioners in Lunacy are not more widely known among the general public, for nothing would be more serviceable, in showing the absurdity of such scandalous insinuations against asylums as are now and then published in lay papers, than a knowledge of the minute and laborious supervision which is exercised over all asylums, both public and private, by the Commissioners in Lunacy. The current Report for the year 1881 contains several additional features of interest. The elaborate statistical tables which form so important an element in the Report are this year rendered additionally valuable by comparison with the figures of the preliminary report of the late Census. The main facts brought out by these figures are that the steady and progressive increase in the number of insane under care, which has existed since in 1859 the numbers were first collected, still continues. This increase is, however, mainly due to, and proportionate with, the general increase of population, but there is a slight excess in the number of lunatics that cannot be so accounted for. This increase is exclusively among lunatics of the pauper class, the ratio of private lunatics to population having slightly decreased. Even the increase among the paupers is shown by other tables to be mainly due to the transference to asylums of a class of patients who would formerly have been maintained in workhouses and as outdoor poor. Therefore, as we have pointed

out on former occasions, and for the same reasons as we have formerly given, we hold that, on the whole, there seems to be no ground for apprehension that insanity is seriously on the increase in this country. No fewer than thirteen counties exhibit an actual decrease in the number of pauper lunatics, the most fortunate in this respect being Bedfordshire, which shows a diminution of 5 per cent. Another very encouraging feature in the Report is that the percentage of recoveries for the whole country is no less than 39·72, which, as the Commissioners remark, "must be considered very satisfactory, when it is borne in mind that a very large proportion of the admissions are chronic cases, admitting of amelioration, but not of cure." From time to time the Commissioners report the condition of the private institutions which are under their jurisdiction, and this is the case in the present issue. Of almost all of these a favourable account is given, not in general terms, but with specific reference to observations made and facts recorded. Among the reports of the county and borough asylums there is very much that is interesting and important to those personally concerned, but the interest to outsiders lies mainly in the minute vigilance which must be exercised when we find such small, but not unimportant, matters recorded as that the screws which uphold a window-shutter have their heads exposed, and thus place it in the power of a patient, with a little mechanical aid, to remove the shutter and effect his escape. Moreover, the amount of work done by the inmates of asylums, and the variety and extent of the amusements provided for them, are matters of surprise to those who are unacquainted with the details of their management.

OBITUARY.

CAMILLE JOSEPH DAVAINE.

Davaine was born at St. Amand-les-Eaux, in the department of the Nord, and gave, at an early period, signs of an ardent love of the investigation of natural objects. Taking his degree in medicine at the age of twenty-five, he did not enter into practice, but especially devoted himself to the study of minute organisms by means of the microscope. He soon afterwards attracted the attention of Rayer, to whom he became greatly attached. When Rayer founded the Société de Biologie, Davaine became a constant contributor to its *comptes-rendus* and memoirs. In this way an immense number of important researches in anatomy and physiology were recorded; but it was not until 1860 that his great work on the Entozoaires made him widely known both at home and abroad. Upon this followed his researches into the bacteria as the contagious agent in *charbon*—investigations which have an important relation to those of M. Pasteur. Introduced by Rayer into the Imperial family and into that of the Rothschilds, he had no occasion to seek for practice, and, having little ambition for distinction or money, he devoted himself ardently to the pursuit of science. He never held an official position, nor was he ever advanced beyond the rank of a Chevalier of the Legion of Honour. He was elected into the Académie de Médecine in 1868, as a successor to Trousseau, but failed to obtain a seat in the Institut. The Société d'Agriculture bestowed a large recompense on him on account of the great share his contributions have had in relation to the recent discoveries concerning contagious diseases of animals. He died at the age of seventy-one, after a painful illness, on October 14, desiring that no address should be delivered over his grave.

Deficient Kidney-Action in Eczema.—Dr. Bulkley states that insufficient kidney-action is a common symptom of eczema of the anus and genitals. There is usually a copious deposit of amorphous urates, and frequent and imperative micturition is not uncommon, the repeated calls to pass urine in the night and the itching often reacting upon each other so as to render sleep almost impossible. He recommends pot. acet. 3j., tr. nuc. vom. 5ij., inf. quassiæ 5iv., —a teaspoonful in water after meals. This has often to be continued during the whole course of treatment. A large amount of oxalate of lime is sometimes found in the urine in eczema; and this oxaluria may be quickly relieved by means of strong nitric acid in doses of two drops after each meal.—*Louisville Med. News*, September 23.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

October 20.

Notification of Infectious Diseases—Typhus at the Workhouse Fever Hospital—Opening of the Session at the Medical Institution.

The following are the recommendations of the Health Committee to the City Council in regard to the notification of infectious diseases:—

"Infectious diseases to mean small-pox, cholera, typhus, typhoid, scarlet, relapsing, and continued fevers, scarlatina and diphtheria, and such other disease as may hereafter be scheduled with the approval of the Local Government Board. That the provisional order or bill contain clauses for the following purposes, viz.:—

"1. Notification to be given by the occupier of a building used for human habitation in which any person is suffering from any infectious disease, so soon as he becomes aware or has reasonable cause to suspect the existence of such disease.

"2. Notification to be given by the medical attendant, on his becoming aware of the existence of such disease, to the medical officer of health.

"3. A fee of 2s. 6d. to be paid to the medical attendant for each certificate of notification. Power to be given to the Corporation to have diagnosis verified before payment of fee if they think proper.

"4. Where a certificate of notification has been given by the medical attendant, steps for the removal of an infected person to a hospital under Section 124 of the Public Health Act, 1875, shall not be taken without notice to the medical attendant and to the person in charge of the patient. And all persons, other than those in receipt of parochial relief, ordered to be removed may require the removal to be done under the supervision of their own medical attendant, and the Corporation shall pay the cost, not exceeding ..... in any one case.

"5. If the patient is not in a condition to be removed, and isolation is not satisfactory, the medical officer of health may apply to the police magistrate for an order to require any inmates not in charge of the patient to leave the house, and to prohibit anyone not in charge of the patient from entering the house, without the authority of the medical officer of health or medical attendant, until the house has been disinfected. No steps to be taken to enforce this power without notice to the medical attendant, if he shall have duly notified the disease to the medical officer of health.

"6. Power for the Corporation to provide suitable places for the temporary accommodation, free of charge, of the inmates of any house who have been compelled to leave their dwelling, under Clause 5.

"7. Power for the Corporation to provide hospital accommodation, free of charge, for the persons removed, and who are not in receipt of parochial relief (medical or otherwise), and also to provide, free of charge, maintenance and nursing. Patients so removed may, if they think fit, have their own nurses and medical attendants in the hospital at their own cost.

"8. The Corporation to be empowered to provide nurses, free of charge, if required, for patients remaining in their own houses, as mentioned in Clause 5.

"9. Power for the Corporation to make regulations with reference to nurses and attendants (not being medical attendants) at hospital for the reception of infectious cases, in order to prevent infection from being communicated by such nurses and attendants.

"9*a*. A penalty of twenty shillings upon parents sending children from infectious houses.

"10. Power for the Corporation to grant compensation in cases of compulsory removal, under Clause 4, of persons not in receipt of parochial relief, and to make it obligatory upon the Corporation to make compensation for direct loss sustained by healthy persons compulsorily removed under Clause 5. All compensation, in case of dispute, to be assessed by the police magistrate.

"11. Power for the police magistrate to prohibit the sale

of milk from any premises from which, in his opinion, it is likely that contagious or infectious disease will be spread.

"12. Power for the police magistrate, after hearing evidence, to order any district, street, court, or place to be liable, during a period to be fixed by him, to directions and regulations to be made by the Corporation for the following purposes:—(1) For visitation from house to house. (2) For the abatement or removal of any nuisance which is reported by the medical officer or sanitary inspector to have, in his opinion, caused, or to be likely to cause, or to aggravate, any infectious or contagious disease, or to interfere with the removal thereof, or to injure the health of the inhabitants. (3) For preventing the spread of any such disease in the district, street, court, or place, or in ships or vessels being at the time within the limits of the Act. (4) For the dispensing of medicines and for affording to persons afflicted by or threatened with disease such medical aid and such accommodation as may be required. (5) To close schools in infected district.

"13. Penalties: Failure of householder to notify, if medical attendant in attendance, not exceeding 40s.; if no medical attendant, £5. Penalty on medical attendant for wilfully neglecting to notify, 40s."

At the meeting of the City Council on Wednesday, the 18th inst., the preamble to these recommendations was unanimously agreed to. Dr. Carter sent in a memorial from 277 medical men, praying that the matter might be postponed until Parliament had legislated upon the subject for the whole country. In order to satisfy the medical men, Mr. A. B. Forwood, the chairman of the Health Committee, and the prime mover in this matter, moved an amendment to Clause 4, by which the health authorities would be excluded from interfering with any infectious case if it were certified by two medical men to be sufficiently isolated. This was lost, and it was carried that a certificate of sufficient isolation from one medical man should prevent such interference. An amendment to Clause 2, to the effect that medical men be exempted from the duty of compulsory notification, was only lost by a small majority. It was then carried, after much opposition on the part of Mr. Forwood, that further consideration of the clauses be postponed to the new Council. As this resolution will delay the application to Parliament for a year, Dr. Carter and the Society against Compulsory Notification of Infectious Disease may congratulate themselves upon a victory in this, their first, contest. Drs. Hamilton and Bligh have fought well for the medical men in their places in the Council and in the Health Committee.

Meanwhile, I have been informed by Dr. Robertson, Medical Officer to the Workhouse Fever Hospital, that typhus is steadily claiming its victims. He has about one hundred cases of that disease under his charge, and its type is rather severe.

On the 12th inst., Dr. Shadford Walker, the President of the Liverpool Medical Institution, delivered his inaugural address, on "The Influence of Fashion on Medical Practice." He illustrated his subject by two instances within his own experience. In the early part of his career, phlebotomy was universally practised, and a case of lancets was a *sine qui non* with every medical man. Quite suddenly, phlebotomy was relinquished and universally condemned, even in those inflammatory diseases for which it was assumed to be indispensable. At the present time, as well as in the past, the quantity of stimulants necessary in disease is and has been a very variable one. At one time, and in some places still, the quantity considered necessary was and is great. In the last few years the pendulum of public opinion has swung to the opposite extreme, and alcohol is by many considered not only useless, but hurtful, in the treatment of disease. Dr. Walker deprecated these violent changes of opinion, as damaging to the reputation of the medical profession, and as calculated to shake public confidence in the hope or belief now entertained, that the treatment of disease depends on scientific observation. He called upon his hearers to endeavour to find some fixed *scientific* principles to guide them in administering alcohol so as to prevent boards of guardians and other lay authorities from deciding the matter for us according to their personal proclivities or on purely economical grounds. About a hundred members attended the opening meeting. Valuable works of art, pharmaceutical preparations, surgical instruments, and entertaining microscopical objects were on view in the different rooms, so that in every respect the meeting was a most successful one.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 17.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

THE CHAIRMAN, in opening the session, paid a short but graceful tribute to the memory of the late Dr. Peacock, one of those who laid the foundation of the Society, and a former President. He congratulated the Society upon the work done in the past, and thought that the large attendance that evening augured well for the future.

SIMPLE ULCER OF THE DUODENUM.

Dr. NORMAN MOORE showed specimens from two cases of simple ulcer of the duodenum. 1. A circular ulcer as large as a fourpenny piece, situate in the duodenum just outside the pylorus. Its base was adherent to the pancreas, and at one point the ulcer had penetrated a considerable branch of the pancreatico-duodenal artery. This perforation was the cause of death. Post-mortem, the whole intestine was distended with blood, but there was none in the stomach. The patient was a man aged thirty-four years. His first symptom was a hæmatemesis of about a pint at 10 p.m. on May 2. He came to St. Bartholomew's Hospital at 11 p.m., looking much blanched. After admission he vomited blood again at 2.30 a.m., and a second time more copiously at 6.30 a.m., became collapsed, and died at 8 a.m., ten hours after his first sensation of illness. 2. A deep ulcer, in part healed, also situate close to the pylorus. Its floor was partly formed by the adherent pancreas, and partly by peritoneum. The patient, a bricklayer, aged forty-nine years, had complained of a slight degree of pain after eating for three months, but not to a sufficient degree to make him apply for treatment. He died of a severe pulmonary catarrh.

ENLARGED RIBS OF RICKETS PRESSING UPON THE LIVER THROUGH THE DIAPHRAGM.

Dr. NORMAN MOORE then brought forward a case of enlarged ribs of rickets pressing upon the liver through the diaphragm, and showed—(1) a cast of the under side of the diaphragm exhibiting three large beads on the seventh, eighth, and ninth ribs (these pressed upon the diaphragm, and through it upon the liver, causing well-marked depressions on each lobe), from a rickety child aged one year and eight months; and (2) a drawing showing depressions in the liver due to enlarged ribs in another rickety child aged one year and seven months. These depressions perhaps appeared larger post-mortem than they would during life, but certainly indicated a permanent pressure of the enlarged ribs upon the liver, a pressure increased by the fact that both children had constricted chests. The slight thickenings sometimes observed in the capsule of the upper part of the liver in children and in adults might be due to the pressure of beaded ribs through the diaphragm.

ANEURISMS IN CHILDREN.

Dr. MOORE next showed specimens from two cases of aneurism in children. 1. An aneurism of the external iliac artery, from a girl aged seven years. The aneurism was at the origin of the external iliac from the common iliac on the right side, and it was a dilatation of the vessel, extending more to the inner than to the outer side. Its cavity was filled with firm laminated fibrin. A microscopic section showed that the aneurism was a simple dilatation of the vessel, all parts of which were represented in the wall. There was a marked increase of nuclei in the middle and deepest layer of the inner coat. No other aneurism was found. On the mitral valve there were some small growths, and on one aortic cusp there was a very large calcified growth. The aorta itself was free from any obvious morbid change, and a microscopic section showed it to be perfectly healthy. The girl was an out-patient at St. Bartholomew's, and died suddenly. The aneurism would appear to have been due to an embolus from the aortic valves, followed by a deposit of fibrin, in the method of formation first suggested by Dr. John Ogle in the *Pathological Society's Transactions*, vol. viii., page 168 (1857), and afterwards more fully treated of by him in a paper in the *Medical Times and Gazette* for February 24, 1866, and

by Mr. Callender in the *Pathological Society's Transactions*, vol. ix., page 93. In Mr. Callender's case the dilatation was in a branch of the pulmonary artery, and could hardly be described as an aneurism; but, as in the present example, the bulging was just beyond bifurcation. 2. The heart and aorta of a girl aged five years, showing an aneurismal bulging a quarter of an inch above the aortic valves. The aneurism was due to an ulcer on the posterior wall of the aorta, which was associated with an ulcerative endocarditis of the aortic valves. There were also minute growths on the mitral and tricuspid valves. The child had acute general tuberculosis, and died with tubercular meningitis.

Aneurism of Aorta with Abnormal Structure of Heart.

Dr. Norman Moore showed the heart and aorta from a man aged eighteen years, who died in St. Bartholomew's Hospital, in one of Dr. Church's wards, with Bright's disease and pericarditis. The right side of the heart was normal, and so was the mitral valve. Just below the aortic valves was a thickened ring of fibrous tissue attached on one side to the septum ventriculorum, and on the other side to the outer wall of the heart. Above this ring the aortic valves were competent and of a normal form. This ring, which had a diameter of one-third of an inch, might be due to an imperfectly developed second tier of aortic valves formed from the original endocardium, like the numerous rows of aortic valves in ganoid fishes. At the root of the innominate artery there was a circular opening of an inch in diameter, which led into an aneurismal cavity, partly filled with laminated fibrin. The contents of the sac had dissected between the layers of the pericardium, and formed a mass two inches by two and a half, resting on the base of the heart and pressing upon the pericardial veins, and no doubt causing the enormous serous effusion which stretched the pericardium across the whole front of the chest. The patient had had an illness, which might have been acute rheumatism, nine years before his death. Most cases of malformation of the heart and aorta were due to either endocarditis or congenital variation. This example was interesting as illustrating a result of variation in its double row of structures around the aorta, and a result of acute endarteritis in its aneurism.

Dr. Payne said that he was reminded by the description of Dr. Moore's last specimen (for he had not yet seen it) of a case of his own which he should imagine was of a similar nature. In his case there was a structure with a valve-like appearance below the normal aortic valves. He had brought the specimen before the Society some years ago as an instance of congenital malformation, but it had been referred to a committee, who had been of opinion (and he eventually fully agreed with them) that these structures had resulted from thickening of the endocardium. He was of opinion that in these cases the endocardium became thickened and sodden, and was then liable to be puckered up into folds.

Dr. Pye-Smith suggested that a persistence of the constriction of the bulbus aortæ would account for the condition in this specimen. He did not think we ought to go back so far as to fishes, when we could find a reasonable explanation in the state of things in the human embryo.

The President, referring to another of Dr. Moore's cases, thought that it was already fully proved that in children aneurisms were the result of embolism. Long ago the older physicians had been aware that aneurisms were associated with rheumatism, and this they referred to a rheumatic inflammation of the artery, not recognising the embolic nature of the process. He would ask Dr. Moore if he knew of the cause of the ulceration of the duodenum in his cases.

Dr. Moore, in reply, could not suggest any special cause for the ulceration of the duodenum in either case. In regard to Dr. Payne's remarks, he admitted the possibility of endocarditis, but he thought that the fact that there was no endocarditis in any other part of the heart—not even on the aortic valves—was almost conclusive against it. He thought that Dr. Pye-Smith's view was perhaps more likely to be the correct one than his own.

At the suggestion of the President, this last specimen of Dr. Moore's was referred to a committee, consisting of Dr. Payne, Dr. Pye-Smith, and Dr. Coupland.

Double Obturator Hernia.

Mr. Bowlby then showed a specimen of double obturator hernia. The patient, a woman aged sixty-nine, had enjoyed fairly good health, and had never suffered from intestinal obstruction until her fatal illness. This commenced suddenly with pain in the abdomen, vomiting, and constipation. The vomiting continued, and ultimately became fæcal. Examination of the abdomen did not reveal any local spot of tenderness; the abdomen was generally tumid. In a few days she had pain down the inner side and back part of her right thigh, but not much attention was paid to it, as she said she had always been subject to it; and she had, moreover (as the specimen showed), well-marked chronic rheumatoid arthritis of that joint. Death took place on the eleventh day. At the autopsy there was found a strangulated obturator hernia on the right side; the hernia passed just above the edge of the obturator internus, and the upper margin of the sac was immediately beneath the ramus of the pubes. The obturator nerve was stretched over the front of the sac. The intestine was adherent to the inner surface of the sac. There was also an obturator hernia on the left side, but the sac was empty. The distribution of the arteries around the neck of the sac would appear to be somewhat variable in these cases, and in this instance on one side the artery was in front of, on the other side behind, the sac. The patient had also distinct bulgings at the crural rings, illustrating what he might call a hernial tendency—a fact often noticed before. In most cases of this kind the strangulation is not very acute, and in this patient the bowel was in no way gangrenous. The tumours in these cases are never very large.

Tricuspid and Mitral Stenosis.

Dr. Bedford Fenwick showed the heart of a woman aged thirty. Briefly, the case was as follows. She had rheumatic fever when fifteen years of age, and since then had been subject to winter cough and dyspnœa on exertion. She was, however, in fairly good health to within six months of her death; then the cough and dyspnœa became worse, and œdema of the legs supervened. When admitted into the London Hospital, under the care of Dr. S. Fenwick, her pulse was small and frequent, the jugulars were distended, but there was no cyanosis. The cardiac dulness was greatly extended to the right; impulse beat half an inch outside the nipple. At this spot a presystolic thrill could be felt, and a presystolic and systolic murmur heard. Close to the lower end of the sternum a short, rough presystolic and systolic murmur could be heard. At the post-mortem examination the right auricle was greatly dilated and hypertrophied, the left auricle slightly so, the ventricles being relatively small. The tricuspid valve was greatly thickened and contracted, just admitting the tip of the little finger. The mitral valve was greatly stenosed, the opening being a mere slit. Two years ago he had brought forward a large number of cases of tricuspid and mitral stenosis, and had called attention to the great preponderance of women in relation to this disease. Out of a total of seventy cases that he had now collected, only eight were men. He had found the average age to be about thirty-one years. In these cases the mitral valve was always more diseased than the tricuspid.

Dr. Norman Moore showed the heart from a man aged twenty-two, a patient of Dr. Gee's in St. Bartholomew's Hospital. The flaps of the tricuspid valve were firmly adherent to one another, and all the cords were thickened. The mitral valve was in the same condition, and the aortic valves were thickened and everted. Tricuspid stenosis seemed to be a sign of a severe and wide-spread endocarditis, and in about a third of the cases recorded at St. Bartholomew's Hospital, and in the present example, was associated with pericarditis. In this case there was during life a presystolic thrill at the apex, and a loud presystolic and systolic murmur; but there was no pulsation of the veins of the neck.

The President thought it most probable that the disease took place simultaneously in both valves.

Dr. Bedford Fenwick, in reply, thought that the disease of the mitral valve was generally of longer standing than that of the tricuspid. He would attribute the change to rheumatism.

Parovarian and Broad-Ligament Cysts.

Mr. Alban Doran exhibited a series of preparations demonstrating the visible seat of origin of cysts of the broad ligament. He said that without a practical knowledge of the anatomy of the parovarium it was impossible to gain any correct evidence necessary for proof of the parovarian

or non-parovarian origin of such cysts. A dissection of the parovarium was therefore shown: the vertical tubes and the horizontal tube above them were exposed by the removal of the posterior layer of the broad ligament, and Gaertner's duct appeared like a thin white nerve. The parovarian tubes, he said, normally tended to degenerate, and their epithelium was by no means invariably ciliated, but often merely made up of cubical cells. The inner lining of the cyst at the end of the horizontal tube was quite endothelial in character; so were the cells lining the "hydatid of Morgagni" at the end of the Fallopian tube. A number of minute cysts, also with a lining of endothelium, were very commonly found between the layers of the broad ligament, and unconnected with either the Fallopian tube or the parovarium, although they might lie over either of those structures. From the vertical tubes of the parovarium sprang the multilocular papillary cysts, also originating from other relics of the Wolffian body in the hilum of the ovary, or even from Gaertner's duct. From the small, purely broad-ligament cysts, or from the terminal cyst of the horizontal tube of the parovarium, arose the thin-walled so-called "parovarian cysts," with single cavities and watery contents. It was doubtful whether any cysts formed from portions of the Fallopian tube, excepting when that structure underwent general cystic dilatation or lodged an extra-uterine fœtus. The hydatid of Morgagni never became a large cyst.

Gangrene of Fingers.

Mr. Jonathan Hutchinson exhibited a patient who had lost nearly all the ends of his fingers through exposure to cold without any definite frost-bite. He was a labourer, and had been at work at a railway one snowy night, and after this the ends of his fingers became inflamed and gangrenous. This occurred four years ago, and ever since the ends of his fingers had remained swollen and cold. Previously he had always been liable to have his fingers "die"—*i.e.*, get blue and cold. Mr. Hutchinson considered that there must be some peculiar weakness of constitution.

The President had had a case under his observation during last winter, of gangrene of the fingers, toes, and ears; and also hæmatinuria. He was ignorant of the pathology of the affection, unless the hæmatinuria threw any light upon it.

Mediastinal Tumour.

Dr. Samuel West showed a mediastinal tumour taken from a boy aged fourteen. Intercosto-humeral pain had been the first symptom, then emaciation, brassy cough, and dyspnœa. The physical signs were well marked when he came in, and more extensive to left of sternum than to right. Later on there was supra-sternal bulging. Two days before death the left radial pulse was smaller than the right. Death was sudden. At the post-mortem the tumour was found to be very large, projecting somewhat to the left, and pushing the heart and diaphragm down; the left vagus nerve, embedded in the tumour, was about three times its normal thickness. Microscopically, the tumour was a small round-celled sarcoma, and the nerve was invaded by the same growth. The chief points of interest in the case were the age of the patient (much under the average for such tumours), the unusual magnitude of the tumour, and the rapidity of its growth, the whole duration of illness being only two months and a half.

Ulceration of Colon in Enteric Fever.

Dr. Samuel West showed the intestine of a woman aged twenty-eight, who had died in the fifth week of enteric fever. At the post-mortem, purulent effusion, matting together the intestines in the pelvis, was found, resulting from a perforation of the rectum. In the lower part of the small intestines were some cicatrised ulcers of Peyer's patches. The colon showed several ulcers, most in the transverse portion. The ulcer in the rectum that had ruptured was an inch long. There was one ulcer only two inches from the anus. Dr. Samuel West also brought forward another specimen of ulceration of the colon in enteric fever. In this case the perforation in the transverse colon had set up an abscess in the right hypochondrium, between the liver and diaphragm; the diaphragm, liver, and kidneys were all found glued together.

Cirrhotic Liver in an Infant.

Dr. Heneage Gibbes exhibited some microscopical sections from the liver (cirrhotic) of an infant. Jaundice had been noticed soon after birth, and had persisted, with clayey stools. No permanent improvement under treatment had taken place. The jaundice was not very deep. When six months old the infant began to waste, ascites appeared, and death followed in about a month. Only the liver was examined: it was small, smooth, and tough; the common duct could not be found; the portal vein was normal; the pancreatic duct was very minute. Unfortunately, the specimen had reached him in a very imperfect state, and he had been unable to examine the gall-bladder or trace the cystic duct. Microscopically, there was an enormous increase of intralobular fibrous tissue.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, October 24.

John Marshall, F.R.S., President, in the Chair.

Dislocation of the Foot with Version and Torsion of the Astragalus.

Mr. Barwell read this paper. The author said that dislocation of the astragalus was not uncommon, the bone displaced from the socket formed by the leg-bones as well as from the rest of the tarsus received, in nearly all instances, a twist so that its surfaces looked in abnormal directions. Another very rare form of injury was one of which he gave the following as an example:—G. F., aged twenty-eight, received the injury by the overturning of a gig that he was driving, he falling on the right foot. The foot was greatly inverted, the heel raised; the inner malleolus was much obscured, the outer very prominent. The round head of the astragalus was in front of and below the external malleolus. Running from the head to the upper part of that malleolus was a ridge of bone convex outwards. A small wound a little way up the leg communicated with the seat of injury. Attempts at reduction, even though the Achilles tendon was divided, were ineffectual. Mr. Barwell excised the astragalus. It was in its normal place in the tibio-peroneal socket, but was twisted so that the trochlea looked outwards and rested against the articulating face of the outer malleolus. The man did extremely well; he was discharged in three months, walking with crutches, and was shown at the Society's meeting, walking well without any assistance from crutch or stick. After a few remarks on the difficulty of nomenclature in dislocation about the tarsus, the author referred to Malgaigne's description of version and torsion "*sur place*," the former referring to a turn of the astragalus on its perpendicular axis. Of these Malgaigne gave four examples, and the author had collected two others; they all with one exception were inward. Torsion—by which he meant a twist on the antero-posterior aspect—was in reality more rare, although it appeared on first sight more common because Malgaigne quoted six cases; but on examination of the original records, these changes be found to be not *sur place* save in one case (Dupuytren's), and even there the bone was nearly extruded—and in one preparation, the history of which was unknown, and in which the turn was very slight. The author's case was the only one in which a diagnosis has been arrived at during life, and, as far as can be ascertained, the only one in which the bone turned a quarter of the circle, and lay fairly in the tibio-peroneal socket. An appendix was added, giving a short description of every case both of torsion and version in corroboration of these statements. The patient was shown. He walked fairly well; the deformity was slight: there was about half an inch shortening and some wasting of the limb as compared with the opposite side.

The President, in inviting discussion, drew attention to the rarity of the dislocation—dislocation, in fact, without displacement.

Mr. Spencer Watson alluded to a case which had once been under his own care. A girl received an injury to her foot in a gas explosion. There was a clean cut, through which the head of the astragalus projected; but there was neither version nor torsion of the bone. He removed it through the wound, which afterwards healed up. In the course of time, movement was re-established. There was three-quarters of

an inch shortening. When the patient was seen some years later, movement was almost normal.

Mr. BARWELL showed a specimen of the accident, which he had had made artificially. The diagnosis had been made in his case by feeling the trochlear surface of the astragalus turned towards the fibula. He doubted very much whether free motion was to be expected in these cases. His own idea was rather that anchylosis would result, and he showed a preparation of Mr. Canton's from Charing-cross Museum, illustrating how this would take place. Any movement, he thought, which resulted after such an accident would be in the tarsal joints, and not in the situation of the old ankle-joint. In all cases he would advise removal of the astragalus, except perhaps when this bone was dislocated backwards.

The PRESIDENT agreed as to the advisability of the speedy removal of a dislocated astragalus. It had no muscular attachments, and its only important ligament (the calcaneo-astragaloid) was always ruptured by this accident; hence its vitality was greatly compromised after any injury of this kind, and its removal was desirable. He thought there was room for a more careful analysis of all recorded cases than at present existed.

OPHTHALMOPLEGIA EXTERNA COMPLICATING A CASE OF GRAVES'S DISEASE.

Dr. WARNER read notes of this case. The patient was a woman twenty-five years of age, and was the subject of Graves's disease of four years' standing. There was marked mental excitability, and she was frequently attacked with gastric crises, vomiting, dyspnœa, and palpitation. Both eyes were nearly immobile, a condition not accounted for by proptosis; this had existed five months before admission to hospital. Limitation of movements was not equal in the two eyes, and was greater in the horizontal than in the vertical directions; double ptosis was marked. There was also bilateral paresis of the seventh and fifth pairs of nerves, and marked tremor of the legs. There appeared to be no evidence of syphilis. Under treatment the goître subsided, and the general condition greatly improved, but the ophthalmoplegia remains. The unequal amount of paralysis of the two eyes is taken as some evidence of an independent nerve-centre for the movements of either eye, and this is supported by observations in infants in deep sleep and adults in coma, when either eye may be seen to move separately and independently. Again, the greater limitation of movement in the horizontal as compared with the vertical direction is pointed out as probable evidence that separate centres govern these movements respectively.

Mr. H. POWER asked how far physicians now regarded Graves's disease as the result of disease of the sympathetic system. That the sympathetic was concerned seemed clearly indicated by the occurrence of palpitation and heart-troubles, by the gastric crises and the dyspnœa. In this case the proptosis was not a marked symptom; he had seen cases where it was so great as to interfere with the movements of the eyes. Ulceration of the cornea was very rare also; it resulted, he thought, in some cases from exposure. In this particular case there must be something more than Graves's disease.

Dr. ALTHAUS agreed as to the rarity of the case and its complex nature. He thought the localisation of the ophthalmoplegia was more easy than that of the Graves's disease. In the latter, disease of the cervical sympathetic was often found; but cases were known where no disease of this kind was found post-mortem, though carefully looked for by competent observers. Syphilis was nearly always at the bottom of ophthalmoplegia; might it not in this case be the cause of the keratitis? The lenticular ganglion theory of ophthalmoplegia would have to be given up. The disease was now known to be located in the nuclei of the third nerve on the floor of the third ventricle, close to the aqueduct of Sylvius. That ophthalmoplegia should generally occur bilaterally almost implied a central origin rather than a local one.

Dr. SAVAGE said that in two fatal cases, associated with insanity, he had carefully examined the cervical sympathetic ganglia without finding any abnormal appearances whatever. In the cases of Graves's disease which had come under his own observation the symptoms had varied—in some the exophthalmos predominated, in others the palpitation, and in others again the enlargement of the thyroid.

Dr. WARNER replied. He was unwilling to think that syphilis was the cause, as he had searched in vain for any traces of syphilis in this case. The treatment from which the patient had received the greatest benefit was the use of cold applied by Lister's tubes.

NEW INVENTIONS AND IMPROVEMENTS.

SYRINGE FOR THE INJECTION OF VASELINE OINTMENT.

THE above engraving represents a glass syringe (manufactured by Messrs. Krohne and Sesemann, of 8, Duke-street, Manchester-square, W.) used by Mr. Bader, of Guy's Hospital, for the treatment of gonorrhœal, purulent, and other forms of ophthalmia. The object is to inject vaseline ointment beneath the upper eyelid, passing the nozzle beneath it close to the outer canthus. To charge the syringe, the piston is withdrawn and the ointment put into the tube with the finger or spatula. The widened upper end of the tube facilitates the entry of the ointment, and the manipulation of the syringe if rendered slippery by the ointment. The cost of the syringe in a case is only eighteenpence.

KEMMERICH'S EXTRACT OF MEAT.

MESSRS. ROCKWOOD AND CO., of 12, Long-lane, West Smithfield, E.C., have sent us samples of this extract of meat, which is prepared by E. Kemmerich and Co., at Santa Elena, South America. It is agreeable to the taste, and evidently prepared with great care. It is intended to be used for the preparation of soups, sauces, or jellies, and may also be now spread on bread or dissolved in port wine. The best beef, free from bone or sinew, is used in making it; it is nourishing, and will be found a convenient and stimulating preparation for convalescents requiring strengthening food.

ADEPSINE.

FROM Wilminghaus, Klinker, and Co., of 13, Hamsell-street, Falcon-square, E.C., we have received samples of "Adepsine," which is a product of a pure mineral nature, obtained by a new process from the coal oxides of petroleum. There are two varieties of Adepsine—one of a pure semi-transparent white colour, the other of an orange yellow. Both are good, but the white is the superior of the two, in quality, we think, as well as in appearance. They both possess in a high degree the valuable properties of the best vaseline; that is, they are absolutely neutral, they are not affected by light, they never become rancid, and they are inodorous and tasteless. They form excellent bases for compounding ointments; and are also of great service alone for softening and soothing the skin, and protecting it from the air. The white Adepsine is a particularly elegant preparation, and has the advantage of being of firmer consistency than vaseline. Adepsine oil is a colourless, inodorous fluid, and it also will not spoil or become rancid by keeping. The preparations may be strongly recommended. They are manufactured by Carl Hellfrisch and Co., of Offenbach-on-Main, under the direction of Dr. M. Fresenius.

WYLEYS' STANDARD ORGANIC LIQUORS.

MESSRS. WYLEYS AND CO., Coventry, have been led, in consideration of the liability of many crude drugs to vary in strength, to prepare "standardised" solutions of aconite, belladonna, colchicum, digitalis, ergot, nux vomica, cinchona, and a few other very important and constantly employed drugs. It is claimed for these liquors that they represent the entire remedial properties of the various drugs, that they are made from the best drugs, and that they are always uniform in strength, are capable of giving always the same physiological results, and are superior to mere solutions of alkaloids. The doses have been made uniform, from ten to thirty minims, and have been calculated from the corresponding preparations of the Pharmacopœia as to the amount of drug represented by the dose. The liquors will unques-

tionably be found very convenient and useful aids in dispensing, for there can be no doubt that, as regards many drugs, reliable standard preparations have long been things much needed. These "liquors" deserve to be called "elegant" in the true meaning of the word, and the reputation of the manufacturers gives sufficient guarantee of their purity and strength. They may be obtained in London from Messrs. Wyleys, Walker, and Co., 223, Upper Thames-street, E.C.

HIDES' PATENT MOULDED MILITARY AND GENERAL AMBULANCE.

Mr. Hides has, with great ingenuity, constructed a very light ambulance by availing himself of his well-known felt. The frame consists of two wooden poles and two cross-bars; and attached to this, by elastic springs and davits, is suspended a shell of felt, moulded to the back form of a well grown and nourished man; bands of webbing pass under the felt mould and take the weight and "wear and tear" off from the mould. The evident advantages of this stretcher ambulance are its lightness, and the increase of comfort and security afforded to all those whose figures fit at all nearly to the form of the felt mould: in such cases a sense of comfortable support is given that cannot be got from any webbing or canvas stretcher or hammock, and the head and limbs are guarded for the time as well as, or better than, they would be by splints. The various parts can be quickly separated, and the ambulance can be easily packed. How the felt mould will stand anything like rough work remains to be seen.

MEDICAL NEWS.

Royal College of Surgeons of England.—At a meeting of the Board of Examiners in Dental Surgery, held on the 25th inst., the following candidates, having passed their examinations to the satisfaction of the Board, were admitted Licentiates in Dental Surgery, viz :—

Albert, Henry Louis, Sloane-street, S.W., student of the Dental and St. George's Hospitals.
Andrew, John J., Belfast, of the Dental and Middlesex Hospitals.
Bate, Frederick William, Alexandra road, N.W., of the Dental and Middlesex Hospitals.
Cornelius, William Fryer, Teignmouth, of the Dental and Middlesex Hospitals.
Edwards, Richard, Pontdolgoch, of the Dental and Middlesex Hospitals.
Elston, John McKno Ackland, Exeter, of the Dental and Charing Cross Hospitals.
Gould, Horace John, Exeter, of the Dental and Middlesex Hospitals.
Hughes, Morgan, Redhill, of the Dental and Westminster Hospitals.
Jester, Alfred Horace, Preston Park, Brighton, of the Dental and Middlesex Hospitals.
Kissack, Frank Hill, Douglas, Isle of Man, of the Dental and Middlesex Hospitals.
Patterson, Wm. Todd, Kingsland, of the Dental and Middlesex Hospitals.
Royston, Jonathan, Douglas, Isle of Man, of the Dental and Middlesex Hospitals.

Thirteen candidates presented themselves for examination, of whom twelve passed to the satisfaction of the Board, and one was referred for the period of six months.

At the same meeting, Mr. John Cooper Forster, Vice-President of the College, the newly elected member of the Board, took his seat.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 19 :—

Jackson, Paul, Torrington, Devon.
Schön, Charles Henry, Bridge, Canterbury.

The following gentleman also on the same day passed his Primary Professional Examination :—

Morgan, George, Charing-cross Hospital.

APPOINTMENTS.

The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

MacGillivray, Charles Watson, M.D., M.B. and C.M., F.R.C.S., L.R.C.P. Edin.—Assistant-Surgeon to the Royal Infirmary, Edinburgh.

BIRTHS.

Beveridge.—On October 18, at Dart Villa, Totnes, the wife of H. T. S. Beveridge, M.D., Staff-Surgeon R.N., of a daughter.

Hammond.—On October 20, at Nuneaton, the wife of W. Hammond, L.R.C.P., of a son.

Hind.—On October 24, at 4, Whitehall-place, Stockton-on-Tees, the wife of Henry Hind, F.R.C.S., of a son.

Hutchinson.—On August 23, at St. Kilda, Melbourne, Australia, the wife of B. C. Hutchinson, M.D., of a son.

Jones.—On October 14, at North Park House, Harrogate, the wife of A. O. Jones, M.D., of a son.

MacNalty.—On October 16, at Colton Old Vicarage, Greenodd, Ulverston, the wife of Frank C. MacNalty, M.A., M.D., of a son.

Raven.—On October 19, at Broadstairs, the wife of Thomas F. Raven, L.R.C.P., of a daughter.

Raye.—On October 24, at Calcutta, the wife of D. O'C. Raye, I.M.D., of a daughter.

Smith.—On October 23, at 9, Phillimore-terrace, the wife of W. Towers Smith, M.R.C.S., of a son.

Staples.—On October 16, at Gibraltar, the wife of Surgeon-Major F. P. Staples of a daughter.

MARRIAGES.

Bothamley—Smith.—On October 14, at Lewisham, R. Broughton Bothamley, M.R.C.S., of Bromley, Kent, to Jeannetta Harrison, daughter of the late William Smith, Esq., of Southwark.

Jacob—Reed.—On September 13, at Chowbuttia, North-West Provinces, India, John E. Jacob, Lieutenant 1st Battalion South Lancashire Regiment (late 20th), eldest son of D. Jacob, M.D., of Maryborough, Queen's County, Ireland, to Harriet Maude, third daughter of William Power Reed, Esq., of St. Arvan's Court, Chepstow.

Kennedy—Hayle.—On October 17, at Rochdale, William A. Kennedy, M.B., L.R.C.P., son of the late J. F. Kennedy, M.D., of Newcastle-on-Tyne, to Sarah, third daughter of Thomas Hayle, M.D., of Rochdale.

Pinder—Priest.—On October 19, at Waltham Holy Cross, R. J. Percy Pinder, I.C.S., of Barraitch, Oudh, to Clara Elizabeth, eldest daughter of Arthur Priest, L.R.C.P., of Waltham Abbey.

DEATHS.

Anderson, William Alexander, M.D., at Wilton Lodge, Hillington, on October 22, aged 76.

Broughton, Francis, F.R.C.S., late of H.I.M. Medical Service, Bombay, at Ambleside, on October 14, aged 62.

Cock, Ann, wife of Frederick Cock, M.D., at 1, Westbourne-park-terrace, Porchester-square, W., on October 22, aged 58.

Edwards, Benjamin, M.R.C.S., L.A.C., at Stony Hill, Colebrookdale, on October 13, aged 67.

Greenfield, Evelyn Mary, second daughter of W. S. Greenfield, M.D., F.R.C.P., of Edinburgh, on October 18, aged 2½ years.

Hollis, William, M.R.C.S., at Alvaston, near Derby, on October 19, aged 76.

Lindsay, Florence, wife of John F. Lindsay, M.B., at 26, Great George-square, Liverpool, on October 13.

Pearce, George A. C., M.B., F.C.S., late of Dane's-inn, London, and Lee, Kent, at Cadiz, on October 5, aged 31.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

London Fever Hospital.—Resident Medical Officer. Salary £200 per annum, with residence, etc., without board. Candidates are requested to send in testimonials on or before October 31.

Macclesfield General Infirmary.—Senior House-Surgeon. Salary £100 for the first year, with an increase of £10 the second year, with board and residence. Candidates must be doubly qualified and duly registered. Applications, with copies of recent testimonials, to be addressed to the Chairman of the House Committee, on or before October 28.

North-West London Hospital, Kentish Town-road, N.W.—Ophthalmic Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and not practising midwifery or pharmacy. Applications, with testimonials, to be sent to the Secretary, Alfred Craske, on or before October 28.

Queen Charlotte's Lying-in Hospital, 191, Marylebone-road, W.—Two Physicians for the Out-patient Department. Candidates must be graduates in medicine of the United Kingdom, and Fellows or Members of the Royal College of Physicians in London. They will be required to attend the meeting of the Committee of Management at the Hospital on November 13, at 3 p.m., or they will not be eligible for election. Applications addressed to the Secretary, accompanied by copies of testimonials and original diplomas, will be received up to November 10.

Three Towns Friendly Societies' Medical Institution, Devonport.—Resident Medical Officers. (*For particulars see Advertisement.*)

Examination in Preventive Medicine.—Candidates for a certificate of proficiency in subjects bearing on Preventive Medicine and Public Health are requested to send their names to the Regius Professor of Medicine, Medical Department, Museum, Oxford, on or before Friday, November 10. No person can be admitted as candidate who has not obtained the degree of Bachelor of Medicine in the University.

The Examination for the Dental Licence.—The first meeting for the examination of candidates for the Licence in Dental Surgery of the Royal College of Surgeons for the present session was commenced on Monday last, the 23rd inst. The following questions were submitted to the candidates, when they were required to answer, from two till four o'clock, at least one of the two questions, both on

anatomy and physiology, and on surgery and pathology. Anatomy and Physiology: 1. Describe the mechanism of the joint of the lower jaw, and enumerate the muscles by which each of its movements is effected. 2. Describe the changes which take place in the heart during a single beat and pause of the pulse, and the sounds by which these changes are accompanied, indicating the causes of the latter. Surgery and Pathology: 3. What is meant by an "epulis"? What is the usual structure of such a tumour? and what treatment is appropriate for it on its original appearance, and on its recurrence? 4. What means have been devised for the treatment of the more complicated cases of fracture of the jaw, and under what circumstances is each of these advisable? The following were the questions on dental anatomy and physiology and dental surgery submitted to the candidates the same day, when they were required to answer at least two out of the three questions in each, from five to eight o'clock, viz.:—Dental Anatomy and Physiology: 1. What teeth are used as sources of ivory? Mention any peculiarities in the ivory derived from the several animals, especially in that which has been employed for dental purposes. 2. Write a short description of the development, minute anatomy, and chemical composition of human dentine. How is its sensitiveness explained? 3. Describe specimens 1 and 2 under the microscope. Dental Surgery and Pathology: 1. Name and briefly describe the tumours which have a dental origin. 2. Mention some of the diseases and constitutional conditions which most markedly affect the teeth. What lesions do they respectively cause? 3. What are the peculiarities of palladium, of Fletcher's and of Sulivan's amalgams, and of gold and tin foils used in coubination? What differences in manipulation do the first three respectively require?

APPOINTMENTS FOR THE WEEK.

October 28. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

30. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. C. Theodore Williams, "On a Case of Paracentesis Pulmonis." Dr. Leonard W. Sedgwick will communicate a paper by Dr. Richard Schmitz (Neuenahr), "On Six Hundred Cases of Diabetes Mellitus."

31. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

November 1. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Symes Thompson.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Norman Chevers, "On the Sanitary Defects of the Site of London and its Suburbs."

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Specimens will be shown by Mr. Alban Doran and others. Dr. Champneys, "A Description of a Kyphotic Pelvis; with Remarks on Breisky's Description." Dr. Matthews Duncan, "On Puerperal Diabetes." Dr. Chahbazian, "On the Treatment of Post-partum Hæmorrhage by Subcutaneous Injection of Ergotinine."

2. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

HARVEIAN SOCIETY, 8½ p.m. Mr. Malcolm Morris, "On Chronic Ringworm." Dr. Broadbent, "On some Points relating to the Sounds of the Heart."

3. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 21, 1882.

BIRTHS.

Births of Boys, 1209; Girls, 1149; Total, 2358.
Corrected weekly average in the 10 years 1872-81, 2700·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	736	708	1444
Weekly average of the ten years 1872-81, corrected to increased population ...	800·3	737·6	1537·9
Deaths of people aged 80 and upwards			47

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (uncorrected).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	6	17	4	2	...	4	...	4
North	905947	...	11	19	9	6	...	7	...	3
Central ...	252238	...	5	4	2	...	...	2	...	4
East	892738	...	9	20	3	8	...	7	1	5
South	1265927	3	14	28	10	8	1	12	.	18
Total	3816483	3	45	88	28	24	1	32	1	34

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·640 in.
Mean temperature	49·4
Highest point of thermometer	61·2
Lowest point of thermometer	42·2
Mean dew-point temperature	47·3
General direction of wind	Variable.
Whole amount of rain in the week	1·88 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 21, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Oct. 21.	Deaths Registered during the week ending Oct. 21.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr. Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2358	1444	19·4	61·2	42·2	49·4	9·66	1·89	4·80
Brighton	106595	58	40	19·0	61·0	43·5	51·0	10·56	4·98	12·65
Portsmouth ...	129916	87	54	21·7	...	...	...	...	...	...
Norwich	88821	52	24	14·1	...	...	...	...	...	...
Plymouth	74449	43	30	21·0	59·0	39·3	50·8	10·45	2·49	6·32
Bristol	210134	132	67	16·6	58·5	40·2	48·3	9·06	1·76	4·47
Wolverhampton ...	76756	50	27	18·4	57·0	38·5	45·5	7·50	1·03	2·62
Birmingham ...	408532	254	141	18·0	...	...	...	...	...	...
Leicester	126275	87	42	17·4	59·8	41·5	48·9	9·28	1·69	4·29
Nottingham ...	193573	168	56	15·1	59·2	40·1	47·2	8·44	1·14	2·90
Derby	83587	60	29	18·1	...	...	...	...	...	...
Birkenhead ...	86582	62	43	25·9	...	...	...	...	...	...
Liverpool	580377	375	276	25·7	56·6	42·5	47·3	8·50	0·98	2·49
Bolton	106767	59	28	13·7	53·7	43·1	45·7	7·61	1·50	3·81
Manchester	342211	228	147	22·5	...	...	...	...	...	...
Salford	184304	124	59	16·7	...	...	...	...	...	...
Oldham	115572	87	57	25·7	...	...	...	...	...	...
Blackburn	108469	68	37	18·1	...	...	...	...	...	...
Preston	97856	73	58	31·0	...	...	...	...	...	...
Huddersfield ...	83418	47	41	25·6	...	...	...	...	...	...
Halifax	74713	38	26	20·3	...	...	...	...	...	...
Bradford	200155	111	75	19·6	59·4	42·6	48·8	9·24	1·28	3·25
Leeds	315898	210	129	21·3	60·0	43·1	48·3	9·06	1·23	3·12
Sheffield	229516	217	116	20·8	58·4	39·0	47·1	8·39	1·44	3·66
Hull	158814	142	69	22·7	60·0	42·0	50·4	10·11	1·48	3·76
Sunderland ...	119065	98	78	34·2	65·0	44·0	51·0	10·56	1·04	2·64
Newcastle	147626	89	65	23·0	...	...	...	...	...	...
Cardiff	88724	61	47	28·3	...	...	...	...	...	...
For 28 towns ...	8468571	5468	3308	20·4	61·2	38·8	48·9	9·39	1·71	4·34
Edinburgh	232440	148	79	17·7	57·3	35·2	47·6	8·67	0·79	2·01
Glasgow	514048	369	218	22·1	...	...	...	...	...	...
Dublin	348293	165	150	22·5	59·0	30·2	47·2	8·44	0·58	1·48

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·64 in. The highest reading was 29·96 in. on Wednesday morning, and the lowest 29·23 in. by the end of the week.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

F.S.A.—There was formerly a hospital of Our Lady and St. Catherine at Newington, which continued till the year 1551, when the proctor, William Clevbrooke, being dispossessed of his home, was fortunate enough to obtain a licence to beg.

M.R.C.S.—The Museum of the College of Surgeons will not be re-opened for some time, but Professor Flower will be very glad to receive your valuable donation.

Lithotomist, Liverpool.—In 1627 the College of Physicians licensed James Moleyns—notwithstanding he was a surgeon and the leading lithotomist of his time, and held the special office of "surgeon for the stone" to St Bartholomew's and St. Thomas's Hospitals—to administer internal medicines in surgical diseases.

A Soothing Syrup: a Fatality.—The mother of a little boy, ten months old, administered twelve drops of a soothing syrup to relieve a cough. The child grew worse, and received medical treatment, but it died. The coroner held an inquest on the body. A post-mortem examination was made, which disclosed the presence of morphia in the stomach. Death was caused by a narcotic. The verdict returned was—"Death was due to a narcotic through misadventure," with the following rider—"That some restriction should be made on the sale of patent medicines which could be used as poisons."

More Football Accidents.—In a football match at Bolton, last week, one of the players, in attempting to stop the ball, received a kick below the knee which broke his leg. In another match in the same town a player was badly hurt, and carried off the field; and another, in the same game, was hort in the ribs.

Action for Heavy Damages against Medical Men at Greenock.—An action for £500 in damages for the death of a girl, against Dr. Gordon Cluckie, Surgeon-Oculist to the Greenock Ferguson Eye Infirmary, and Dr. Dobie, House-Surgeon in the Greenock Infirmary, was brought before the Greenock Sheriff Court and argued. The father of the girl, the plaintiff, alleged that his daughter died through the fault of the defendants. The girl, who was eleven years of age, was under treatment for a tumour in the left eye, and on May 26 last she was put under chloroform for the purpose of an operation. While the operation was proceeding she became sick, and shortly afterwards fell into a state of coma, and died in that unconscious condition. The averment of the plaintiff is that the fatality occurred from unskilful treatment. The defence is that every skill and care were exercised by the defendants, and that the death "was a thing which no human skill could foresee or prevent, and is a thing which often accompanies such operations."

Alfred Thompson.—The Rev. George Crabbe, the celebrated poet, was apprenticed to Mr. Page, a well-known surgeon, at Woodbridge, Suffolk. There are several clergymen in the Calendar of the College of Surgeons, as the Right Rev. Bishop F. T. M. McDougal, the Rev. Henry Arnott (both Fellows of the College), the Rev. C. May Empson, and others.

Inquests in Surrey.—The Finance Committee presented a report at the meeting of the county magistrates last week, with respect to the complaints which had been received from time to time as to the great delays that had arisen in holding inquests in both divisions of the county. After a deliberate consideration of the subject, the Committee recommended that a petition be presented to Her Majesty, praying that the county, for the purpose of holding inquests, might be divided; such division to take place on March 25 next. The recommendation was agreed to.

Mr. Johnson.—We believe that of the large number of Honorary Fellows of the College made in December, 1843 (the first list), only forty-three survive. Mr. James Moncrieff Arnott is the senior Fellow of the College, of which he was admitted a Member so long ago as April 4, 1817, and must therefore be at least eighty-seven years of age.

Three-Year Poor-Law Guardians: Official Order.—By an order of the Local Government Board, on and after April 15 next the elective guardians of the poor for the several townships in the Leigh Union will continue in office for three years.

London Fish-Supply.—The wholesale fish and poultry market, which the Great Eastern Railway Company have constructed under their large goods depôt at Shoreditch, has been opened for business. There was a very large supply of varied kinds of fish and poultry, which met with a ready sale to the trade.

Typhoid Fever, Paris.—Dr. Bertillon, the statistician of this city, anxious to obtain true statistics of the progress of the endemic, has appealed to his medical brethren to assist him, and given them facilities for doing so. To every doctor he has sent a pocket register—a *souche*—containing printed forms to be filled up in typhoid cases occurring in private houses, and sent to the statistical bureau of the Hotel de Ville. Not one in four has answered to Dr. Bertillon's appeal, so that only vague and uncertain estimates of the march of the disease can be made. The endemic has 'a particular affinity, to judge by the deaths and hospital patients, for youths and men in their prime. It is worse in barracks than els where.

A New Litany.—District Visitor: "Your boy looks very bad, Mrs. Jones; what's the matter?" Mrs. Jones: "Yes, ma'am, he be very bad; and, what's more, the doctor has made him worse. I'm sure we poor people ought to pray with all our heart, 'From all false doctorin', good Lord deliver us.' I never saw its meaning afore."

How False Death Certificates are Given.—Eliza Morrish, an elderly woman, described as a midwife, has been fined £5 and a guinea costs, under the Births and Deaths Registration Act, for unlawfully giving a false certificate of the death of a child. The child had lived nine days, and defendant gave a certificate that it was still-born. The defendant's respectability, and the fact that no charge had been brought against her during the eighteen years she had been a midwife, were urged on her behalf.

A Generous Gift.—The Committee of the Hastings Infirmary announce that the Misses Briscoe have generously handed over to them, to be appropriated as a convalescent home, a house at the rear of the institution, of the value of £6000.

The Excise and Non-intoxicating Beverages.—A case of some importance to the general public, and especially affecting those who encourage the use of non-intoxicating drinks, was heard before the Nottingham magistrates a few days ago. The Excise authorities—as a test case, this being the first in England—summoned a vendor of a non-intoxicating beverage, known as "Summers' Botanic Beer," for selling such beer without an ordinary licence. The evidence showed that no malt or hops were used, the beer being a product of a mixture of herbs and sugar only, and that there was less than 3 per cent. of pure spirit in it. The magistrates held that this was not beer within the Act, and dismissed the summons, but the Excise gave notice of appeal to the Sessions.

Evading By-laws, Gravesend.—A butcher of New-road in this town has been fined by the magistrates £3 and costs for not cleansing his slaughter-house according to the requirements of the borough by-laws.

A School of Cookery Diploma a Sine qui non.—At a meeting at Liverpool of delegates of the Northern Union of Schools of Cookery, resolutions were adopted to memorialise the Government that practical cookery instruction in elementary schools should only be recognised when given by teachers holding a diploma of ability to teach from some training-school of cookery; and that the teaching of practical cookery should be encouraged throughout the country, more especially in elementary schools and to the artisan classes.

A Prosperous Institution.—The ordinary revenue for the past year of the Dunoon Convalescent Seaside Homes has been £4563, and the ordinary expenditure £3801. The debt of £1043, which still remained on the new wing at the opening of the year, has been paid off by the bazaar, and there was a balance in hand of £2592. During the year £1600 was contributed by the working-classes.

COMMUNICATIONS have been received from—Messrs. J. and R. Douglass, London; Messrs. S. Low and Co., London; Mr. C. Lindfmann, Manchester; The Registrar of the Apothecaries' Hall, London; Dr. W. E. Steavenson, London; The Secretary of the Native Guano Company, Aylesbury; Dr. Douglas Powell, London; Dr. Norman Chevers, London; The Hon. Secretary of the Medical Society of London; Mr. J. Chatto, London; The Hon. Secretary of the Obstetrical Society of London; Mr. T. M. Stone, London; The Registrar-General for Scotland; The Hon. Secretaries of the Harveian Society, London; Dr. Bacon, Cambridge; The Hon. Secretaries of the Epidemiological Society, London; Dr. Henry C. Acland, Oxford; Dr. Armstrong, Newcastle-on-Tyne; Dr. Henderson, London; Mr. W. Watson Cheyne, London.

BOOKS, ETC., RECEIVED—

A Supplementary Catalogue of the Pathological Museum of St. George's Hospital, 1866 to 1881, by Isambard Owen, M.D.—Annual Report of the Society for the Suppression of Vice—On Preventive Medicine in its Relation to the General Practitioner, by J. W. Hobman, M.D., etc.—Report on the London Water-Supply—The Power of Judges to Punish for Contempt of Court—Publications du Progrès Médical—Meddelelser om Skarlagensfeber, af Aug. Koren Korpsbege—The Influence of Light on the Development of Bacteria, by J. Jamieson, M.D.—Report on the Parish of St. George, Hanover-square, for the Year ended March 25, 1882.—Dr. John Chapman's System of Neuro-Dynamic Medicine, etc., by R. O. Kinnear, M.D.—The Frog, etc., by A. Milnes Marshall, M.D., D.Sc., M.A.—Sabbatsberg Sjukhus i Stockholm for 1881—A Handbook of General Treatment for Coolies, by Charles J. Hancock, M.R.C.S., L.R.C.P., etc.—Cerebral Hyperæmia: Does it Exist? by C. F. Buckley, B.A., M.D.—Annual Report of the Trustees of the Willard Asylum for the Insane for 1881—Heilquellen-Analysen, von Dr. Friedrich Raspe

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Westminster Review—Students' Journal and Hospital Gazette—The Philanthropist—Medical News—Brain—Dublin Journal of Medical Science—Australasian Medical Gazette—Journal of the Scottish Meteorological Society—Hampshire Telegraph and Sussex Chronicle, October 18 and 21—Scienze Mediche—Morningside Mirror—Detroit Lancet—New York Medical Journal, etc.—Daily Telegraph and Deccan Herald, October 5—Journal of Anatomy and Physiology—New England Medical Monthly—Philadelphia Medical News—Sunday at Home—Friendly Greetings—Leisure Hour—Boys Own Paper—Girl's Own Paper.

OPENING ADDRESS ON SOME OF THE RELATIONS OF METEOROLOGICAL PHENOMENA TO MAN.

Delivered at the Society of Medical Officers of Health, October 20, 1882.

By JOHN W. TRIPE, M.D., etc.,
President of the Society.

ALTHOUGH this subject has received much attention for many centuries, especially from Hippocrates and numerous other eminent physicians since his time, yet it was impossible for these writers to arrive at any reliable results until some legislative enactments had been made for the compulsory registration of deaths. Still, it must not be supposed that in this country a fair approximation to the truth could not have been arrived at long before the Registration Act came into force, because the percentage of total deaths entered in the parochial registers appeared to have varied but little in different years. The numbers were, however, only approximative; indeed, as I mentioned in my last inaugural address, Mr. Rickman stated, as the result of carefnl inquiries, that about one-sixth of the total burials were not returned by the parish clerks. It would, therefore, lead to very erroneous conclusions, if we were to compare the deaths registered under the different orders and classes now, with those published during the last century, not only on account of the imperfection of the returns, but because of the improved means of diagnosis that we now possess. Even now, however, there is plenty of room for improvement, as many deaths are registered on the statements made by unqualified medical practitioners, nurses, and the nearest relatives of the deceased who were present at the death. Some stringent action should be taken to reduce the number of deaths thus registered, especially of young children. There are also other reasons for some allowance being made, if strict accuracy be reqnired, because the assigned causes are often insufficient to have produced death, or because they were evidently returned as a cover for something to be hidden. In large numbers of deaths these errors do not much interfere with the results, especially if the investigation be one of a comparison of deaths from similar causes in several years, as the percentages of such registrations probably do not vary to a marked extent in different years. I feel, therefore, that we are treading on tolerably firm ground when we compare variations of the weather with mortality returns, due allowance being made for certain disturbing causes which will be mentioned in another part of my address.

I do not propose discussing the effects of all meteorological phenomena on man—in the first place, because the subject is much too large for an address; and, secondly, because sufficient data are wanting for a complete inquiry into the subject. I shall not enter into the effects of climate (although it will be advisable to refer to some of the causes of different climates), because this word includes not only all the meteorological elements which are classed together under the term "weather," but also the physical peculiarities of the locality in question, such as its nearness to large surfaces of water and to swamps; the nature of the soil, the configuration of the ground, and the extent of forests and other vegetation which modify the climate of a place to a very great extent. Indeed, alterations in the proportion of land covered with water and forests have changed the climates of many countries to such an extent as to have rendered lands once fertile and healthy almost uninhabitable, or to have made unhealthy or sterile some localities which were formerly healthful and fruitful.

The part played by oceanic currents in making the climate of England temperate and pleasant, instead of being almost unendurable, and, indeed, of causing this earth to be habitable over a great part of its surface, is scarcely sufficiently recognised. I trust, therefore, that I shall be excused for referring briefly to this subject, which has been admirably treated in Croll's "Climate and Time." This writer, who is one of the most trustworthy on this subject, and who has very deeply investigated it, says that if the heat derived from the Gulf Stream were taken away from the North Atlantic, the surface-water would have a temperature of minus 3°, or 35° below freezing point; that the heat hourly dispersed from the stream would be able, if applied to steam-engines, to develope as much power as would be used by nearly four hundred millions of our largest iron-clad steam-vessels. Part of this heat is used in raising the temperature of the oceans through which the stream passes, and part is absorbed by the air overlying the water, and carried by south-westerly winds over a large proportion of our own country, and the north-western parts of Europe. The capacity of water for heat is very much greater than that of air, as the amount of heat which would raise a cubic foot of water only 1° Fahr., would raise the temperature of 3234 cubic feet of air to the same extent. We cannot, therefore, be surprised at the great influence assigned to oceanic currents by Croll. Indeed, it is chiefly through the heat given out by the Gulf Stream that we have in this country green fields and unfrozen harbours during the depth of winter, whilst New Brunswick, Newfoundland, and Labrador, which are nearly in the same latitude as England, but away from the influence of the Gulf Stream, are covered with ice and snow during a considerable portion of the year.

Having made these preliminary remarks, I will now pass on to consider the proper subject of my address, viz., the relations existing between man and variations of atmospheric pressure, temperature, and humidity, as well as their influence on disease and death; and shall also briefly allude to the effects of winds, ozone, and electricity on the inhabitants of this country.

Barometric Pressure.—The influence of variations in the atmospheric pressure, at moderate heights or depths above or below mean sea-level, is by no means very marked, except secondarily, as when diminished pressure assists in causing explosions in collieries, or the escape of ground-air into houses; but at considerable elevations, such as at 8,000 feet or more above sea-level, the effects are very decided on most persons. It was at one time considered that much of the discomfort felt on high mountains was occasioned by the expenditure of force in ascending to these heights; but the experience of those who have made ascents in balloons, or who have temporarily lived on high mountains, show that this is erroneous. The sensations felt at great elevations, which are popularly known as "mountain sickness," are very unpleasant, as I can personally vouch for. These may be briefly summarised as follows:—Great feeling of malaise; shortness of breath; much loss of strength; palpitation of the heart; nausea on making very slight exertion, such as taking a few steps up the mountain-side; with more or less giddiness and noises in the ears, even when not moving about. I suffered from these symptoms, during the ascent of a mountain, at about 10,000 feet and above, but they ceased on reaching the top and keeping myself still, showing that exertion had little to do with them. Some persons suffer much more than others, but after a time nearly all become acclimatised, and capable of taking exercise without unpleasant feelings, as well as of carrying on their ordinary avocations with comparative comfort.

The sensations experienced by Mr. Glaisher during one of his balloon ascents, when he attained a greater height than anyone else has been known to reach, except his companion Mr. Coxwell, may be epitomised as follows. At an elevation of 29,000 feet, when the barometric pressure equalled nine inches and three-quarters of a column of mercury, or less than one-third of the pressure at starting, he noticed that he became unable to distinguish the fine divisions on any instrument, the column of mercury in the wet-bulb thermometer, or the hands of a watch. Shortly after, he laid his arm upon the table, and immediately lost all power to move it, and trying to move the other arm he found that powerless, but was able to shake his body. His head then fell backwards, and he saw Mr. Coxwell in the ring of the balloon. The ability to speak next left, and then total loss of sight occurred, although the brain remained as active as ever. Total unconsciousness quickly ensued. He believes that five minutes elapsed from the first failure of vision to the supervention of total unconsciousness. The first return to consciousness was noted by his indistinctly hearing Mr. Coxwell say "instruments," "observations," after which he gradually regained his sight. Similar sensations occurred in myself whilst inhaling protoxide of nitrogen at a dentist's, as I first lost the sense of hearing, then of sight, and lastly consciousness, which latter returned perfectly before sight or hearing, so that I felt as if I must die unless the pressure were removed

from my chest. I knew that I was unable to see, move, or speak. Mr. Glaisher believes the balloon to have reached an elevation of 36,000 or 37,000 feet during his unconsciousness, but it is noteworthy that Mr. Coxwell at no time became insensible or unable to move. At 19,000 feet, during his first ascent from Wolverhampton, Mr. Glaisher noticed increased rapidity of pulse (100 beats per minute), palpitation, increased sensibility to sound, and difficulty of breathing, followed at 21,800 feet by a feeling like sea-sickness. In other ascents these are not mentioned until an elevation of nearly 24,000 feet had been attained. Many other aëronauts have ascended to an elevation of 23,000 or 24,000 feet without any symptoms of "mountain sickness." The symptoms felt by aëronauts prove that great muscular exertion is not the chief cause of the attack.

The ordinary effects observed amongst those who reside on elevated mountain plateaus are said to be increased rapidity of the pulse to the extent of fifteen to twenty beats per minute; quickened breathing varying from eight to twelve or even fifteen respirations per minute; increased evaporation from the skin and lungs; diminished secretion of urine; and lessened spirometric capacity of the lungs. The diminution in the quantity of the urine is often very marked, even amongst tourists in the high alps.

The question now arises, Do the symptoms described depend simply on diminished pressure, or on the diminution of oxygen in the air breathed? Late investigations of M. Paul Bert have confirmed the opinions of MM. Lombard, C. Martin, and Jourdanet, published in 1861, that all these symptoms, as well as those known as mountain sickness, are chiefly due to the diminution of oxygen in the air inspired, and consequently in the blood. Absolute experiment has shown that the blood of unacclimatised persons contains less oxygen at great than at ordinary elevations. Examinations of the blood of those who have become acclimatised, and especially of persons born and living in elevated regions, show that haemoglobin has increased in amount, and consequently that the capacity of the blood for oxygen has correspondingly increased. Examinations have also been made of the blood of pigs, sheep, stags, and other animals living at elevations of more than 12,000 feet, and have shown that the blood of acclimatised animals has a much greater capacity of absorbing oxygen than that of unacclimatised animals, amounting in some cases to nearly double the normal amount.

M. Gavarret believes that other causes have to be taken into account in the production of "mountain sickness," especially the imperfect exhalation of carbonic acid from the lungs, and its consequent accumulation in the blood; and I am inclined to this opinion by the identity of the symptoms felt by Mr. Glashier at an elevation of 25,000 feet, with those noticed by me when under the influence of protoxide of nitrogen. At any rate, it is clear that the effets described cannot depend wholly on diminished pressure, but that they are produced by several co-existing causes.

I would also point out that there are other atmospheric conditions in elevated localities, which, to a certain extent, modify the effects of the diminished amount of oxygen contained in the air. These are the great dryness of the atmosphere, the fierce heat of the sun's rays, and the great cold on snowy mountains, which, to a slight extent, counteracts the effects on the oxygen of diminished pressure, but which also necessitates a greater consumption of oxygen to keep up the temperature of the blood. M. Jourdanet states that the chemical changes which take place in the blood during its oxygenation are less marked amongst the inhabitants of "climates of altitude," such as the high table-lands of Mexico, and also that all the vital functions are more feebly performed. He also says that the inhabitants of these regions have less muscular strength and power of resisting disease than the residents in countries of lower elevation.

The influence on man, and especially on invalids, of diminished atmospheric pressure and of the lessened amount of oxygen inhaled at moderate elevations—say of 5000 feet above sea-level and under—has been much considered of late, but as yet sufficient time has scarcely elapsed to efficiently test the results. I will therefore merely say that great benefit has in some cases accrued to consumptive persons from a winter residence at Davos Platz, and some other places having an elevation of about 4000 feet or a little more above sea-level, whilst in other cases but little good has resulted from the change of residence. The experience of those who have lived on elevated plateaus is that phthisis is extremely rare in these regions, and other investigations go to show that moisture in the air of elevated regions modifies its beneficial action. If the observations made on the bacteria of phthisis be correct, it is clear that the extreme cold, as well as the diminution of oxygen, has had something to do with the improvement manifested in some patients. The more rapid and deep breathing rendered necessary by the lessened quantity of oxygen taken in at each breath seems also to assist in the cure. Neuralgia, gout, rheumatism, and most anæmic affections are said by Dr. Hermann Weber to be more or less completely removed by a residence in the high alps. This scarcely seems to be due to atmospheric causes only, as these affections are very prevalent amongst the residents of some elevated valleys of Switzerland, where bad water, dirt, and impure air in and around their dwellings are commonly met with, and counteract any good which the afflicted inhabitants might have derived from living at a moderate elevation above sea-level. A sudden diminution of atmospheric pressure is likely to assist in the escape of ground-air from the soil, and therefore lead to injury to health.

As regards the effects of *increased* barometric pressure, I have but little to say, but it is most probable that the increased feeling of bodily comfort which we often experience when the barometer readings are unusually high on several consecutive days, is most probably due to the dryness of the air, the direction of the wind, and absence of changes in the electrical state of the atmosphere, rather than to the increased quantity of oxygen inhaled at each breath. On the other hand, the depression and nervous debility so often noticed in this country with low barometrical pressure probably depend on the direction of the wind (usually S.W.), the excess of moisture in the air, and a disturbance in its electrical condition. When a feeling of exhilaration is noticed at these periods, I believe it will be found that much ozone is present in the air. When pressure is increased, either in diving-bells or by compressed air, to the extent of one and a half or two atmospheres, the pulse becomes reduced about ten beats per minute, the respirations slightly reduced in frequency, slight singing in the ears, the urine is increased, and the appetite improved. At greater pressures all these symptoms become more marked, headache often being severe, followed occasionally, on the increased pressure being removed, by semi-paralysis, hæmorrhages, and even persistent nervous affections.

Temperature.—As regards this element of our inquiry, I may say that experience has shown that, provided man can obtain proper clothing, food, and protection from the weather, he can live and propagate his species in any climate of this globe. The effects of high temperature vary very much according to the hygrometrical state of the air, as, when the heat is great and the air saturated, or nearly so, with moisture, languor and malaise are felt, often to such an extent as to render every kind of bodily labour most unpleasant; whilst the same or a higher temperature with a dry air does not ordinarily produce very depressing effects. The cause is evident: in the former case there is but little evaporation from the skin, and less than the normal amount of moisture is given off from the lungs, so that the cooling of the body by the evaporation of moisture which ordinarily occurs does not take place, and effete matters, which should be carried off by the skin and lungs, accumulate in the system until they are eliminated by other organs. In this way sunstroke chiefly happens, as under these conditions the temperature of the blood becomes increased, occasionally rising as high as 110° or 111 Fahr., when the myosin of the blood probably undergoes an alteration, preparatory to coagulation, which takes place at 113° Fahr., when the involuntary muscles, as well as the nervous centres, become also injuriously affected.

The effects of temperature on man do not depend so much on the mean temperatures of the months and year as on the extent of range. For instance, when the day temperature is high and the night temperature is comparatively low, the cold at night assists in procuring refreshing sleep, and restoring the energy of the system which the heat had reduced. The vicinity of the sea and of high mountains also diminishes the injuriousness of a hot climate, as they induce aërial currents every night and morning, by their cooling effects on the overlying or circumambient air. In this country a great diurnal range of temperature is often injurious, as during the heat of the day in summer only light clothing is

frequently worn, so that when cold sets in during the evening, or a sudden lowering of temperature takes place in the day, a chill is often experienced, followed in many cases by catarrh, pneumonia, or neuralgias.

It is commonly believed that a hot climate is necessarily injurious to Europeans, and shortens their lives considerably; but the evidence obtained from the statistical returns of our European Army in India show that sickness and death have been reduced to a large extent by the better barracks, good sanitary arrangements, modified dress, and more careful diet which now obtain in our Army. The well-known marches to Delhi and Lucknow, during the Indian Mutiny, and even the late forced marches in Egypt, show that exposure to the mid-day sun may sometimes not cause more sickness than a similar march in England. Planters and others in India, who ride about a good deal every day, and frequently in the sun, usually enjoy good health, provided the sanitary arrangements in and around their residences are good, and especially if their water-supply is uncontaminated by organic matter. There can, however, be but little doubt that a long continued residence in hot climates is more or less injurious to Europeans, as their children usually have comparatively feeble frames and lessened vitality, unless sent in childhood to a temperate climate.

These characteristics are also more markedly shown in the next generation, so that, unless crossed with native blood, the race dwindles away, and eventually dies out. In cold climates the reverse occurs, as the change even from England is usually attended with better digestion and improved vitality; whilst in very cold or even arctic climates the vigour and strength of Europeans are not impaired if plenty of food, good clothing, and sufficient protection from the weather can be obtained. One reason for this is that during the winter there is but little wind in very cold climates.

Dr. Parkes, at page 431 of his work on Practical Hygiene, makes some very pertinent remarks on the influence of great heat on those who were born in temperate climates. He says that, as yet, no sort of answer has been received as to the influence of high temperature on a race dwelling generation after generation on the same spot. "Does the amount of heat *per se*, independent of food and all other conditions, affect the development of mechanical force and temperature, and the coincident various processes of formation and destruction of tissues? Is there a difference, in these respects, on the resulting action of the eliminating organs in the inhabitants of the equator and of 50° or 60° N. lat.? This is certainly a problem for the future.

During a voyage round the Cape to India, Dr. Becher made some very careful observations on the temperature of his body, and found that, for each increase of 1° in the mean daily temperature of the air, there was an increase in the temperature of his body to the extent of one-twentieth of a degree. Rattray has also shown that, whilst the number of respirations per minute decreased in the tropics, the quantity of air contained in the lungs increased. It is also well known that evaporation from the skin is increased about 25 per cent., taking one day with another, whilst the quantity of excreted urine and of urea is lessened; that digestion is often impaired, and the average number of pulsations of the heart diminished by from three to four beats per minute.

In torrid zones, not only do all the ordinary diseases of temperate climates exist, but diseases of the liver, pulmonary phthisis, fever, cholera, and dysentery prevail to a very great extent, and carry off large numbers of the population. Most of these appear to depend partly on bad food and water, as well as on imperfect sanitary arrangements. In cold climates, pulmonary phthisis is also one of the most prevalent diseases, probably owing to the bad ventilation of the habitations, especially in winter.

Variations in the pressure and temperature of the atmosphere exert a considerable effect on the circulation of air contained in the soil, which is called ground-air, and as all the interstices of the ground are filled with air, the more porous the soil, the greater is the quantity of contained air. The quantity is sometimes greatly in excess of what is commonly believed, as Professor Hartley states that it has been shown that the bulk of a gravelly soil consists of about one-third air, whilst Pettenkofer says that it varies ordinarily between 3 and 10 per cent., and occupies the space between the stones and particles of sand. If a cesspool or leaky drain-pipes are placed in this kind of soil, offensive emanations will be given off. These may, especially under variations of temperature and pressure of the air, travel a rather considerable distance, and make their way into houses, especially when the air of a house is raised by fires to a much higher temperature than that of the ground. Dr. Fyffe mentioned an instance where the foul air of a cesspool was drawn a distance of twenty-seven feet into a house. Ground-air must also escape from the soil more quickly when the atmosphere is much warmer than the soil, or when a considerable diminution of barometric pressure suddenly occurs. It is, therefore, important that houses built upon gravel, and especially on made ground, should have the whole of the surface inside the walls covered with six inches of concrete to prevent the entrance of ground-air. Ground-air consists chiefly of atmospheric air intermixed with carbonic acid, marsh gas, and occasionally sulphuretted hydrogen. If there be any putrefying organic matter in the soil, the ground-air will also be contaminated with injurious gases resembling sewer emanations.

The ground-air is also displaced by rain, which raises the level of the ground-water, and also causes a rapid escape of air from the interstices of the soil. Winds, by their drying action on the surface of the soil, also assist in producing movements in the ground-air and in the level of ground-water. Fevers, cholera, diarrhœa, and dysentery are said to be caused by the escape of ground-air into houses.

The direct action of *Rain* upon the human body is not very marked in England except by inducing colds, but in hot climates it is believed to be an active cause of dysentery and malarial fevers. Rain does not directly act to any great extent on the atmosphere, except by absorbing ammonia, organic matters, acid, and empyreumatic vapours, as but little moisture is given off during its passage through the air. The humidity of the air depends chiefly on the amount of evaporation that occurs from the sea, soil, and vegetation. Rain, however, exerts a great influence on the moisture contained in the soil and on the ground-water, and thus affects materially the well-being of man, as it is found that when the ground-water has persistently a level of only five feet or less from the surface the locality is unhealthy, and when it is more than fifteen feet it is, *cæteris paribus*, healthy; also that a fluctuating level, especially if the changes are sudden and great, generally leads to ill-health amongst those residing on the spot.

It has been pointed out that outbreaks of typhoid fever have frequently occurred soon after heavy falls of rain succeeding drought, which are believed to have originated from the infectious particles of typhoid excreta being washed into wells used for drinking. Endemics of scarlet fever have also been traced to well-water which has been thus contaminated. The distance of the level of ground-water from the surface varies very much more in hot than in temperate climates, owing to the difference in the rainfall. Thus, in India during the rainy season, the ground-water level in the same locality is only a few inches, whilst in the hot season it is as much as seventeen or eighteen feet below the surface. The effects of rain depend very much on the soil. On clayey ground rain produces a much greater degree of saturation of the atmosphere than in porous soils, as well as a higher level of ground-water, causing dampness of the basements of houses. Decomposition of organic matters in the soil is also hastened, especially in hot weather, by heavy rainfall, with consecutive injury to health. Colds and coughs, rheumatism, heart disease, neuralgia, and, in hot climates, fever, are the affections most frequently found in these localities. The effects on the lungs of damp ground have been well shown by one of our former Presidents, viz., Dr. Buchanan, in his reports to the Medical Officer of the Privy Council in 1866-67. He stated that phthisis, using the word in its most extended sense, occurs more frequently on a damp than a dry soil, and numerous reports have since then been published, showing that effective drainage of the land, and consequent rapid carrying away of the rain-water, has been followed by a diminution in the mortality from these diseases. Pettenkofer and Seidel also pointed out the relations between outbreaks of typhoid fever and the rise and fall of the ground-water, the greatest mortality at Munich from this fever having occurred when the ground-water was lowest, and therefore after periods of drought. These observations, however, have not been confirmed in England; indeed, Dr. Buchanan thinks that the relations between the height of the ground-water and the prevalence of typhoid fever at Munich depended upon the greater impurity of the

drinking-water which was derived from wells. In any case, it is almost certain that some specific germs must have found their way into the well-water, and thus caused the outbreak. Pettenkofer holds similar opinions as regards cholera.

Varying conditions in the *Humidity* of the air naturally affect the comfort and well-being of man. It is not so much the absolute as the relative humidity of the air with which we are concerned; that is to say, the proportion of moisture which the air holds as compared with what it is capable of holding, saturation being represented by 100. This varies according to the temperature. For instance, one cubic foot of air, when saturated with aqueous vapour, contains, at 40° Fahr., 2·86 grains of water; at 50° Fahr., it holds 4·10 grains; at 60° Fahr., 5·77 grains; at 70° Fahr., 8·01 grains; and at 90° Fahr., as much as 14·85 grains. With a temperature of 70° Fahr. and 75 per cent. of saturation, evaporation from the skin proceeds rapidly, especially with air in motion, although the atmosphere contains more moisture than when saturated at 60° Fahr. With a saturated atmosphere there exists a tendency towards a rise in the temperature of the body, especially in warm climates, causing a most oppressive feeling of malaise. Warmth and excessive humidity are, however, less injurious to man than a low temperature with great humidity, unless there be a stagnant state of the air with the former, when intermittent fevers, dysentery, and other tropical diseases are usually prevalent, and the feeling of lassitude is almost unbearable. This feeling is particularly noticeable in the zone of calms.

As regards the effects of *Winds* on the body, I have already referred to their cooling action by causing increased evaporation. Strong cold winds abstract heat by their direct action, and are therefore injurious in very cold climates, where, however, they are comparatively rarely met with. Their cooling effects depend on the temperature, hygrometrical condition, and velocity of the wind, so that I cannot assign any special value to winds in England, and will only say that rheumatism, colds, and neuralgias are frequent during the prevalence of easterly winds, whilst a feeling of increased bodily vigour is generally noticeable with northerly and north-west winds. The affections mentioned, however, do not depend merely on the temperature and motion, but on the varying amounts of moisture which winds contain according to the surfaces they have passed over before reaching our shores.

Wind influences to a considerable extent all the other meteorological phenomena. For instance, the pressure of the atmosphere, and the temperature, depend partly on the direction of the wind, as winds from the north are usually accompanied by a high state of the barometer, and in winter with a low temperature. We must also remember that equatorial winds bring warmth from the equator, whilst polar winds bring cold to warmer climates. The humidity of the air also depends partly on the wind, that is to say, that it varies considerably according to the surface, whether of water, earth, ice, or sand, over which it has passed. It is also well known that the largest amount of rainfall occurs in this country when the wind blows from the south and south-west, and especially from the latter quarter. As some statistical information on this point may be interesting, I append a table, which I have calculated from a paper by Mr. Strachan,(a) to show the proportionate number of observations on 3148 days upon which rain fell with different winds, and another from a paper by Mr. Glashier,(b) showing the number of hours during which the wind blew from different points of the compass during 8765 consecutive hours.

Wind.	Percentages of		No. of hours during which the wind blew.
	Observations with rain.	Observations without rain.	
N.	6·5	10·0	9·4
N.E.	12·3	10·5	11·6
E.	10·1	12·3	6·9
S.E.	4·9	3·7	6·5
S.	14·2	7·2	7·3
S.W.	30·5	17·2	31·2
W.	15·7	25·7	14·3
N.W.	4·9	10.3	6·4
Calm	0·9	3·1	6·4
	100	100	100

(a) *Proceedings of the Meteorological Society*, 1870.
(b) *Quarterly Journal of the Meteorological Society*, vol. i.

We see from this that out of 100 observations of wind with rain, in 44·7 instances the wind was south or south-west; that out of 100 observations of wind without rain, the wind came on 42·9 occasions from the same quarter; and from Mr. Glaisher's table that the wind blew from the south and south-west 38·5 hours out of each 100 hours during the ten years 1861-70.

Ozone.—Although a great deal has been written on the effects of ozone on man and some of the diseases from which he suffers, yet but little is really known concerning it. This constituent of the air is augmented by violent winds, and especially by thunderstorms, and is met with in England chiefly at the seaside and in country places, including the outskirts of cities, and but rarely in the centre of cities. About twenty-five years ago, Mr. Burge, of Fulham, and myself made daily ozonometrical observations with the corresponding halves of ozone-papers, and we found that when ozone was met with at Fulham there was none at Hackney, and *vice versâ*, owing to the ozone being destroyed by passing through the air of London. It must not, however, be taken for granted that the change in colour of the ozone paper always depends on ozone, as any oxidising gas will have the same effect. For instance, the deepest tint I ever saw on my ozone papers occurred on the night of the Peace rejoicings, when a large quantity of fireworks was let off about a mile from my station, the wind blowing from the place where the fireworks were let off. Mr. Glaisher also stated in his report on the cholera epidemic of 1848, printed in the Registrar-General's report, that ozone disappeared during the prevalence of this disease in London, but was again observed on its decline. Excess of ozone was stated by Schönbein to induce a tendency to diseases of the lungs, and especially to phthisis, but subsequent observations have not confirmed this statement. There is, however, but little doubt that it exerts an active oxidising action on the organic matter contained in the air, and is, therefore, usually absent in close, confined places, where the air contains excess of organic matter. Also that, when in excess, it causes a feeling of comfort, especially in those not accustomed to inhale an atmosphere containing much ozone.

Having thus considered that part of my subject which refers to the general effects of meteorological phenomena on man, I shall now allude with great brevity to their relations to some of the individual diseases with which man is afflicted. The obstacles to which I referred in my preliminary remarks as preventing the physicians of olden times accurately determining the relations between atmospheric vicissitudes and disease, were more insuperable when the attempt was made as regards special diseases. Even in more recent times, Sydenham, after bestowing much time and consideration on the subject, concluded that his time and trouble had been lost. Van Swieten, after keeping a record of barometrical and thermometrical readings for ten years, arrived at the conclusion that he was no wiser as to the effects of atmospheric variations on epidemic diseases than when he began. Ramazzini, after devoting considerable time and labour to the matter, said that he could see no constant relations between the changes of the atmosphere and disease, and was as ignorant as ever at the termination of his work. And the same may be said as to the investigations of Huxham and many others.

I do not propose to discuss the manner in which these and other observers attempted to solve the question, but it is evident that if we desire to obtain reliable results, the subject must be attacked in a systematic manner, and that one or more elements of the inquiry must be uniform and definite. For instance, if population be taken as a basis, corrections must be made for increase or decrease. The usual plan is to take the two last censuses as a basis; but these should be checked, if the locality under discussion be small, by ascertaining the number of new houses erected, or of old dwelling-houses converted into offices or warehouses or pulled down during the period under consideration. This can be ascertained from the rate-books. Again, the condition of the population has to be considered. For instance, the death-rate from small-pox in 1871-80 amongst the poorer residents of Hackney, excluding those living near the Homerton Hospital, was 1·60 per 1000, against only 0·21 amongst the richer classes. The meteorological conditions under which they lived were the same, but other circumstances caused this great difference. It is, therefore, clear that poverty and its surroundings must be taken into con-

sideration when limited areas are under investigation. The mean age of the residents of small districts must also be considered. If, however, we take all London, the probability is that our conclusions, after allowing for increase of population, will be sufficiently correct, as, although the population is always increasing, yet the proportions of rich and poor, and of the working and other classes, remain comparatively unchanged.

Other important matters for consideration are the initial periods we should take for the inquiry, and the time we should allow to elapse after the occurrence of the weather discussed, and the registration of disease or death. As there is not a sufficiently extensive record of disease ready for our use in London, the inquiry is usually limited to the deaths. If we are comparing meteorological observations with deaths from summer diarrhœa, the interval between the two should be shorter, say, than that for scarlet fever. Again, as regards the last-named disease, the duration of illness varies much in different epidemics according to the prevailing complications. Thus, in the epidemic of 1848 in London, which I specially investigated, there was an unusually large percentage of deaths from dropsy at a late period of the disease. This can scarcely be allowed for, and will not modify the conclusions to any appreciable extent if the investigation be spread over several years.

In the Registrar-General's annual summary for 1880, it is stated that the highest mortality from summer diarrhœa corresponds with the week of highest temperature; whilst the greatest mortality from inflammatory diseases of the respiratory organs is registered three weeks after the minimum temperature.

The next matter for consideration is the number of the meteorological elements which we should embrace in our inquiry. Usually, as being the most potent of all, the effects of temperature alone are discussed; but, as we have shown that other meteorological phenomena affect the human body as well as temperature, it is quite clear that if we limit ourselves to this one element of inquiry, all we can say is that the mortality from a certain disease decreased or increased as the temperature rose or fell. Is this enough? Scientifically it is not, but for practical purposes it may be sufficient.

I trust that I shall not appear egotistical if I refer to some papers I have published, on what has been termed Medical Meteorology. The first of these appeared in the *Medical Times* in 1848-49, when I very carefully investigated the relations between the mortality from scarlet fever and meteorological phenomena—that is to say, temperature, humidity, and varying electrical states of the air,—and arrived at the following conclusions. Firstly, that a mean monthly temperature below 44·6° is adverse to the progress of scarlatina; whilst a mean temperature above 44·6° is coincident with an increase in the mortality from the disease. Secondly, that the greatest mortality from scarlatina occurred in the months which had a mean monthly temperature above 44·6°, and below 57·0° Fahr. Thirdly, that during the nine years 1839-48 the greatest increase in the mortality of one month, as compared with that of the next, happened when the mean monthly temperature was the same as that just mentioned; and the greatest decrease in the comparative monthly mortality happened when the mean temperature of the month was below 40·0°. Fourthly, that the increment in the mortality did not occur in the same ratio with the increase of temperature, nor did the diminution in the temperature correspond with the ratio of decrease in the number of deaths, but the closest correspondence occurred in the months of December, January, and February, when the mean monthly temperature was 40·0° or below.

As regards the effects of humidity on scarlet fever, I found that the comparative mortality was, with the exception of the month of March, lower in those months in which the degree of humidity was above the average of the month. In March there was a higher comparative mortality when the humidity of the atmosphere was *plus* than when it was *minus*. These results are shown in detail in the following table:—

	Comparative mortality, humidity of the air being	
	plus.	minus.
January	57	58
February	91	100
March	90	83
April	80	90
May	108	120
June	106	137
July	112	121
August	105	109
September	114	140
October	120	121
November	85	99
December	77	77

By comparative mortality, I mean the mortality of one month compared with that of the preceding—say of February with that of January, which would be termed the comparative mortality of February.

As regards *Electricity*, I found that when frequent indications of its existence were manifested the comparative mortality from this disease was below the rate for those months in which it was in an almost passive condition. I therefore concluded that an active state of the electricity of the air tended to diminish the spreading of scarlatina.

In another paper, read before the Meteorological Society in 1859, and published in their report for 1859-61, I referred to the connexion between meteorological changes and the mortality from inflammatory diseases of the lungs, diarrhœa, and phthisis; and in a subsequent paper published in 1862, which was read before the same Society, I gave the percentage of deaths from "all causes," "inflammatory diseases of the lungs," "fever," and "diarrhœa," during the three years 1859-61. The following table gives a summary of the results, and shows that the results then obtained correspond with those of later inquirers:—

Percentages of Deaths in the Metropolis, 1859-61.

	Mean weekly temperature.								
	Below 35°	35° to 40°	40° to 45°	45° to 50°	50° to 55°	55° to 60°	60° to 65°	65° to 70°	70° to 75°	Total.
All causes	14·2	11·9	11·3	9·8	9·3	8·9	9·7	11·0	13·9	100
Respiratory organs	25·8	17·8	14·8	11·9	8·3	6·5	5·4	4·5	5·0	100
Fever	9·2	11·9	9·9	10·6	14·9	9·2	10·9	13·2	15·2	100
Diarrhœa	1·4	1·7	1·5	1·5	3·1	5·8	13·4	27·3	44·3	100

The statistical investigations, however, of Mr. Buchan and Dr. Mitchell, published in the *Journal of the Scottish Meteorological Society* for 1877, show that, as regards scarlet fever, the curve for New York is entirely opposed to that for London. Thus, the lowest death-rate from this disease happens in New York between the end of July and early in October, which corresponds with the period of rise and greatest mortality in London. Again, the curve for London falls in February, March, April, and part of May, thus attaining its lowest point when the mortality is greatest in New York. We are therefore driven to the conclusion either that the same meteorological changes which appear to increase the disease in London decrease it in New York; or that the mortality per cent. of attack is greater at one period of the year than at another. Similar opposing curves are noticeable as regard whooping-cough. These are by no means satisfactory results to have arrived at after so much labour. On the other hand, the curves of mortality from small-pox, measles, diphtheria, typhoid fever, diarrhœa, phthisis, bronchitis, pneumonia, heart-disease, and apoplexy closely correspond in both of these great cities.

The curves for London of temperature and of deaths from "all causes," do not correspond, as whilst the former rises continually up to July and the first week in August, and then falls sharply, with the exception of the first fortnight in December, until the end of the year, there are two elevations and two depressions in the latter curve. Starting from the lowest part of the *mortality* curve, which occurs in the month of June (during which the weekly mean temperature rises from 55 to 61 Fahr.), a very rapid ascent takes place in July, at the end of which the mean weekly temperature is 62° Fahr. The curve then remains almost level for a few days, and rapidly falls again to the first week in October, when the mean weekly temperature is about 53° Fahr. It then ascends rapidly to the end of December, when the highest period is reached, and, with slight oscillations, it remains high to the end of March, and

then rapidly descends to its lowest point in June. The death-rate, therefore, describes one long ascending or elevated curve from the first week in October to the end of March, when the weekly mean temperature ranges between 54° Fahr. in October, 35·8° in January, and 45° at the end of March. The extremely sharp ascending curve in July is caused chiefly by the deaths from diarrhœa, whilst the almost equally sharp ascending curve in November arises from the great mortality caused by acute diseases of the lungs. The relations between the excess of mortality from diarrhœa and the increased temperature are so marked as to show that directly or indirectly the disease depends on the increased heat. The summer in New York is hotter than in London by as much as 12·5° Fahr. in July and 10·5° Fahr. in August, so that, as might have been expected, the deaths from diarrhœa rose to as much as 346 per cent. above the mean for New York against 279 in London, during the seven years 1871-77. Although the curves generally correspond as regards bronchitis in London and New York, yet there are considerable differences during the winter months in the rate of increase in these two cities. The mean monthly winter temperatures in New York are much lower than in London, being 8·8° in December, 8·7° in January, 10·1° in February, and 6·4° in March below the London mean temperature; but the mortality curve shows an increase of only 43 per cent. above the mean, against 85 per cent. for London; the total fluctuations in New York representing 86 per cent., against 148 in London. Now, as the winter is so much colder in New York, and the oscillations of temperature are so much greater, why is the difference in the death-rate from bronchitis so large in these cities? I believe the reason to be that the air of New York is much drier than that of London, so that there is very little of the "raw weather" which makes the London winter so very unpleasant and unhealthy. Fog, also, in London often increases the number of deaths from lung diseases to a very great extent.

I have already alluded to the great difference in the curves for whooping-cough and scarlet fever in London and New York. In the last-named city there are two maxima and two minima for whooping-cough; the former occurring in February and March, and again in August and September, whilst the minima happen in June and November. In London there is only one maximum, which lasts from the end of December to the end of May, during which period the mean weekly temperature ranges from 40° down to 36° in January, and 54° in May. The mean temperatures in New York during the months just mentioned are so different that the rate of mortality from whooping-cough can have but little relation to the temperature, at any rate in that city.

Although the curve of typhoid fever, as already stated, has a close similarity, it is by no means identical in both cities, as the maximum occurs in September in New York, when the mean monthly temperature is 64·0°, whilst the highest occurs in London in November, when the mean temperature is 40·6°. This difference in the temperature is very great. Taking, therefore, whooping-cough, typhoid fever, and scarlet fever into consideration, it is evident that other meteorological conditions than those of temperature, and probably other causes of illness—bad drainage, for instance,—must be in operation to produce these different results. As regards the diseases just mentioned, death arises more often from complications and sequelæ than from the severity of the febrile attack, which may perhaps account for some of the differences just mentioned. The figures from which these comparisons have been made are taken from Mr. Buchan and Dr. Mitchell's paper published in the *Journal of the Scottish Meteorological Society*, in 1877.

The periodical occurrence of epidemics of scarlet fever, small-pox, and other zymotic diseases does not appear to depend on meteorological phenomena, but chiefly, if not entirely, on the number of persons liable to the disease then living in the locality. There may be some other influence which assists to determine the recurrence with such great regularity, but this I cannot discuss at present.

Considering the intimate relations known to exist between bacteria and disease, I do not think I shall be digressing if I refer to the influence of temperature on these micro-organisms. In a paper which I read in 1880 before this Society, I pointed out that whilst some of the living forms in sewage ceased to move at a temperature of 130° Fahr., the majority, especially the micrococcus and bacteria, continued in action up to 140° Fahr., when almost all ceased to move. These observations correspond pretty well with the experiments of Vacher and others on vaccine lymph, which lost its infective power at 150° Fahr. *Bacillus anthracis* is killed by a temperature of 131° Fahr., continued for some time, whilst the hay-bacillus requires a considerably higher temperature for its destruction. Dr. J. C. Ewart states that in a recent outbreak of fever in Aberdeen, characterised by frequent relapses on the second day, he ascertained that all the patients were supplied with milk from one dairy, and that on examining the milk, he found numerous bacilli and spores resembling those of *Bacillus anthracis*; that these being introduced under the skin of some rats caused death, but that, by cultivation, the infective power of the bacilli became gradually less active, and subsequently, when kept at a temperature which prevented the formation of spores, the power of infection became lost. Unfortunately for my purpose, the temperature is not mentioned.

There are, so far as I know, but few observations as to the temperature and other meteorological conditions which induce the growth of these organisms, so as to cause endemic or epidemic diseases. Dr. Loomis, of America, states that the *Bacillus malariæ* cannot be developed until the mean daily temperature reaches 58° Fahr., and unless there be a certain amount of moisture in the air, in the subsoil, and surface of the ground. Also that malarial diseases do not become epidemic until the mean daily temperature reaches 68° Fahr. Sir J. Fayrer says that a temperature in excess of 60° Fahr. and the presence of moisture are requisite for the development of malarial poison. Klebs and Tommasi-Crudeli say that a mean temperature of 68° Fahr. or above is required for the growth of the *Bacillus malariæ*, and that, when this is reached, any quantity of this bacillus can be found in the soil of the Pontine Marshes and the Campagna. Koch states that the bacillus of tubercle requires a temperature of above 86° Fahr. for its propagation, and that, therefore, save in hot climates, it cannot increase except in an animal. M. Pasteur showed, about two years since, that if fowls were inoculated with the bacillus causing splenic fever, they did not contract the disease until the temperature of their blood was artificially reduced; and M. Gibier has successfully inoculated frogs with the same virus, after their temperature had been raised by immersion in warm water, although they were previously insusceptible to its action. The bacillus which is met with in water-closets when diarrhœa is prevalent is said not to be met with until the mean daily temperature is in excess of 60° Fahr.; and it is certain that diarrhœa is rarely prevalent in London until the water of the Thames reaches a mean temperature of 62° Fahr. The difficulty, however, as to the water-closets is that bacilli are found there at times when diarrhœa is not prevalent; and the same may be said as regards the stools of infants.

The influence of light on the growth of bacteria is very marked. Thus, in 1877, Dr. Downes and Mr. Blunt proved that strong sunlight succeeded in arresting the development of bacteria; and Professor Tyndall has corroborated their statements, and showed that whilst one set of flasks containing infusions were speedily contaminated with numerous bacteria if kept in the dark, others similarly prepared did not contain bacteria when they had been exposed to the sun's rays during three days, showing that the arrest of development continued during the night.

In conclusion, I have to apologise for the sketchy character of my address, but the time at my disposal does not allow of an exhaustive discussion of any part of the subject.

SPONGE-GRAFTING.—Dr. Whitman, reporting four cases of this, which occurred in the Boston City Hospital, observes that the treatment was not followed by the remarkable results that have been reported in the English journals. Sponge-grafting, he adds, would seem to be of use in a certain limited class of cases, such as deep circumscribed ulcers of the leg, which are often followed by adherent cicatrices that readily break down. In these cases the sponge forms a trellis-work, through which the granulations spring up from the bottom of the wound, thus preventing the contraction from the edges. The sponges used in grafting should be perfectly clean and thoroughly carbolised. They should then be soaked in dilute acid until they become quite friable, in order that they may be absorbed more rapidly.—*New York Med. Record*, October 7.

ORIGINAL COMMUNICATIONS.

ON OFFENSIVE CATAMENIA, OR BROMO-MENORRHŒA.(a)

By ALFRED WILTSHIRE, M.D., F.R.C.P. Lond.,

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COMPLAINT is sometimes made that the catamenial discharge is offensive. Fortunately this is not a common symptom, but when present it may occasion great distress to the sufferer, and annoyance to her associates. You are aware that under ordinary circumstances the odour of the menstrual discharge, though peculiar, is not offensive. It has been compared to that of the marigold (*Calendula officinalis*), and Virchow attributes it to the presence of fatty acids. Courty points out that the change in the odour of the sexual exudations, which comes on a day or two before the flow sets in, presages its apparition. He remarks that it is an odour *sui generis*, and that it has physiological analogies with the genital emanations of female mammiferæ at the epoch of the rut. No doubt much of this increased odorousness arises from the greater activity of the sebaceous glands about the vulva; and its intense and penetrating qualities (and, to the male, alluring properties) are well known.

In some animals it is exceedingly powerful and persistent, and in dark-skinned races (negroes) and in red-haired women it is often very strong. But it is not with these emanations, mostly derivable from the neighbourhood of the pudendal orifice, nor with the peculiar odour pervading some menstruants, that we are at present concerned. It is with the abnormal odour contracted by the flux at or before its emergence from the uterus. It may be difficult in all cases to dissociate the two, but the distinction should be borne in mind in endeavouring to arrive at a diagnosis.

I have now met with a considerable number of cases of offensive catamenia—for which I would propose, in accordance with scientific nomenclature or nosology, the name of bromo-menorrhœa,(b)—and have found them to arise from very different causes, rendering it necessary that accurate inquiry should be made in order to arrive at a correct diagnosis in each case, upon which basis alone can appropriate treatment be founded.

So far as my investigations have yet gone, the disordered conditions with which the affection is most frequently allied appear to be divisible into two chief classes—those of *general* and those of *local* origin, though, of course, these may be combined.

The general class comprises chlorosis and allied impaired blood-conditions.

In chlorosis, menstruation, when not suppressed, is usually of a feeble type, the flow being scanty even if regular. Mostly the discharge is very pale, and in some cases it is green in colour.

It is in chlorotics presenting this greenish discharge that offensiveness is apt to occur. This is seldom persistent or pronounced, nor is the flow abundant, but the latter may become so from intensification of hæmatolytic change. It seems to be primarily due to the degraded blood-condition, for it subsides when that is amended; but I have thought that in some instances fœtidity was favoured when, through scantiness, the flow was insufficient to establish a current strong enough to carry out the excreted fluid before decomposition began. The colour is probably owing to altered hæmoglobine.

Although chlorotic young women appear to be most liable to this form, I have observed a few instances in simple anæmia; and, more rarely, in patients who have been living in unwholesome houses or exposed to sewer-gas or other mephitic exhalations.

Probably other causes of blood-impairment may in like manner be operative, and will in time be discovered.

It is curious, and worthy of mention in this connexion, that in young women subject to ozæna the nasal discharge becomes much more offensive at the catamenial epochs than during the interval. I have personally observed several instances of this, and have a case under observation at the present time, in the person of an otherwise attractive young lady from the country, who has had ozæna since she had scarlet fever two years ago. The same may be said of two other allied affections, namely, chronic otorrhœa and onychia maligna. Patients who are subject to menstrual hæmatemesis often complain of the disgusting flavour of their vomit at these epochs, and I have heard poor women declare that it is "those things coming upwards."

The other class, of *local* origin, comprises several varieties. These may be grouped as follows:—(*a*) Attributable to prolonged retention and decomposition of clots and other *débris*, due either to mechanical obstruction to the exit of the flow (stenosis or flexion), or to deficient expulsive action on the part of the uterus, often accompanied in either case by a scanty flow. (*b*) To the character of the discharges in certain morbid conditions and growths within the body of the uterus—for example, in subinvolution, particularly of the placental site—after abortions or confinements; in papillomatous and other diseases of the endometrium; in polypi, fibroids, sarcomata, epitheliomata, and other malignant growths of the interior of the uterus, usually where the discharge is not abundant, for if there be hæmorrhage enough to keep the *débris* washed away, decomposition may be prevented, except where fœtor comes on only on the subsidence of the flow. I have reason to believe that it is an occasional, though rare, sequela of gonorrhœa, and that it accompanies certain degenerations of the endometrium.

It is obvious that when there is a mechanical obstacle to the escape of menses the remedy consists in overcoming it by appropriate measures. When there are grounds for believing the offensiveness to be due to retention of the menses from defective expulsion, oxytocics may be given—as quinine, cinnamon, borax, ergot, viburnum, vinca major, and such like. When there is no obvious blood-impairment a suspicion of local trouble may be justifiable, and indicate exploration where it is admissible. But this is not always permissible, and should be refrained from whenever it can properly be avoided. This happened in one of my patients, a well-grown young woman, not anæmic or chlorotic, who appeared not to be herself very conscious of her infirmity, but stated that the laundress complained of the offensiveness of her diapers. In her case offensiveness came on only towards the end of a copious flow.

In the case of defective involution of the placental site, which may be accompanied by an ichorous, offensive weeping, undergoing aggravation at the menstrual epochs, similar treatment is desirable. Internally, astringent preparations of iron, nux vomica, and arsenic are also usually requisite. Our therapeutic efforts should, in fact, be directed generally as well as locally in such cases. The condition is not very uncommon after miscarriages, especially when often repeated, or due to syphilis. In the latter event small doses of bichloride of mercury given with the old-fashioned tr. ferri sesquichlor. (P.L.) yield the best results.

Many of the most severe and obstinate cases of fœtidity of the catamenia are due to disease of the endometrium. In illustration I may mention the cases of two ladies seen in consultation respectively with Dr. Lamb, of Hull, and Mr. Longrigg, formerly of Penge. Dr. Lamb's patient had never borne children, and it was doubtful if she had ever miscarried. She had been married some years, and had for a long time been troubled with an offensive and acrid discharge at the menstrual periods, which were rather free. To summarise the case, I may say that the conclusion to which I came was that there was some morbid growth in the endometrium, and that relief could only be obtained by its removal. This, accordingly, I undertook after dilatation, and was enabled to verify the diagnosis by removing a quantity of papillomatous growths from the fundus uteri. Great relief followed, but there was a recurrence of the growths, necessitating a second operation, after which came permanent improvement. Mr. Longrigg's patient had borne children, and in her case the disease followed a miscarriage. In this lady's case I also removed papillomatous growths with complete success; but after two or three years she had another miscarriage, followed by renewed growth, necessitating removal on two occasions, but happily with the result of a permanent cure. Cases more or less analogous are by no means

(a) Notes of a lecture delivered to the students of St. Mary's Hospital.
(b) Βρωμος, "stench."

uncommon. Several other allied cases have come under my notice both in consultation and in hospital practice. Many were accompanied by persistent flooding following abortions, and proved to be due to relics of placental tissues or villosities, or were in some cases attended by partly organised blood-clot. A severe case of the latter kind I saw with Dr. Fyfe some years ago. In the somewhat rare cases of malignant growth in the cavity of the body of the uterus, especially in elderly women, the discharges may at first be merely sanious and fœtid; soon, however, metrorrhagia supervenes. Offensiveness of the catamenia may accompany intra-uterine polypi, particularly if small and numerous. When these or similar growths excite free hæmorrhage, the mal-odour ceases, or may be observed only towards the end of a period. The same may be said of fibromata, sarcomata, or carcinomata.

The occurrence of offensiveness in the catamenial discharges of women approaching middle age, who have previously been healthy in this respect, is sometimes of ominous significance. It may be the precursor of cancerous disease, and when complained of should always lead to an examination. If this were more commonly practised in such cases we might hope to discover latent malignant mischief much earlier than we usually have the opportunity of doing, for the poor sufferers seldom seek advice until they are driven to ask relief for their floodings or pains, and the disease may then have advanced beyond the reach of human aid.

Similarly, in polypi and some fibroids the earliest symptoms may be an offensive sanious flux preceding or following the menstrual flow; though usually flooding is an early symptom.

Whenever practicable, removal of the morbid growths should be resorted to. In the sessile papillomata or villous growths, erasion by means of the curette is the best means. This I follow by the application of some caustic—either chemical, as chromic acid, iodine, or nitric acid, or (rarely) by the actual cautery. The results are generally gratifying, but recurrence is not rare. In all cases the removal should be thorough, and I have a suspicion that recurrence may be favoured by reticence in scraping. An experienced operator will avoid this error. The finger should always search the whole of the interior of the uterus, and any suspicious place should be scraped and afterwards dressed. Microscopical examination of the removed tissues should always be made so as to enable a reliable prognosis to be arrived at. The importance of this is well illustrated by the following case. A few years ago I saw, in consultation with Dr. Barrington, of Bexley Heath, a maiden lady aged sixty-two, who had recently begun to flood profusely. An exploration became imperative, and Dr. Barrington having made an examination, brought the lady to me. On examination, I found a small mass about the size of a walnut springing from the interior aspect of the cervix uteri. A few days after, I went into Kent, and, in conjunction with Dr. Barrington, removed the mass and cauterised the stump under chloroform. I lost no time in having a microscopical examination of the specimen made, which was kindly done by my accomplished friend Mr. Butlin, who at once pronounced it to be a round-celled sarcoma, with, as he remarked, so little stroma that a rapid recurrence was predicable. However, for some months there was freedom from hæmorrhage or other unfavourable symptom, but eventually the growth recurred, and spread with relentless vigour, the patient ultimately dying with profuse floodings and numerous masses in the abdomen. Here the microscopical examination justified a decided, though unhappily unfavourable, prognosis; and it is so with some of the growths encountered in the endometrium; while, on the other hand, a benignant growth would warrant a favourable prognosis.

Besides the operative treatment indicated in morbid growths, there are other methods of treatment which yield gratifying results in the different varieties of the disorder.

In the chlorotic cases the syrup of the iodide of iron has yielded me the best results. I often combine it with tincture of nux vomica, ordering it in the following form:—℞. Syr. ferri iod. ℥ij., tinct. nucis vom. ℥x.—misce; to be taken in water or stout three times a day. I prescribe it in this form, because if the syrup be dispensed in mixture form combined with an aqueous vehicle it soon decomposes. Should a smaller dose of the syrup be desired, the teaspoonful dose may be adhered to by adding a sufficient quantity of syrup of ginger or simple syrup to make up the fluid drachm. I have thought improvement in the blood-condition the most important thing to secure in the majority of these cases, and have been well rewarded by the results of such treatment. But with this object I not only administer iron and other hæmatinics, but prescribe exposure to sunlight (sun-baths), sea-bathing, horse-exercise, and, generally, a much improved dietary, in which red meats and Burgundy figure conspicuously. Arsenic is in certain cases very helpful, but requires care in use. Chlorate of potash benefits some patients.

In all cases, from whatever cause arising, unless obviously contra-indicated, boracic acid, the sulpho-carbolates, salicyn, quinine, and iodine may be administered internally in the hope of lessening the fœtor. But I am bound to say that the results are not very encouraging. It may be hoped that the new agent—boro-glyceride—may prove useful both for internal and external use. Aperients and sudorifics are occasionally helpful—*e.g.*, Turkish baths.

As regards local measures other than operative procedures (such as erasion, removal of morbid growths, and dilatation), injections and irrigations with deodorising materials are very useful. Solutions of boracic acid, sulphurous acid gas, carbolic acid, iodine (one fluid drachm of tincture of iodine to five fluid ounces of water, or stronger) and such like may be employed. *Intra-uterine* treatment of any kind, whether by injections or otherwise, should be employed with extreme circumspection at all times, and especially at the catamenial epochs. The intervals between the catamenia should be chosen for operative measures whenever these are indicated.

In virgins, in whom injections or similar procedures are inadmissible, and indeed in all cases, the offensive odour may be to some extent concealed and annoyance lessened by the use of charcoal in the diaper. Pieces of animal charcoal may be infolded in the diaper, or may be placed in a muslin bag, and applied in the usual manner.

Iodoform mixed with eucalyptus oil may be useful in certain cases, *e.g.*, in morbid growths; and when applied to the summit of the vagina, or near the seat of lesion, controls the trouble pretty effectually.

Pledgets of cotton-wool soaked in glycerine with boracic acid (or boro-glyceride?) are highly efficacious; they excite a watery flux, but have a decidedly sweetening influence. Intra-uterine medication, allow me again to say, is only to be undertaken with every precaution, and should be resorted to only in refractory cases not admitting of other means of relief.

The caution must not be omitted, that in some married patients who are thus afflicted the acrid discharges excite urethritis in the husband if intercourse be indulged in near the periods. Much mental as well as bodily distress may be thus created, and unjust suspicions aroused. It may be your privilege to remove and allay these, and thus preserve the happiness of your patients.

Depaul and Gueniot mention that Diday, of Lyons, has described cases of urethritis arising from intercourse during the catamenia.

On the other hand, when it originates in the gonorrhœal poison (which in some women seems to excite a kind of villous proliferation of the endometrium with virulent discharge, exceedingly difficult of cure, being most obstinate and persistent) there is frequent infection of the husband; and unhappily this may be followed by re-infection of the wife, so that eradication of the trouble becomes most difficult. In one case seen by me in consultation, this unfortunate state of things had already extended over many years, and the patients, an attached couple, were almost in despair. The discharges in the lady were not only most offensive, but equally acrid, causing excoriation of her own privates, while in her husband they brought on perpetual attacks of urethritis. The case was cured by radical erasion and cauterisation of the uterus of the wife, and by appropriate treatment of the husband, together with enforced abstinence from intercourse for a considerable time. The cure was permanent.

I have a suspicion that in a few instances of chronic catamenial offensiveness a syphilitic taint has been at the bottom of the mischief. Certainly the suspicion is warranted if with bromo-menorrhœa we find secondary eruptions and other signs of syphilitic cachexy, all yielding to specific treatment.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CHRONIC ABSCESS IN THE GROIN—ULCERATION INTO THE RIGHT COMMON ILIAC ARTERY—DEATH.

(Under the care of Mr. BERKELEY HILL.)

[For the notes we are indebted to Mr. MARTIN, Acting Surgical Registrar.]

SARAH P., aged thirty-five, was admitted into University College Hospital, under the care of Mr. Berkeley Hill, on August 26, 1882.

Previous History.—She had been married nine years, and had not had any serious illness up to five years ago, when she had an attack of "rheumatism" in the right hip, which confined her to bed for five weeks. She was treated with blisters externally, and recovered in due course. Seven months later a similar attack occurred, which kept her in bed for two weeks; the pain, however, did not quite disappear for some four or five months. There was no stiffness of the joint. She was shortly afterwards confined (nine months after the commencement of the second attack); began to get about again in six days. She now remained well for another six or seven months, when a third attack came on: her hip-joint was painful and swollen; the swelling was opened by her medical man. In another four months the patient was about again, but she did not quite recover; her hip remained stiff, and felt weak. One or two other attacks occurred, the swelling bursting spontaneously, and discharging a thin watery matter. She was now taken into the Sevenoaks Cottage Hospital, where another swelling was opened near the place of the former spontaneous opening. She commenced to menstruate at fourteen years of age; the flow has frequently been attended with much abdominal pain. She has had five confinements. The first and fourth children died of measles and of diarrhœa respectively; the other children are healthy. She has had one miscarriage. Ever since the first confinement a pain has been present almost constantly in the umbilical and hypogastric regions; the pain varies in intensity with the condition of the general health; it is sometimes accompanied by tenderness.

September 1.—Was examined under ether by Mr. Godlee. It was found that a ragged opening existed at the inner part of the thigh in the labio-femoral groove, into which a probe could be passed for a long distance towards the sacrum, which it appeared to reach, but no bare bone was felt. A resonant spot was found in the middle of Poupart's ligament, immediately outside the vessels; when opened with a scalpel, air escaped, mixed with dirty-looking pus; there was no smell with it. It was found that a probe could be passed from this wound into the original sinus, and so on to the sacrum. On passing in the fingers through these openings, the external iliac vessels were felt beating between them. No dead bone could be felt anywhere about in the pelvis, and no light could be thrown on the cause of the abscess either by this or by a vaginal examination. A drainage-tube was put in, and the wounds were dressed with wet boracic lint.

October 7.—Was again examined under ether. Mr. Hill passed a long probe through one of the sinuses towards the sacro-iliac joint without meeting with any bare bone; neither could the finger, when introduced into the same sinus, feel any bare bone. The sinus was slit up in the direction of the iliac crest, and after having been syringed out with chloride of zinc solution, a drainage-tube was passed in as deeply as possible. A pad of oakum was bandaged over all.

20th.—About 7 p.m. the patient discovered that she was bleeding. The House-Surgeon (Mr. Elgood) having been summoned, found the dressings soaked through, and much blood also in the bed. He removed the dressings, and then it was seen that the blood was issuing from the lower wound in the groin, which was choked with coagulum. The clots were gently removed; no bleeding point could be seen, so it was decided to plug the wound with lint soaked in carbolised oil, and pressure was kept up by means of a spica bandage. The patient was very weak and exhausted—a nurse was told off to carefully watch her. Four hours later the bleeding recommenced, and Mr. Hill was sent for. Meanwhile, the abdominal aorta was compressed and the wound was plugged afresh. The patient, however, speedily exhibited signs of collapse, and died before Mr. Hill could arrive.

Autopsy, fifteen hours after Death.—On opening the abdomen in the median line, the cæcum was found to be tightly fastened down to the iliac fossa by old peritonitis. On raising the cæcum, these adhesions gave way, and discovered immediately behind it a currant-jelly-like clot about the size of a child's kidney. This being turned out, a firmer, partially decolourised granular clot was found overlying the right common iliac artery at its lower part. On injecting the aorta with water, the fluid was seen to escape from a hole on the inner side of the right common iliac, about one inch above its bifurcation. The common iliac vessel was occupied by a reddish-grey clot, attached at several places to the wall of the vessel, and extending a little way into its bifurcation. The right ovarian vein was much dilated, and surrounded where it crossed the iliac vessels with inflammatory exudation matter and pus. The wall of the abscess-cavity lay behind the right kidney, passing upwards to the right sides of the bodies of the lumbar vertebræ. The abscess ended here in a point, but no connexion could be found with carious bone. On dissecting off the soft structures superficial to the vertebræ the bone was found healthy; on cutting into the bone it was also found healthy. On the back of the kidney, lining the wall of the abscess, there was a layer of yellow lymph, about two inches long and about one inch thick. It could not be peeled off very easily. The abscess ended below in the sinuses in the groin already mentioned. The hip-joint was opened, and found quite healthy; neither was there any disease of the sacro-iliac joint. The abscess nowhere entered the pelvis; there was no inflammation around the uterus, and no other evidence of peritonitis than that already referred to. Liver pale and anæmic, otherwise healthy. Kidneys: both very pale; right capsule slightly thickened; left—the substance tore easily; there was one small cyst. Spleen flabby, not enlarged; capsule not thickened; substance very pale. Thorax, no fluid or adhesions. Lungs very pale, but otherwise normal. Pericardium normal. Heart-substance normal; valves rather thickened by atheromatous deposits. The brain was not examined.

PILOCARPIN IN PLEURISY.—A case occurred recently in Prof. Peter's service at the Charité, which exhibits the efficacy of pilocarpin in certain cases of pleurisy. A man, thirty years of age, came to the hospital with pleurisy which had existed about a fortnight, producing an effusion which filled the right pleura. A puncture gave issue to 1200 grammes of a sero-fibrinous liquid, about a litre, as was calculated, being left in the pleura. For its absorption three blisters were applied without any effect being produced, and a solution of two centigrammes of the nitrate of pilocarpin was therefore hypodermically injected. Some minutes after a very profuse sweat broke out, which continued for an hour and a quarter, a salivation abundant enough to completely fill two spitting-pots going on during this time. The pleurisy at once disappeared, no physical sign of the presence of the liquid remaining. Thus what three blisters could not do before, pilocarpin effected in an hour and a quarter. But this was under the most favourable circumstances, since it was only the passive remnant of pleurisy, quite unaccompanied by any inflammatory action having no tendency to increase, any more than to spontaneously disappear.—*Gaz. des Hop.*, No. 79.

RESTORATION OF POWER OF DIVIDED NERVES.—With regard to the restoration of function of divided nerves, there is a difference between the nerves of sensation and those of motion, restoration taking place to a much greater degree in the function of sensation than in that of motion. When the motor nerves have been divided there is much less chance of the patient regaining lost power of function than there is in the case of sensation. It would seem that there is more active nervous power required for a nerve of motion than for one of sensation. At all events, the fact, I believe, is a general one, that the restoration of motor power is much less perfect than that of sensation.—*Dr. Post, in Phil. Med. Reporter*, September 23.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, NOVEMBER 4, 1882.

PARASITIC DISEASES AMONG PLANTS.

The publication by Professor Hartig, of Munich, of a work on the Diseases of Trees ("Lehrbuch der Baumkrankheiten," Berlin, 1882), affords a convenient opportunity of presenting to our readers a few of the more general facts of vegetable pathology; and we shall practically limit ourselves to the parasitic diseases. It has always been reckoned to the credit of botanical study that it is a bloodless pursuit, and our impression got from reading Professor Hartig is that it may be as dispassionate as it is bloodless. It may be only an optimist fancy, but the parasitic pathology of plants appears to us to have been in great part exempt from sensationalism and haste in its progress towards exactness.

Until thirty or forty years ago it was always assumed that parasites settled upon vegetable growths where decay and death had come on from other causes. There are still many saprophytic parasites, which settle on a part because it is dead or decaying; but it is now known that a very large number of parasites settle upon healthy plants and trees, and become justly chargeable with the disease that follows. It is interesting to the human pathologist to find that the schizomycetes, including the bacteria, bacilli, and the like, take no part in producing the diseases of plants, and that they have not even anything to do with the erroneously named putrefactive process of dead vegetable tissue. They are to be found among all dead vegetable substances to which they have ready access, and they may even assist in their breaking-up; but there are various sufficient reasons why they do not play that active part in the diseases of vegetable tissues which appears to be proper to them in the case of the tissues of diseased animals. The parasites that are positively or actively hurtful to trees are either phanerogamous plants or cryptogamous plants, and, indeed, the greater part of disease among trees is due to such parasites. The cryptogamic parasites are by far the most common, and they are chiefly the moulds or mycelium-producing fungi. The amount of harm done by these moulds is very various, and at one end of the scale the presence of the parasite cannot be said to be injurious at all. Within a few years it has been found out that certain lichens or liverworts, which were supposed to be distinct individuals forming well-marked species, consisted of a parasitic fungus living on an alga. The two plants existed together in a kind of mutual helpfulness, the substances produced by assimilation in the chlorophyll-containing alga serving for the nourishment of the fungus. The name of symbiosis has been given to this remarkable kind of dual existence.

It has been found by no means easy to determine the precise share that these parasites have had in producing the morbid conditions of the trees in which their presence has been detected, careful observations and experiments being necessary to that end. It appears that, even among the botanical pathologists, there are "opponents of fungus-pathology," who take up the position that healthy and well-nourished plants are unassailable to parasitic fungi, and that the appearance of an infectious disease is simply a proof that the plants were already sickly, probably through bad or insufficient nourishment. This contention is met by admitting the important part that predisposition plays in the parasitic diseases of trees. Predispositions are put down under several heads. The first includes the age of the tree, the season of the year, and the kind of weather; and of that kind of predisposition the following is an example. A common disease of firs is due to the invasion of a fungus (*Tramete pini*), but the spores can vegetate and send in their threads only at the fresh wounds of branches. Now, up to forty or fifty years of age a wound is at once protected by the turpentine welling out and forming a layer over it; whereas in older trees the turpentine is no longer fluid, but deposited in the desiccated cell-walls, and the wound therefore remains uncovered. Under a second head are included such peculiarities as are inherited by individual trees or by varieties; for example, the early or late appearance of the foliage. The spores of many parasitic fungi are ripe at a certain time of the year, and they germinate only on those individual trees which are in the favourable state of leafage. A third category of predisposition to parasitic invasion is represented by certain acquired liabilities; thus a tree which grows naturally in the shade is apt, when exposed to the sun, to lose the natural properties of its bark, and to become liable, through the altered quality of the latter, to the inroads of fungi. Again, wounds at which fungi may enter are, in a sense, an acquired predisposition. Apart from the liabilities incurred by certain individuals and varieties, there is no such thing among plants as inherited disease. Trees that may have acquired disease to a very considerable extent, produce seedlings that show no trace of the parental defects.

Passing by the mode of dissemination of the infective diseases of trees (by mycelium when it is underground, but usually by spores or gonidia when there is exposure to the air), we come to the highly interesting subject of the effects which the parasite produces upon the tissues of the host. Those effects are best explained by the assumption of a ferment proper to each species of fungus. The ferment is presumably formed in the protoplasm of the fungus, excreted by the hyphæ, and communicated to the cells in the neighbourhood. In many cases the mycelium vegetates in the living parenchyma of the plant, without occasioning the smallest recognisable changes. Hyperplasia, or quickening of the rate of cell-multiplication, is one of the common effects of the fungus. Still more frequent are hyperplasias accompanied with the most peculiar transformations of blossoms, fruits, and other parts. Visible changes in the cell-contents are sometimes indirectly attributable to the action of the fungus. Thus, the mycelium of *Hypoderma*

macrosporon kills the tissues at the base of the needles of the fir, and so interrupts the return of metabolised matters from the uninjured portion of the needle. The new-formed hydrocarbons being unable to escape, starch rapidly accumulates in and distends all the cells of the leaf. A more direct change takes place in the oak, in consequence of the appropriation of tannin by the invading fungus. Tannin affords excellent nutriment to fungi, and it is remarked that the characteristic tannic odour of oak-wood, which is a reliable test of the soundness of the tree, disappears with the invasion of the mycelium. A fungus may affect either the cell-contents or the cell-wall, or both. Each fungus has its characteristic effects upon the wood, even if the trees belong to different species. Thus a certain fungus called *Polyporus sulphureus* vegetates in the oak, the willow, and the larch; and in a short time it changes the wood into a characteristic condition so uniform in all three that it is not easy to recognise those differences between the respective woods which are so striking in their sound state. This fact is explicable only by the assumption of a remarkably powerful ferment, acting in a manner that is characteristic for the species of fungus. The disengaged ferment may act at a considerable distance from the mycelium.

Such are a few of the more general facts relating to parasitic disease in the vegetable kingdom. The greater part of Professor Hartig's volume is occupied with a more particular account of the commoner parasitic maladies of trees, a knowledge of which is of so direct importance in practical forestry. It is within comparatively recent years that some very common and very injurious diseases of forest trees have been traced to their true cause; and that gain to science, with corresponding gain to practice, is in great part owing to the German schools. Apart from predisposition, most of the conditions for an analogy with human and animal diseases are wanting; there is practically no heredity *quoad* disease, and constitutionalism, generalisation, and cachexia are equally outside the phenomena of morbid plant-life. At the same time, the diseases of plants, like those of insects, are the grand opportunity of the parasitologist, the parasites being mostly the moulds or filamentous fungi, as in the skin diseases of man.

TREATMENT OF PHTHISIS AT HIGH ALTITUDES.

THREE considerations induce us to take up at the present time the subject of High Altitudes in the Treatment of Phthisis—firstly, the appearance of Dr. Hermann Weber's work on Climato-therapeutics, if that expression may be used; secondly, the report of a case of phthisis treated at high altitudes by Dr. C. T. Williams, an abstract of which may be found in our issue for October 21; and, lastly, this is the season at which the flight of *poitrinaires* to higher regions of the earth's crust takes place. We will first give a *resumé* of the physiological effects of high altitudes on invalids, taken from Dr. Weber's recent work. The activity of the skin is increased, its nutrition and functions are improved. The contractions of the heart and muscular tissue of vessels are probably rendered stronger, the number of cardiac strokes being increased at the beginning, but falling again to the usual rate after prolonged residence, the individual cardiac beats being more powerful. The number of respirations is first augmented, then returns to the normal rate, with probably greater depth of movement. The respiratory muscles are hypertrophied, and *probably also the elastic fibres of the pulmonary tissue.* More blood is present in the lungs. Speaking generally, the exhalation of moisture and of carbonic acid is promoted, *the separation of* CO_2 *being made easier.* In the majority of cases the appetite and nutrition are aided, which leads to an improvement in the formation of blood, and a better state of nutrition of the body. Greater energy of the neuro-muscular system is brought about; and, generally, sleep is found to be more refreshing, and there is probably an increase in the metabolism of the body. Almost all observers agree that there is an enlargement of the thorax. We mention this last because it is one of the effects, according to some, more especially associated with residence at high resorts. Dr. Weber has observed, in fourteen cases of weakly built chests in young people not showing other physical signs of disease, a widening of from one to two and a half centimetres after a residence of between three and twelve months. The real question at issue seems to be whether the good that phthisical patients derive from mountain climates has anything special in it. Does a lower reading of the barometer continued over some months exercise an influence for the better, apart and separate from a purer atmosphere and all those other hygienic considerations which such a resort necessarily entails? Investigations made at various mountainous parts of the world show that the inhabitants of these lofty regions are conspicuous for a large thoracic development. This fact has been quoted by Dr. Williams as an argument for the belief that chests become larger simply because of the change of altitude. It is clear that large chests and high altitudes do sometimes go together, but we question whether all the inhabitants of these mountainous parts have large chests. Dr. Williams's investigations were made on the Chamounix guides, and these are *Führer* because of their strength and endurance. We ought to have the census of the inhabitants of mountains, a census which should show the height and chest-girth of every Switzer, guide or no guide, before any statement worthy of full belief can be entertained.

Measurements represented by cyrtometric tracings, taken by different observers, are by no means the conclusive evidence which their promoters would have us believe. We should like to know whether an increase of an inch *in circumference* could not possibly be due to faulty measurement; our own limited experience in cyrtometrical tracings would certainly favour such a notion. We have long thought cyrtometric sketches of the chest of very untrustworthy nature: we have traced the outline of chests, one side of which was obviously distended and contained a quantity of fluid, and have found no increase of measurement on the diseased side, although the shape of the outline was obviously different. The capacity of a hollow body is at its greatest when it nearest approaches the spherical form. We mention these facts merely as a caution, not that we doubt that enlargement does occur, but that we should rather be content to simply state the fact qualitatively, and not in a too exact quantitative form. We question whether such hypertrophies of thorax may not be brought about by other causes, such as hard climbing and exercise, whether this be indulged in below or above the sea-level. We think the remarks of Dr. Broadbent, short as they were, at the last meeting of the Clinical Society, pregnant with suggestions. Is Davos superior to a sea-voyage?

The difference is between a higher and lower pressure of the atmosphere and a more or less degree of moisture of the same. Is a case which is suitable for Davos suitable for a sea-voyage? The affirmative answer being given, the advocate of Davos says that the thorax of a patient sent there will be widened to a greater degree than that of one who went on a sea-voyage. Dr. Williams, for whose enthusiasm in relation to the treatment of phthisis by high altitudes we have the utmost respect, has quoted the dictum of Biermer—(that southern climes heal catarrh, whilst alpine climates improve the constitution)—to refute the notion entertained by Dr. Wilberforce Smith, that

mountain resorts tend to diminish the liability to intercurrent attacks of inflammation. The greater the number of catarrhal attacks, the more will the emphysema become; an emphysema not with increase of elasticity of lungs—an emphysema which might enlarge the chest and might prevent the spread of tuberculous disease, but which can hardly be of such good to the patient as a smaller chest with less emphysema and yet with a lung healed as well as it can be. We have Dr. Williams's experience for the statement that hypertrophy of the chest is never so great from residence at low levels or on a sea-voyage as it is after a stay in high regions, and it is on this account that we append the above remarks concerning the difficulty of obtaining accurate cyrtometric tracings, which difficulty should always make us cautious in speaking of relative changes. It is patent that the difference, as regards increase in chest-growth, between patients sent on a sea-voyage and to Davos respectively, cannot be so great as to be obvious at a glance. Moreover, other *à priori* reasons weigh strongly with us, so that we feel inclined to doubt whether the result of a large experience might not be to upset the result of previous mensurations. We should like to know whether the well-developed, not rigid chest, say of a healthy sailor who had done hard work and seen plenty of service, would undergo any further expansion at high alpine or other mountainous regions.

We want many more observations—cases carefully recorded. One thing is certain, that the risk involved in giving advice to a consumptive patient is considerable, even if we only take into consideration already-known facts. The weather at these high places is not always reliable; many stormy days, with sky overcast and frequent snowing, during the winter at all events, may compel a prolonged stay indoors, where breathing re-breathed air, charged, possibly, with the modern bacilli of phthisis, can hardly be of benefit to the patient. We must never lose sight of the principle that if we can do no good we should do no harm. At the International Medical Congress, 1881, Dr. Alan Herbert, of Paris, in commenting on Dr. Williams's paper, related the case of an old gentleman who seemed to have received rather evil than good from residing at Davos; and Dr. Althaus, at the last meeting of the Clinical Society, narrated the case of a young lady who had derived no benefit from the alpine resort, but had considerably improved in the Rocky Mountains.

In the case of the old gentleman, the vascular system seems to have been overtaxed by the high altitude; in the young lady, why did the diminished pressure of the atmosphere at one station fail, and yet succeed at another? Is it possible that the sea-voyage had something to say to this, or had the disease spontaneously ceased its ravages? What we really know up to the present time is not much, and may be summed up as follows. Mountain climates are capable of improving the general health of individuals who are exhausted, without special disease, and of doing good in a similar fashion to cases of phthisis in the early stage; that they do permanently arrest consumption by any virtue of their own is, and must remain, a doubtful question, seeing that some cases of phthisis may certainly be cured even in London. Very difficult indeed is it to decide what therapeutical value a rarefaction of the air may have in the treatment of phthisis.

THE WEEK

TOPICS OF THE DAY.

As further inquiries are instituted, and more impartial evidence comes to hand, the conviction is gradually spreading that the sweeping charges made against the Medical Department of the Army during the recent campaign in Egypt were the outcome of either reckless statements or, shall we say? constitutional fault-finding—perhaps a little of both. That this would be the result of any careful inquiry we pointed out three weeks ago. Since then, Mr. Edgar Crookshank, House-Surgeon at King's College Hospital, who was the only civilian medical officer officially employed at the front, has published an account of his experiences, in the course of which he states that the report of the deficiency of anæsthetics was utterly inaccurate. He was present at the majority of the operations performed at the base hospital, and not only in these, he observes, but also in all difficult cases where it was necessary to inflict pain in making a searching examination, an anæsthetic was invariably administered. Such testimony is valuable under the existing circumstances, since it comes from one thoroughly competent to judge whether the requirements of a hospital were really forthcoming, and likely to be strictly impartial from the fact that he is not a member of the Department against which the charges are made. The War Office Committee about to commence its investigations will doubtless clear up many of the random statements promulgated, and its report will be looked forward to by all friends of the Medical Department who desire to see justice done to a branch of the Service always endeavouring to carry out its onerous duties conscientiously—more frequently than not, under difficulties which the military authorities neither appreciate nor endeavour to lighten.

It is announced that a sum of £160 has been received from the Royal Arsenal, Woolwich, as a contribution to the Hospital Saturday Fund, of which no less than £101 was contributed by the Royal Laboratory Department alone. The total collection at the Arsenal last year amounted to only £90. The receipts from the General Post Office are also considerably in excess of those for 1881, amounting in the aggregate to £286. The workshop collections are stated to be still coming in satisfactorily, and thus far, both in number and amount, are generally in advance of those of preceding years. The time fixed for the reception of these collections, admitting of their inclusion in the present year's balance-sheet, has been extended to the 18th of the present month. Between thirty and forty different hospitals and dispensaries have intimated their willingness to receive representatives of the Fund at their respective boards of management as life-governors.

The Lord Mayor, accompanied by the Lady Mayoress, recently visited Upper Norwood for the purpose of opening a cottage hospital in the Hermitage-road there. The hospital owes its origin to the exertions of a number of local gentlemen, who two years ago formed themselves into a committee for the purpose of establishing a cottage hospital to meet the wants of a district which is so far removed from the great London hospitals. The building, which is openly situated, is built in the Queen Anne style; it contains fourteen beds distributed in four wards, and the annual cost of each bed is estimated at about £30. The probable cost of the building and all the necessary fittings (about £2750) has already been subscribed, and the committee have enough funds in hand to provide for the maintenance of eight beds; but to secure the permanence and efficiency of all the beds an endowment fund of £2000 has been established.

M. Duclerc recently opened the proceedings of the International Congress on the Electric Unit, at the Foreign Office in Paris. He expressed his thanks to foreign governments for having sent illustrious savans as delegates, and dwelt upon the interests of France in the solution of a problem which would not merely enlarge the field of human knowledge, but facilitate scientific research, and pave the way for admirable discoveries powerfully contributing to human health and progress. To specify the methods of observing

atmospheric electricity and of studying earth-currents would insure the more effective and less perilous use of electricity; and he was happy to see the French metropolis selected as the scene of the labours of the Congress.

The St. John Ambulance Association is now entering on its sixth session, and the approaching winter promises, we are told, to excel its predecessors in the extension and development of ambulance work. Several important meetings have already been held in the provinces, notably at Middlesborough, for the presentation of certificates by the Countess of Zetland; at Chester, for a similar purpose, by the Duke of Westminster; and at Leicester, to inaugurate the new session, attended by Lieutenant-Colonel F. Duncan, R.A., Deputy Chairman of the Association. Fresh classes have also been started in populous London districts, such as Southwark, Canonbury, Holloway, and Barnsbury; while among the newly established centres may be included the Shetland Isles (of which Her Royal Highness the Princess Beatrice has become President), Marske-by-the-Sea, Swanage, Worthing, Guernsey, Farnham, and Perth. Colonel Duncan will shortly deliver inaugural addresses at Carshalton, Willesden, and other suburban districts; and last, but not least, must be mentioned several well-attended and successful classes for City *employés*, meeting at the headquarters of the Association at St. John's-gate.

At the third annual meeting of the West Cheshire Provident Dispensary, recently held at Birkenhead, the President, Dr. Vacher, in returning thanks for his re-election to that office, congratulated the members on the success which had attended the undertaking. It had been well supported by working-men from the beginning; the contributions from that source had been £104 in the first year, £149 in the second, and £208 in the third, or just double the first year's payments. He looked forward to much greater results in the future, and he quoted the case of the Coventry Provident Dispensary, an institution which had received from working-men's payments during the last year no less a sum than £1640. The three professional gentlemen attached to this Dispensary received £314, £317, and £344 respectively; and what Coventry, with a population of 42,111 had done, Birkenhead, with a population of 84,000, ought certainly to be able to equal, if not exceed. Experience, Dr. Vacher explained, has shown that if the doctors are paid half the working-men's subscriptions (the portion they are entitled to by the rules), the remaining half is just about sufficient to provide first-class drugs, the dispenser's salary, and the rent. Other incidental expenses will always have to be met in some other way, and the committees of provident dispensaries all over the country had come to the conclusion that help of some sort over and above the working-men's subscriptions was absolutely necessary. The West Cheshire Provident Dispensary had up to the present time been fortunate in securing the donations of many who were anxious to help those who tried to help themselves, and he had no doubt such friendly support would still be accorded to the undertaking. In conclusion, he exhorted the provident members to endeavour by every means to imbue their fellow-workmen with a sense of the advantages to be derived from joining the undertaking.

At a recent meeting of the Hackney District Board of Works, Mr. Runtz, the Hackney member of the Metropolitan Board of Works, reported that the plans for the laying out of Hackney Downs as a place of recreation for the people had been submitted to the Parks Committee of his Board, and that the improvements, incorporated with suggestions from the Hackney Open Spaces Committee, would prove highly satisfactory both to the Board and the public. Local settlements were also effected as to the open spaces in Dalston-lane and Grove-lane, and these are to be laid out as soon as practicable. It was further stated that the conversion of Shacklewell Green was also under the consideration of the Open Spaces Committee of the Hackney District Board. From the foregoing information it will be seen that much has already been done at the East-end of London to preserve to the free use of the public as breathing and recreation grounds the few open spaces in that quarter of the metropolis which have escaped the ceaseless encroachments of bricks and mortar.

The Thirlmere Lake arbitration case has at length come to a conclusion. The arbitrator in the suit brought by the Countess Ossalinsky, the proprietor of land in the neighbourhood of the lake, against the Corporation of Manchester, delivered his award on Monday last. In stating the claim a year ago, counsel for the Countess stated that the sum involved was "more than £60,000, and perhaps something less than £100,000." The arbitrator finds the Countess entitled to £64,445, and a sum of either £6000 or £4000 additional, contingent on the view that may be taken of a special point in the case.

THE STRENGTH OF THE ARMY MEDICAL DEPARTMENT IN EGYPT.

THE Secretary of State for War, in answer, on the 31st ult., to questions suggesting that the Medical Service in Egypt was not efficient, and there was not a proper supply of nurses, stated to the House of Commons that it was beyond dispute that no military expedition ever left this country with anything like the proportionate strength of medical officers and attendants. The medical officers actually embarked from England numbered 163, and 13 others would have left had not the additional draft been stopped. The numbers of the Army Hospital Corps were 18 officers and warrant officers, and 817 non-commissioned officers and men; and 29 nursing-sisters were sent out by the War Department. Of these 29 sisters 6 were obtained from the National Aid Society. This does not include sisters of mercy, or nurses sent by private societies, "of whom," said Mr. Childers, "we have no knowledge."

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT a meeting of the Royal College of Physicians of London, held on October 26, permission was given to the Rev. R. F. Whistler to have a copy made of the portrait in the College of his ancestor, Dr. Whistler, a former President of the College. Drs. R. E. Carrington and James Anderson, both Members of the College, were appointed additional Examiners in Anatomy; and Dr. D. Ferrier, Fellow of the College, and Dr. H. Watney, a Member, were appointed additional Examiners in Physiology. Mr. Richard Everard Webster, Q.C., was elected one of the Standing Counsel of the College. A report was received from the Harvey Tomb Committee, recommending that a marble sarcophagus be erected to contain the leaden shell in which are enclosed the remains of Harvey; the sarcophagus to be placed in the Harvey Chapel of the Church of Hemel Hempstead, Essex. A drawing of the proposed sarcophagus accompanied the report. The College adopted the recommendation, and directed the Committee to carry it out. The question of explaining the grounds for nominating members for election to the Fellowship, mooted by Dr. Quain, was referred to the Council for further consideration. Dr. Acland moved the following highly significant and important resolutions:—

1. "That, whereas the Royal Commission on granting medical degrees has now affirmed the principle of diminishing the number of examining boards for medical licences, the Royal College of Physicians takes the opportunity of

re-affirming that principle, already adopted and acted on by it." 2. "That the President be requested to name a committee to consider and report to the College, as early as possible, what combination, if any, the College can best enter into for examination purposes, so as to secure for England, without further delay, one complete pass examination board, which shall be satisfactory to the profession, the Medical Council, and the Government." 3. "That the President be requested to take such steps as he may see fit, in order to obtain for the committee the fullest information on the matter referred to it." The resolutions were seconded, and, after some discussion, adopted by the College, and the President nominated a committee to carry out the object of them.

NERVE-STRETCHING.

Dr. von Weltrubsky has reported (*Deutsche Med. Zeit.*, No. 41) on a new series of cases of nerve-stretching performed by Dr. Gussenbauer, who wrote a pamphlet on the subject two or three years ago. In one case of ascending neuritis of the sciatic nerves, in which the right only was stretched, the stretching relieved the pain and cramp, improved the motility of the legs, but left the other sensory disorders unchanged. The rest of the cases (nine in number) were sufferers from tabes dorsalis. Both sciatic nerves were stretched, and an amelioration in the sensorial and motorial symptoms ensued in every case, even where the disease was of long standing. On the whole, however, the results were not very satisfactory. In one case death followed in thirty-three days, when pyelo-nephritis and typical sclerosis of posterior columns were found on post-mortem examination. Two cases of "unilateral hip-gout" and one of epilepsy with motor aura received no lasting benefit from the operation of nerve-stretching. All these observations are arranged in tabular form in von Weltrubsky's paper, showing the condition of the patients both before and after treatment.

SIR THOMAS WATSON, BART.

The profession will have heard with great sorrow of the grave illness of Sir Thomas Watson, the most revered and most beloved of physicians. Whilst staying in Reigate with his son he was made suddenly conscious, on Sunday, October 22, of a weakness of the left side. This gradually increased, till he became unable to stand or walk without assistance. There was no appreciable loss of power in the left arm; but the tongue, when put out, deviated slightly to the left. There was no drowsiness, and Sir Thomas's intellect remained unclouded. On Thursday last week he had a severe attack of dyspnœa after slight exertion, and since then he has been confined to his bed; and, we are grieved to learn, he is getting gradually more feeble and helpless, though there is no marked paralysis. His mind is still perfectly clear, and he suffers no pain or discomfort. He can take only the lightest kinds of nourishment, but maintains his bodily warmth. The pulse keeps regular at the rate of about sixty a minute. Sir Thomas dozes a good deal during the day, though he is easily roused; and at night he usually sleeps for several hours.

DISINFECTION BY HEAT, AND ITS PRACTICAL APPLICATION.

The superiority of heat over all fumigations and other reputed disinfectants is now generally recognised, and local sanitary authorities have already in many districts set up disinfecting ovens or chambers of one or other kind. It is, however, of the utmost practical importance that the intensity and duration of the temperature required for the destruction of bacilli and of spores should be fully appreciated and attended to, if such "disinfection" is to be really effective, and not a dangerous delusion. Drs. R. Koch and Wolffhügel, after a long course of carefully conducted experiments, find that bacteria are not killed until after an exposure of one hour and a half to a temperature of 100° C. (212° F.). Spores of fungi require a greater heat, viz., 110° to 150° C. (230° to 300° F.), for at least as long; while nothing less than a temperature of 140° C. (285° F.), continued for three hours, suffices to kill the spores of bacilli, as those of anthrax. These are the germs with which we have to deal in practical disinfection. Such a temperature will, in three hours, infallibly kill these spores, but since it takes that time to penetrate to the centre of even small bundles of clothes, or of pillows, a further exposure of like duration will be required for their complete disinfection, and few articles of clothing or bedding will bear such treatment without serious damage. It is to be regretted that Drs. Koch and Wolffhügel did not repeat their experiments with moist air, for there seems to be no reason to fear that the presence of a proportion of vapour not amounting to saturation can detract from, if indeed it do not actually enhance, the efficacy of the heat; while it is known that the most delicate fabrics, as ostrich feathers, dyed silks, etc., are uninjured by a temperature of 300° Fahr. under these conditions, and if the moist air be forced in under pressure, as in W. Lyon's apparatus, the penetration of the heat is greatly facilitated. The general conclusion to be drawn from these experiments, which are described in detail in the *Mittheilungen des k. Gesundheitsamte*, Bd. I., seems to be that nothing less than a three hours' exposure to a temperature of little short of 300° Fahr., with precautions to insure the penetration of every part of the articles subjected to it, is sufficient. How this is to be attained is a question of detail, but at present it certainly appears that preference is to be given to the particular apparatus above named.

THE PARIS WEEKLY RETURN.

The number of deaths for the forty-second week of 1882, terminating October 19, was 1111 (594 males and 517 females), and among these there were from typhoid fever 244, small-pox 8, measles 8, scarlatina 1, pertussis 4, diphtheria and croup 27, erysipelas 6, and puerperal infections 2. There were also 28 from acute and tubercular meningitis, 166 from phthisis, 12 from acute bronchitis, 25 from pneumonia, 85 from infantile athrepsia (31 of the infants having been wholly or partially suckled), and 32 violent deaths (26 males and 6 females). The number of deaths for the week is larger than the weekly mean number of the last four weeks. With the exception of typhoid fever, the epidemic mortality is low, but of that disease the deaths (244) are only 6 less than last week, the admissions having been 741 in place of 1001. The births for the week amounted to 1226, viz., 649 males (479 legitimate and 170 illegitimate) and 577 females (418 legitimate and 159 illegitimate): 101 infants were either born dead or died within twenty-four hours, viz., 61 males (45 legitimate and 16 illegitimate) and 40 females (28 legitimate and 12 illegitimate).

NEPHRECTOMY.

In a recent number of the *Archiv für Gynäkologie*, Dr. Leopold, of Leipzig, publishes an interesting case in which he successfully extirpated the kidney on account of a tumour as big as a man's head, and which proved to be a blood-cyst. The operation was undertaken in the belief that the tumour was ovarian. The author is of opinion that the criteria usually laid down for the diagnosis of renal from ovarian tumours—viz., that the former have bowel in front of them, and that they are first noticed between the false ribs and the ileum—are only of use in the case of small tumours. In this case there was resonance in the flanks,

and dulness in front; and no information could be gained as to the seat of origin of the tumour. It pressed down into the brim of the pelvis, displacing the uterus backwards, and could not be pushed up. There was no disturbance of the urinary function. He thinks that in such a case correct diagnosis was not only extremely difficult, but impossible. Examination of the tumour failed to reveal the source of the blood effusion. It was enclosed by the renal capsule, and the lower end of the kidney was spread over the cyst like a cup. The kidney tissue was healthy. Dr. Leopold has been unable to find any similar case recorded in literature. We noticed at page 496 of our second volume for 1881 a paper by Kroner, giving a summary of the cases of nephrectomy, 41 in number, which that author had been able to find published. To these Dr. Leopold now adds 34 others, which have been recorded since Kroner's paper was written —making 76 in all. Of these in 38 the kidney was removed by laparotomy, with 22 deaths and 15 recoveries, in one the result being uncertain. In 38 the lumbar incision was used, with 13 deaths and 24 recoveries; in one of these, also, information as to the result being defective. The conditions for which these 34 more recent operations were done were the following:—By laparotomy: hydronephrosis, 1 case, cured; sarcoma, 1, died; adenoma, 1, died; encephaloid, 1, result not stated (an American case); movable kidney, 7, 4 deaths, 3 recoveries; pyonephrosis of horseshoe kidney, 1, died; removed with an ovarian tumour, 1, died. It is difficult to see how the removal of a horseshoe kidney, even though affected with pyonephrosis, could be justifiable. By lumbar incision: movable kidney, 1, recovered; perinephritic abscess, 2, both recovered; ureto-abdominal fistula, 1, died; ureto-uterine fistula, 1, recovered; sarcoma, 3, 2 of which recovered, 1 died; hydronephrosis, 1, died, the other kidney being afterwards found to be atrophic; pyonephrosis, pyelitis, calculous pyelitis, traumatic abscess of kidney (we quote the descriptions *verbatim*), 8, 5 of which recovered, 3 died; cancer of the uterus (why the kidney was removed we cannot conjecture), 1, died.

THE YELLOW FEVER IN THE UNITED STATES.

THE *New York Med. Record* of October 14 furnishes the following statement:—The yellow fever has almost disappeared from Brownsville, Texas, only 12 cases and 2 deaths being reported in the week ending October 7. This makes a total of 1912 cases and 109 deaths. It is reported to continue with great severity in the Mexican towns and ranches bordering on the Rio Grande. The infected districts are prevented from spreading the disease into Texas by a cordon of guards extending from Brownsville to Laredo. Official reports from Pensacola, Florida, state that between September 30 and October 4 there occurred 241 cases and 22 deaths, which, added to the 725 cases and 76 deaths previously reported, make 969 cases and 98 deaths. Later reports show that the fever continues there without abatement. On October 9, the forty-first day of the scourge, there were 48 new cases and 5 deaths, making a total of 1300 cases and 112 deaths. The Board of Health at Pensacola employs 120 nurses, in addition to several sisters of mercy. Business is entirely suspended.

THE PARKES MUSEUM.

THE first general meeting of the members of the Parkes Museum since its incorporation was held on Saturday, at the new premises lately acquired by the Council in Margaret-street, Regent-street. Captain Douglas Galton, C.B., presided, and among the numerous gentlemen interested in sanitary science present were Professor De Chaumont, F.R.S., Mr. George Godwin, Professor John Marshall, F.R.S., and Mr. Davenport Hill. On the motion of Mr. Thomas Twining (of Twickenham), it was unanimously resolved that Prince Leopold, Duke of Albany, who had consented to accept the Presidency, be formally elected to that office. The following noblemen, ladies, and gentlemen, each of whom had signified their consent, were then elected Vice-Presidents:—The Duke of Northumberland, the Duke of Westminster, the Earl of Derby, Earl Fortescue, the Baroness Burdett-Coutts, Sir Richard A. Cross, M.P., Sir Joseph Fayrer, K.C.S.I., Miss Florence Nightingale, Mr. Edwin Chadwick, C.B., Professor Huxley, Mr. Robert Rawlinson, C.B., and Professor Tyndall. The Council of the Museum, in whose hands its administration is vested, were then elected unanimously. These gentlemen are:—Captain Douglas Galton, C.B., F.R.S. (Chairman); Dr. George Vivian Poore (Vice-Chairman); Berkeley Hill, Esq., M.B., 55, Wimpole-street, W. (Treasurer); Professor W. H. Corfield; Rogers Field, Esq., C.E.; George Godwin, Esq., F.R.S.; Dr. W. R. Gowers; Professor T. Hayter Lewis; Professor John Marshall, F.R.S.; Charles H. Parkes, Esq.; Dr. J. Russell Reynolds; Edward C. Robins, Esq., F.R.I.B.A.; Dr. Sieveking; Professor T. Roger Smith, F.R.I.B.A.; Dr. J. Charles Steele (of Guy's); Thomas Twining, Esq.; Alfred Waterhouse, Esq., A.R.A.; and Dr. Dawson Williams (Hon. Sec.). Captain Douglas Galton, C.B., F.R.S., in replying to a vote of thanks for presiding, proposed by Professor De Chaumont, said that the Museum had now entered on a fresh phase of existence, and had established itself as an independent institution in premises which bade fair to serve its purpose, for the present, at least, admirably. The Council contemplated making the sanitary arrangements necessary for the Museum itself as perfect as possible, and it was intended that all such arrangements should be useful for teaching purposes. The drainage of the new buildings, which when they were taken over by the Council was very defective, was about to be renewed on sound principles, under the direction of Professor Corfield and Mr. Rogers Field, and every detail of it would be open to inspection, and thus available for purposes of instruction. It gave him great pleasure to announce that Mr. Rogers Field had generously offered to defray the whole expense of the new drainage. Mr. Thomas Twining, who had been for years an enthusiastic worker in hygienic science, was about to present a most valuable food collection, containing specimens of all dietetic substances, carefully classified and arranged in suitable cases. It was hoped that the Museum would be open to the public soon after Christmas, and that it would quickly take its place as an important educational centre. A vote of thanks to Mr. Rogers Field, C.E., for his generous offer brought the proceedings to a termination.

THE EPIDEMIC OF TYPHOID IN PARIS.

BETWEEN October 16 and 22, inclusive, there were admitted 407 new cases into the hospitals, and 92 deaths occurred during the same period. The number of cases of typhoid in the hospitals on the evening of the 22nd was 2175. The *Progrès Médical* supplies the following figures in continuation, derived from the *Bulletin Municipal*:—During the three days, October 23 to 25, there were 152 admissions and 28 deaths, leaving in the hospitals on the evening of the 25th 2131 cases. From the 15th to the 25th the daily admissions oscillated between 25 and 77, while between the 9th and 14th they had oscillated between 86 and 180, showing that the epidemic is on the decrease. M. Quentin, the Directeur de l'Assistance Publique, in an address delivered before the Conseil Municipal, to a certain extent in reply to reproaches of imperfect provision for the crisis, stated that in the general hospitals, without counting the special ones, there were 5616 beds and supplementary beds occupied by patients, 2519 of these being for acute, 2270 for chronic cases, and 767 for

infirm persons. In face of the too small number of beds for acute cases, he has, in the course of a few weeks, organised no less than 1495 additional beds to meet the emergency, and 156 others are in active preparation.

THE METROPOLITAN ASYLUMS BOARD.

THE usual fortnightly meeting of the Managers of the Metropolitan Asylums Board was held on Saturday last, when the subject of the Hampstead Hospital was brought forward in a report from a sub-committee, stating that the Hospital had been furnished and prepared, and would be ready for occupation on the 4th inst. In relation to this a letter was read from the complainants in the late actions respecting the use of the Hospital for small-pox cases, giving notice that the old litigation would be renewed, and fresh action taken to obtain an injunction, should the Board use the Hospital for fever cases. This letter, together with the report of the Royal Commission on Infectious Hospitals, and a letter from the Local Government Board, thanking the Managers for the opinion of counsel respecting the Fulham and Hampstead Hospitals, were referred to the General Purposes Committee. The returns from the different hospitals showed that at Stockwell 36 fever patients had been received in the fortnight, and 27 had been discharged, leaving 138 scarlet-fever patients under treatment, 1 typhus case, and 32 enteric cases—in all, 171. At Homerton, 32 cases had been received, 18 had been discharged, and there remained 173 cases under treatment, of which 104 were of scarlet fever, 23 of typhus, and 40 of enteric fever; one wing of the small-pox hospital had also come into use for fever patients, and this contained 80 cases, of which 85 were of scarlet fever. At Deptford, 25 cases had been received, and 22 discharged, leaving 144 under treatment, 116 of which were of scarlet fever, and 28 of enteric fever. At Fulham, 31 cases had been received in the fortnight, and 2 discharged, leaving 75 cases under treatment, of which 73 were of scarlet fever, and 2 of "other diseases." In all, 158 cases had been admitted during the past fortnight, as compared with 185 in the previous fortnight; during the same time 26 had died, and 88 had been discharged, leaving 652 cases under treatment, as compared with 613 a fortnight since. Of the large number under treatment, 516 were cases of scarlet fever, 24 of typhus, and 106 of enteric fever. In regard to small-pox, there had only been 16 admissions from all London in the fortnight, against 31 in the previous period; 2 had died, and 12 had been discharged, leaving 77 under treatment—viz., 17 in Homerton, 12 in Stockwell, and 48 in Deptford. The Homerton Committee brought to the notice of the Board that the Clerk, Mr. Jebb, acting under advice, had refused to send an ambulance eighteen miles to the Brentwood Schools of Shoreditch parish to fetch a scarlet-fever patient. It was resolved to take the opinion of the Local Government Board on the point.

THE "PHARMACOPŒIA GERMANICA" FOR 1882.

THIS is now ready, and by January 1, 1883, will be distributed over the entire German Empire to replace the edition of 1872. The work has been preparing for several years past by the aid of many of the most distinguished experts of Germany. For this new edition the materia medica has been submitted to a critical examination, and it differs very considerably from that of the former edition. Thus, while a large number of obsolete articles of the materia medica have been struck out, the modern remedies which have been discovered during the last ten years are amply represented. While the "Pharmacopœia" of 1872 treated of 909 articles in 386 pages, the present edition treats only of 599 in 308 pages. The Latin language is employed.

DR. DUDFIELD'S REPORT ON THE HEALTH OF KENSINGTON.

IN his report on the health and sanitary condition of Kensington for the four weeks from September 10 to October 7 last, Dr. T. Orme Dudfield, the Medical Officer of Health, remarks that the state of the public health, as gauged by the death-rate, is still favourable, although the rate during the past month (12·9 per 1000) approximated more nearly to the decennial rate (14·2) than for several months past. The parish death-rate was 5·8 per 1000 below the metropolitan rate, this again being 0·2 per 1000 below the decennial average. The deaths from the principal diseases of the zymotic class numbered 23, and approximated closely to the corrected decennial average (24), the most fatal being diarrhœa, which caused 12 deaths. Thirty-one cases of scarlet fever have been reported in this district during the four weeks under notice, and 3 deaths have occurred from it. In one instance, Dr. Dudfield remarks, immediate removal of the first case in a family attacked might most probably have prevented the deaths of two of the victims, but the first case was concealed, and the outbreak only became known on the registration of the first of the two deaths. In commenting on the recent re-opening of the Asylum Board's Hospital at Fulham for the reception of fever patients from all parts of the metropolis, Dr. Dudfield observes that it will be well to bear in mind that the disease, as he shows, is already existent in localities adjacent to this Hospital; and he calls attention to the fact in view of the possible spread of the disease in the south and western parts of Kensington and Fulham, and in order that it may be known that scarlet fever is well established in the neighbourhood of the Hospital before its re-opening. It will be remembered that Dr. Dudfield holds the opinion that the Fulham Hospital has not in any way been responsible for the spread of either small-pox or fever in its immediate neighbourhood.

THE BRADSHAWE LECTURE: ROYAL COLLEGE OF SURGEONS.

SIR JAMES PAGET, Bart., will deliver this lecture in the theatre of the Royal College of Surgeons, on Wednesday, the 13th prox., at three o'clock.

THE CEPHALIC MURMUR.

DR. G. A. GIBSON (*Birmingham Medical Review*, October, 1882) calls attention to the nature and causes of what is termed "the cephalic murmur." After a brief summary of the work that has been done by others on this subject, he narrates five cases in which the murmur was present, purposely selecting different diseases, viz., struma, chlorosis, menorrhagia, hæmorrhoids, and carcinoma. The patients were all alike, however, in that they were anæmic. The murmur is of a blowing character, and occurs somewhat later than the apex-beat. It may exist without any coincident cardiac murmur, but it is always associated with a venous hum in the cervical veins. It is most clearly heard over the orbit, the mastoid eminence, and the occipital protuberance. The author points out that "these three situations are closely related to the cavernous sinus, the lateral sinus, and the torcular Herophili." He considers that the murmur is produced by fluid waves in these sinuses, and he explains this as follows:—"The internal jugular vein, at its origin and in its upper part, is so closely connected with the internal carotid artery, that the shock of the arterial pulsation is always communicated to it. Hence, in the anæmic state, fluid waves are transmitted upwards to the blood within the cranial sinuses, and cause a murmur in situations where the vibrations come to a focus." As regards the objection that if of venous origin it ought to be continuous, he observes that the ordinary venous hum in the neck is subject to systolic augmentations of intensity, and

he is evidently of opinion that we should find the murmur continuous if the bones of the cranium were better transmitters of the waves of sound; as it is, we only perceive the increased vibrations consequent upon the cardiac systole. The cephalic murmur is always more distinct over the posterior part of the cranium than elsewhere (the orbit excepted), but the relative intensity of the occipital and mastoid murmurs is only occasionally different. In conclusion, he says, "The cephalic murmur entirely depends upon the anæmic condition of the patient, and . . . . it is a sign of anæmia."

THE ACADEMY OF MEDICINE IN IRELAND.

THE project of amalgamating the medical societies in the Irish metropolis is on the eve of being carried into effect. Largely attended meetings of the members of the profession have been held at the Royal College of Surgeons, Stephen's Green, Dublin, on successive Saturday afternoons, for the purpose of considering a draft scheme for instituting an "Academy of Medicine" in Ireland, and so far the work has gone on harmoniously and well. Last Saturday it was resolved, by a large majority of those present at the meeting, to revert to the original title of "Academy of Medicine," as being more comprehensive than "Academy of Medicine and Surgery." It is to be regretted that the Dublin Obstetrical Society still withholds its allegiance to the amalgamation scheme, although, curiously enough, the individual members of this Society almost unanimously expressed their approval of the project some months ago.

"QUAIN'S DICTIONARY OF MEDICINE."

THE profession will be very glad to learn that this long-expected work, an early copy of which has courteously been supplied to us, has at last been actually published. We heartily congratulate Dr. Quain and his able and efficient assistant-editors—Dr. Frederick T. Roberts and Dr. J. Mitchell Bruce—on the successful completion of their long-continued and arduous labours. It must always be a difficult task to review or criticise at all fully a completed dictionary or cyclopædia, and the more comprehensive and complete such a work is, the more difficult does it become for anyone to give, till after a considerable time, an adequate and just review of its correctness and fulness. Some idea may, however, be gained of the value of such works by glancing at the list of contributors; and anyone who applies this test to "Quain's Dictionary" must be much, and most favourably, impressed by the long roll of well-known writers and workers, in this country and abroad, who have aided the editor in giving us such a true dictionary of scientific and practical medicine as the present one is. And no one can look down the list without great sadness as he comes—alas, how frequently!—upon the names of personal friends, or other known and trusted professional brethren, who have passed to the majority since the Dictionary was commenced some eight years ago. Out of about one hundred and sixty co-workers, sixteen have laid aside their pens for ever, and the record of their earthly work has been closed. The Dictionary contains what are probably the latest writings of such workers as Callender, Lockhart Clarke, Tilbury Fox, Thomas Hayden, Pearson Irvine, Edmund Parkes, Leach, Murchison, Silver, Sparks, and others—we will not complete the list. In the Dictionary, which consists of over 1800 double-columned octavo pages, the several diseases are treated of in alphabetical order—the description of each including an account of its etiology and anatomical characters; its symptoms, course, duration, and termination; diagnosis, prognosis, and treatment. The sections on general pathology comprise articles on the origin, characters, and nature of diseases; and those on general therapeutics include articles on all remedial procedures—medicinal or other—available for the purposes of treatment; on the modes, or supposed modes, of action of such remedies, and on the methods of their use. The large subject of hygiene is fully dealt with, in articles treating of the causes of disease and its prevention, of public health, of personal health, of the construction and management of hospitals, and of the nursing of the sick; and the diseases peculiar to women and children are fully discussed under their respective headings. Some notice has been necessarily taken of diseases that more often come under the care of the surgeon than of the physician; and of course poisons, their actions etc., are dealt with. It must not be supposed that because the Dictionary has been several years in hand the earliest written articles, and those by men who have left us, must be rather out of date. That is by no means the case. Every article that could be revised, or seemed to require it, was carefully revised up to the time when the work went to press, and this, with the addition of an appendix, enabled the editors to notice the latest contributions to medical knowledge. We will not say more now of this valuable addition to medical literature, save that it contains about one hundred and forty illustrations; that it is excellently well brought out; and that though it is so well bound (in cloth) that the volume lies perfectly open at any part, we must regret its great size. It is not, and we suppose could not be, a *handy* volume.

OZONISED AIR AS A HYPNOTIC.

PROFESSOR BINZ, of Bonn, gives a second contribution on Ozonised Air as a Hypnotic, in the *Berliner Klin. Woch.*, No. 43. The observations, which certainly do not seem encouraging, were made on doctors and medical students. The results were various. Several times the breathing of the ozonised air seemed to induce sound sleep; in other cases the effect in the same direction was less marked; in others, again, symptoms of depression were experienced; in one there was twitching of the muscles about the eyes and forehead; lastly, in some there was no effect on the cerebral functions. In most cases a feeling as of being able to respire more easily was felt. Binz therefore recommends this treatment in some forms of asthma.

VITAL STATISTICS OF SCOTLAND FOR THE YEAR 1881.

IT is the custom of the Registrar-General for Scotland to publish annually a supplement to his monthly and quarterly returns of births and deaths, giving a summary of the results of the whole year's observations. In this supplement for the year 1881 he remarks that the census enumeration, then just completed, enables him to frame estimates of the population of Scotland with far more precision than has during the last few years been possible. The estimated population of Scotland may, with due confidence, therefore, be stated to have been, at the middle of 1881, 3,744,685 persons. The number of births registered during that year was 126,214, being at the rate of 3·37 per cent.; as the population for 1880 was manifestly understated, being affected by errors in defect which had been annually accumulating since the census of 1871, the amount of which it would be only possible to estimate, it is deemed wholly superfluous to attempt comparison between the birth-rates of 1880 and 1881. It may, however, be stated that, in accordance with the experience of many recent years, the birth-rate (3·66 per cent.) during 1881 in the large towns exceeded the rates in the principal and small towns, which amounted to 3·56 and 3·47 respectively. During the year under notice the deaths registered amounted to 72,301, being in the proportion of

193 for every 10,000 of estimated population. This rate is lower than that of any year since the Registration Act came into operation in 1855. The average number of deaths was greatest in January, when 257 per diem were registered; in October the recorded deaths were at the rate of only 148 per diem. The average number of deaths registered on each day of the year was 198. The observations on the incidence of different diseases during the several months of the year show that 1 death was registered from small-pox in January, 1 in April, 1 in June, 2 in July, and 1 in August. The deaths from measles were more frequent in July than in previous months; they were least numerous in September, and reached their maximum in December. The deaths from scarlet fever were more frequent in January than in any following month; during October and November they were also rather numerous. The deaths from diphtheria were most frequent in October and November; those from croup in January and November. Whooping-cough was the most fatal epidemic in the early part of the year. During the warmer months the mortality from this disease became much less, but in December it again increased. The deaths from fevers were not very numerous in 1881, their frequency being greatest in June and September, and least in July and August. The mortality from diarrhœa was much higher in August and September than in any other month. The deaths from consumption were most numerous in January, March, and May, least frequent in October and November. The connexion between lowness of temperature and the prevalence of diseases of the respiratory organs was illustrated in a striking manner in 1881. In January—a month remarkable for an unprecedentedly low temperature—the deaths from these diseases amounted to 1071; they diminished in number month by month, until they reached their minimum of 321 in September, gradually increasing again towards the end of the year. Deaths from diseases of the respiratory organs constituted 33·3 per cent. of all deaths in January, and 18·0 per cent. of all deaths in September.

BACTERIA OF OPHTHALMIA NEONATORUM.

Dr. Fedor Krause has adopted Koch's method in cultivating the micrococci of ophthalmia neonatorum (*Berl. Klin. Woch.*, No. 37). The cultivation from pus succeeded only at a hatching temperature, and in sterilised blood-serum of mutton. The further cultivation of the pure material was found to be possible at the temperature of the room in every favourable kind of food. Pus from the eyes of twelve children was used, and in all these cases a pure cultivation was obtained, after the presence of the characteristic micrococci had been demonstrated in the secretion. In two cases the breeding was continued by successive inoculations up to the forty-second and fiftieth generation. The micrococci are figured like two rolls opposed end to end; they retain this appearance for the most part in cultivation in artificial media, though they may present alterations in size. In pure culture the luxuriating micrococci appear grey and yellowish under a low magnifying power; they grow uncommonly slowly, and spread themselves out in the form of a thin covering away from the point of inoculation towards the sides of the vessel; the surface of the film has a moist appearance. Inoculations performed on the cornea, conjunctiva, and urethra of adult rabbits, on the cornea and conjunctiva of young cats, pigeons, and mice, yielded negative results, whether the material used was pure discharge from the eye or that from a pure breeding. As little result was got by subcutaneous injection into rabbits and mice. But inoculation with stuff from pure cultivation caused in new-born rabbits a purulent ophthalmia, which came on in twenty-four hours, and in one animal led to marked suppuration and finally ulceration of the cornea. In researches on five cases of granular lids, no bacteria were found in excised bits of the mucous membrane, and a negative result was the outcome of cultivation experiments—*i.e.*, to ascertain whether breeding would render the micrococci visible, as there might have been so few as not to have been found by microscope.

HOSPITAL GRANTS MADE BY THE CORPORATION OF DUBLIN.

A special meeting of the Corporation of Dublin was held in the Council Chamber of the City Hall on Monday, October 23, when, among other business, the annual presentments in aid of the metropolitan hospitals were made, as follows, to the total amount of £4,595, viz.:—

Mercer's Hospital	£300	Rotunda Lying-in Hospital ...	£300
Jervis-street Hospital	300	Cork-street Fever Hospital ...	300
Hospital for Incurables	300	National Orthopædic Hospital of Ireland...	100
St. Mark's Ophthalmic Hospital	150	Dublin Orthopædic Hospital...	100
City of Dublin Hospital	300	Children's Hospital, Upper Temple-street	150
Coombe Lying-in Hospital ...	520	Steevens's Hospital	150
St. Vincent's Hospital	400	National Eye and Ear Infirmary	100
Meath Hospital	3 0	Throat and Ear Hospital ...	25
Mater Misericordiæ Hospital ..	400	Hospice for the Sick and Dying, Harold's Cross	150
Sir Patrick Dun's Hospital ...	300		
Maternity of Sir Patrick Dun's Hospital	50		

We regret to record that William Alexander Anderson, M.D. Aber., F.R.C.S. Eng., died suddenly at his residence, at Hillingdon Heath, Uxbridge, on the 22nd ult. Dr. Anderson, who had at one time been Assistant-Surgeon at the Royal Naval Hospital, Plymouth, had been in the Commission of the Peace for the county of Middlesex and the city of Westminster for sixteen or seventeen years. He was one of the most active members of the Uxbridge bench of magistrates, and was greatly respected in both his public and his private capacity.

Our advertisement columns contain an announcement that the Hygienic Laboratory of University College is now open for the instruction of students in the subjects required for the Sanitary Science Examinations. We are informed that of the candidates who were approved at the recent examination for the Sanitary Science Certificate of the University of Cambridge, four were students at the University College Laboratory, and a fifth had been a pupil in the class of hygiene at University College.

The President of the Local Government Board has stated that he hopes the report of the inquiry into the "vaccination fatality" at Norwich will be ready for distribution in about a fortnight.

The epidemic of typhoid fever at Bangor is rapidly dying out. Within the eight days ending on Monday last only three fresh cases, all of a very mild type, were reported in Bangor. There was ample accommodation, in this state of things, for patients at Fairview and in the convalescent homes in Upper Bangor; and the local authorities, therefore, were able after Wednesday last to abandon the use of the hospital tents in the Bishop's Park. In Bethesda an almost total cessation of the fever is reported; but at Llandegai, the Penrhyn model village, there is still some fever.

At Cape Town the epidemic of small-pox steadily diminishes, and the Town Council have felt able to lessen the number of medical men engaged to attend to the cases. At Kimberley the small-pox scare continues. The most stringent quarantine with regard to the Malay quarters is kept up, and threats are made that the whole Malay population will be expelled from the camp if any attempts are made to evade the regulations.

THE Chairman of the Metropolitan Board of Works stated in the House of Commons, on Monday, in reply to a question by Sir R. Cross, that the Board had given instructions for the preparation of draft schemes under the amending Act (Artisans' and Labourers' Dwellings Acts) of last session, with regard to four areas, situated in Lambeth, St. George's-in-the-East, Limehouse, and Greenwich respectively. The orders of the Board are being carried out, and should the schemes be approved by the Home Secretary, they will be ready to be submitted to Parliament for confirmation during the session of 1883.

IN reply to some questions put to him by Mr. Carrington, respecting a tribunal to inquire into the Army Medical Department, the Secretary of State for War said that he certainly could not advise the appointment of a Committee of the House of Commons or a Royal Commission to deal with a departmental question, for action upon which he was responsible. The Committee was, he considered, a strong one. He also stated that Surgeon-General Hanbury had not asked for a court of inquiry, but that he had expressed a wish that the fullest investigation of the complaints made against his officers might take place.

ON Tuesday, Mr. Childers was questioned as to the allegation that the Medical Service necessary for the proper treatment of the sick and wounded brought home in her Majesty's ship *Malabar* was insufficient; and he replied that the matter would be minutely inquired into by the Committee presided over by Lord Morley. Mr. Childers added that, since speaking about this Committee the day before, he had come to the conclusion that he might make to it an addition which, from every point of view, would strengthen it. He had asked Sir Robert Loyd Lindsay to act upon it, and that gentleman had consented.

DR. ALEXANDER OGSTON, Surgeon to the Aberdeen Royal Infirmary, has been appointed to the Chair of Surgery in the University of Aberdeen, in succession to Dr. Pirrie, who resigned some while ago.

AT a meeting of the Senate of the Royal University of Ireland, held on Thursday, October 26, on the motion of His Eminence, Cardinal McCabe, seconded by the Right Hon. John T. Ball, LL.D., John T. Banks, Esq., M.D., was elected to be the representative of the University on the General Medical Council for three years from January 1, 1883.

ALBUMINURIA IN PHTHISIS.—In a certain proportion of the cases of phthisis (about 6 per cent.) albuminuria appears as a complication. Its importance varies with the condition of the kidneys. In the simplest form it is a mere temporary congestion; but a congestion due to blocking of the pulmonary vessels may after a time set up permanent changes in the renal structures. When permanent from the onset of the symptoms, it may be a dyscrasic malady, due to tuberculosis of the kidney, or it may be produced by amyloid degeneration, which is a frequent complication of the suppurating processes of tuberculosis, the kidney being one of the organs attacked. It is a fact of much interest, that when albuminuria occurs, the fever proceess and the sweating cease, and thus an illusive appearance of improvement is induced. A subnormal temperature has been observed in some cases. When, therefore, in phthisis, the usual daily febrile movement does not come on, the urine should be examined. It need hardly be observed that the prognosis will be distinctly affected by the discovery of a permanent albuminuria. When the quantity of albumen is large, and the temperature even slightly abnormal, a rapid decline in strength and an early termination may be expected. —*Phil. Med. News*, September 30.

FROM ABROAD.

INDICATIONS AND CONTRA-INDICATIONS OF TRACHEOTOMY IN CROUP.

THE following is a translation of two lectures delivered upon the above subject by Dr. Archambault at the Hopital des Enfants Malades, and reported in the *Progrès Médical*, Nos. 27 and 28:—

You will, gentlemen, all have, if not to perform tracheotomy, at least to determine upon its propriety, and, in order to arrive at a determination of this importance, your motives should be well reasoned out and accurately deduced from the nature of the case submitted to your notice. You ought to be well aware of the aim with which the operation is undertaken, at what stage of croup it is expressly indicated, and what are the chances of success, according as the patient of whom you have the charge is in such or such conditions; in a word, you should be well informed as to the indications and contra-indications of tracheotomy. In order to give you some correct ideas which may serve you as a guide in so delicate a matter, it is of importance, without just now entering into a complete study of croup, for you to know whether in the symptomatic expression of this disease, and the condition of the patient, we can discover some signs which will enable you to arrive at a sure judgment on all these questions.

There are in the assemblage of phenomena which accompany or characterise a case of croup two orders of facts. In the first place are those which spring from the laryngeal affection, and which, properly speaking, are the true and sole symptoms of croup. These will furnish you with the true indication of tracheotomy. Whenever the area of the glottis, whatever may be the mechanism of its narrowing, becomes diminished in such a manner that death from asphyxia must within a limited time be the result, the imperious indication is to open to the air a supplementary access to the lungs, and consequently to perform tracheotomy. It is, therefore, asphyxia which is the true indication, and I at once add *asphyxia by the larynx*, for any other obstacle to hæmatosis which is not caused by occlusion or semi-occlusion of the larynx cannot be removed by this operation. We shall see how it is almost always possible to appreciate the part played by the laryngeal affection in the production of asphyxia—to determine, in a word, that we have to do with a *laryngeal asphyxia*, and not with one of any other kind.

Side by side of the symptoms directly dependent on the laryngeal diphtheria, and at the same time with them, are others which, so to say, do not belong to it, and are entirely contingent as regards the croup; but which are, nevertheless, of extreme importance, because they permit us to recognise the simple or complicated nature of the affection of the larynx, and oblige us not to concentrate all our attention on this latter, and not to make it the exclusive rule of our determinations. Among these symptoms, which may be considered as secondary as far as the diagnosis of croup and the fixing its stages are concerned, but which play a part of the first order in other respects, and especially with regard to prognosis, we may cite the different diphtheritic manifestations which take place under the form of angina, diphtheritic coryza, cutaneous diphtheria, glandular enlargement, pseudo-membranous bronchitis and bronchopneumonia, albuminuria, etc. It is in this order of facts, which, we repeat, do not spring from the croup itself, that we must search for the contra-indications to tracheotomy. These are also found in the conditions of health of the patient at the moment of the invasion of the croup (secondary croup), and in the general condition during the course of the laryngeal malady (infectious croup).

It is an error to regard tracheotomy as a mode of treatment of croup. It is not this, and is nothing else, as I have just told you, than a means of obviating asphyxia by the larynx. I may say more, it is only an expedient, but one of the highest importance. When the operation is over, the symptoms of croup have disappeared, and the croup itself, if you will, has disappeared as regards its dominant symptomatic expression, the asphyxia; but the disease still continues as diphtheria. Tracheotomy has caused, and can only cause, the disappearance of a symptom, asphyxia by the larynx; and it is exclusively against the consequence of

laryngeal diphtheria that it is directed. It is, then, on oppression of the laryngeal respiration that you must exclusively base your intervention. But what is the degree of this oppression of the respiration which should justify intervention, and serve as an indication for the operation? This is a question which, to a certain extent, divides, even at the present time, the soundest judgments, and one on which I wish to enable you to form a personal opinion, although the experience which awaits you here will alone render your judgment solid. From the moment when the first symptomatic lineaments of croup show themselves until that in which asphyxia should cause the fear of approaching death, there are three phases—first, that in which the symptoms of croup exist which are dependent on the cough and characters of the voice, but without notable difficulty in the entrance and exit of air; secondly, when to the symptoms derived from the voice and cough are added—and especially during inspiration—an evident difficulty of respiration, with suffocative paroxysms, but sometimes without these paroxysms; thirdly, the period termed that of asphyxia, because the signs of asphyxia, which were already in existence during the preceding phase, have become very marked, completing and confirming the almost certainty which was already held of a fatal issue within a short delay. This division, founded on the symptoms, is naturally quite artificial, so that the limits of these periods are still more difficult to fix than the existence of the periods themselves, which are pretty easily recognisable. It would never occur to any of you to operate during the first of these stages, even when the existence of a diphtheritic angina should give all their significance to the modifications of the voice and cough. The reason for this is simple, namely, that croup during this period may be not infrequently arrested spontaneously or under the influence of suitable treatment; and that, moreover, there is no asphyxia present, and not even a difficulty of respiration. In the second period, when this difficulty does exist, the idea of tracheotomy springs up, and imposes itself in a manner that is already pressing. But I call upon you to well weigh the reasons which militate for and against hasty intervention, on which you should never lightly decide. The partisans of the early performance of the operation allege the numerical superiority of the favourable results furnished by the cases operated on during the second period. But it is well, even at the commencement of this period, in order to somewhat allay the tendency to precipitancy which is observed on the part of those who pronounce so resolutely in favour of hasty operations, to remark that some of the recoveries attributed to it might perhaps have occurred without the operation, while a certain number of the deaths which have followed this may, without injustice, be laid to its charge. In fact, tracheotomy is by no means so inoffensive as some persons represent it, whether in respect to the time when it is practised or in its ulterior consequences. It was Trousseau, the great promoter of this most precious operation, who was the first to urge his pupils to operate early. "As long as tracheotomy was a treacherous weapon in my hands," he wrote, "I advised its being practised as late as possible; but now that I can count up numerous successes, I say that it should be practised as early as possible." But to what does this "as early as possible" correspond? That is the entire question. M. Millard, in his excellent *thèse*, and most of those who have written after him upon this point, recommend tracheotomy during the second period—that is, when there are suffocative paroxysms producing a temporary asphyxia, and in their interval or in their absence a more or less considerable permanent dyspnœa. Statistics seem to speak in favour of this practice. But does operating during the second period signify that on observing a child the subject of croup you should intervene after the first paroxysm of suffocation has occurred? This doctrine has been maintained; but I cannot assent to it, even when the existence of a diphtheritic angina authorises the admission that the symptoms observed in the larynx are really due to a laryngeal diphtheria. It is certainly just to admit that, under such a condition, the croup most frequently continues to become more distinct, and proceeds in a progressive manner towards that asphyxiated state which will necessitate the opening of the trachea. The opinion of Trousseau went still further; for he did not believe that the disease at this period would yield to medical means, and considered temporisation as so much time lost. It is not so, and you will see—too rarely indeed, but still you will see—children who have had one or two paroxysms of suffocation recover without an operation, whether that then laryngeal spasm has played the chief part, or that the pseudo-membrane has been destroyed or expelled. Everybody relates cases of a cure effected by the rejection of false membranes; and here is a very significant one which occurred to myself. I was called by Dr. Thiere to a child six years of age, who in the night had been seized with a suffocative paroxysm. In the morning there was difficulty of respiration, false membranes being found on the tonsils; and in the course of the day two or three paroxysms occurred, and in the evening the child was so much worse that preparations were made for the operation. While he was being removed to the table, he called out to his father with so clear a voice that I desisted, and, leaving everything prepared, desired that I should be sent for in the night if necessary. In the middle of this he had several formidable suffocative paroxysms, and during one of these rejected a membranous tube which had reached as far as the second division of the bronchi, recovery following rapidly. Who would decide on operating on a child presenting the croupal voice and cough, and having had one or more paroxysms of suffocation, but who had not presented the signs of asphyxia, and especially had no traces of diphtheritic angina? Surely, no one; and that in the hope that the affection of the larynx may not be diphtheritic, and may disappear by resolution. The presence of false membrane in the pharynx, moreover, is not quite sufficient to decide in an absolute manner its nature in the concomitant or consecutive laryngitis. There is a very strong presumption in favour of the identity of the two affections, but not an absolute certainty.

(To be continued.)

IMPORTANT DECISION AS TO POOR-LAW MEDICAL OFFICERS' FEES.

At the Cambridge County Court, on Friday last, the judge (Mr. Bagshawe, Q.C.) gave his judgment in the case of Grubb *v.* the Chesterton Board of Guardians. The plaintiff (Mr. J. S. Grubb) resides at Waterbeach, Cambridgeshire, and is one of the medical officers of the Union at that place. He brought an action against the Guardians for the recovery of £3 3s. 6d., being 3s. 6d. for the supply of a truss to a pauper named Brewer, and £3 for the setting of the leg of a pauper, an old woman named Pearson. As the latter was a permanent pauper, and the case, in the opinion of the Guardians, was not an urgent one, the claim was resisted. The leg, it appeared, had been set temporarily by Mr. Bridger, surgeon, Cotterham, and was a case, it was said, for the hospital. His Honour dealt with the larger claim, £3 for treating the woman Pearson for a fractured leg. The pauper held a ticket for permanent relief, and while this ticket was running the woman broke her leg. This was at Cotterham, and the woman was temporarily attended to by Mr. Bridger. On the way in a cart to Landbeach (her home) they met Dr. Grubb. His Honour was satisfied that the woman was not intercepted on her way to the hospital. Dr. Grubb attended the woman and reset the leg. He sent in his claim for such attendance, but it was suggested that he could not recover, as he did not get a further order as required. The terms of the existing order being without qualification, he took it to be sufficient. He relied upon Article 76 of the Consolidated Orders, which stated that upon the exhibition of a ticket such person was entitled to receive relief in sickness. He also quoted Article 206, defining the duties of medical officers, and amongst them it was stated that upon application made on behalf of the party to whom a ticket was given, the medical officer would be bound to act as if he had received an order from the guardians. In that there was not a word suggesting that the plaintiff was bound to get any further order. The guardians could not make the woman go to the hospital. It was not the duty of the medical officer to provide extra facilities. Article 177 of the General Consolidated Orders settled the point as to plaintiff's remuneration—namely, £3 for setting the leg. His Honour was at a loss to discover any reason why plaintiff should not be paid, and allowed the £3 and costs, the 3s. 6d. being abandoned. Witnesses were allowed—Mr. Ellison for plaintiff, Dr. Cooper for defendant

REVIEWS.

First Aid to the Injured. Five Ambulance Lectures, by Dr. FRIEDRICH ESMARCH, Professor of Surgery at the University of Kiel, etc. Translated from the German by H.R.H. PRINCESS CHRISTIAN. London: Smith, Elder, and Co. 1882. Pp. 100.

IN the short preface by which the Princess Christian introduces her translation of Professor Esmarch's little work, she says it is not in the least degree meant as a substitute for the little handbook published by the late Surgeon-Major Shepherd; but that, having personally attended the ladies' classes of the Windsor Centre of the St. John's Ambulance Association, she, and probably others besides herself, felt the want of a more detailed account of the work aimed at than was supplied by notes made at the time; and such a want Professor Esmarch's lectures seemed to supply. When the Professor came to England to attend the International Medical Congress, last year, he was struck by the value of the instruction given in affording first aid to the injured and wounded through the ambulance classes established by the English Order of St. John of Jerusalem; and on his return home he established similar classes, calling them "Samaritan Schools," and to these classes he delivered these lectures on "First Aid to the Wounded." The course of instruction is divided into five sections or lectures. The first, or introductory, lecture gives a brief account of the structure and organisation of the human body, illustrated by clear, suitable diagrams. The second teaches how to give judicious help in ordinary injuries—contusions, wounds, hæmorrhage, and poisoned wounds. The third treats of first aid in cases of fracture and of dislocation, in sprains and in burns. Next, the methods of affording first treatment in cases of frost-bite, of drowning, of suffocation, of loss of consciousness, and of poisoning, are described; and the fifth lecture teaches how injured persons may be most safely and easily transported to their homes, to a medical man, or to a hospital.

Professor Esmarch originated his Samaritan Schools as a Member of the Red Cross Society, and in his first lecture he says to his class, "There are many among you who have already done service in time of war, and many who, in the event of another war, would be ready to do so again"; and these circumstances have led him to refer more frequently than has been usual in ambulance lectures delivered in England to the aid to be rendered on the field of battle. And though he is careful to say to his class, "I do not in the least aim at rendering a doctor's services unnecessary; on the contrary, I hope to convince you how important the immediate help of a doctor is in most cases. What I wish to do is to enable you to give the *right kind of aid* before the doctor arrives." Yet his own eminent knowledge and skill have led him, here and there, to attribute to his audience more skill and knowledge than are likely to be possessed by lay hearers. Thus he advises the use of a gutta-percha tube, used siphon fashion, to wash out the stomach in cases of poisoning—a mode of procedure that we should hardly like to trust to non-professional persons. And when speaking of the employment of carbolic acid solutions in the antiseptic treatment of wounds, and of the application of carbolic acid and oil to burns, he does not, so far as we have noticed, give any directions as to the strength of such solutions. But his instructions, though concise, are given in plain and clear language, and cannot fail to be very useful. The Princess Christian says:—"Should any of my fellow-countrywomen who read this little book be brought to see how each one of us, in her own immediate sphere, may render effectual aid to a suffering fellow-creature, then the object I have had in view in translating these lectures will have been attained. The satisfaction of being able to render the needed aid to those in pain, and of possibly being the means of saving a valued life, should more than counterbalance the scruples that some might feel in entering on such a study." Her Royal Highness has done excellent service to her countrymen and countrywomen in making Professor Esmarch's lectures available, and her object will surely be attained. The translation is so admirably done that it is difficult to remember that the work is a translation. The illustrations in the book are clear and good, and it has been very tastefully brought out in every respect. It will, we doubt not, command an extensive circulation.

Handbuch der allgemeinen Therapie. Im verein mit Fachmannern bearbeitet und herausgegeben von Prof. H. VON ZIEMSSEN in München. Gr. 8. 4 Bande (in 10 Theilen), mit Holzschnitten. Zweiter Band, Erster Theil. Leipzig: W. Vogel. 1880.

Manual of General Therapeutics. Composed and edited by Professor ZIEMSSEN, in association with other Professors. 8vo. pp. 454. Four volumes, in ten parts, with woodcuts. Second Volume, First Part.

THIS portion of the "Handbook" contains two articles, one by Dr. Hermann Weber on the Therapeutics of Climate, the other by Professor Leichtenstern on the Therapeutics of Baths.

In publishing a large work on the universal treatment of disease, it becomes almost an absolute necessity to engage different authors to write different parts; the advantage of this is immense, as is every manifestation of the principle of division in labour, a principle which contains, in its essence, the doctrine of evolution.

The divisions of the subject of which we here treat have become enshrouded in a halo of semi-mystery which could well have been dispensed with. That climate and bathing are able to effect beneficial changes in the diseased frame no one can deny, but people grow sceptical and feel mentally uncomfortable when almost ecclesiastical formulæ are thrust upon them, without which, it would seem, nothing can be done and nothing hoped for.

The cause of all this is a want of definite knowledge of the conditions which come into play, and of the effects of these circumstances on the human body, even in a state of health. Both our present authors seem to have been inspired with a laudable effort to do everything above board, and the honest truth seems to have been throughout their guiding star.

Dr. Hermann Weber's article is a perfect model of method, rendering the work extremely easy of reference. This is a point of no small value in a book of this kind. In the first section the factors which go to make up *climate* are described and dissected as far as our present knowledge permits. The composition, the warmth, and the humidity of the respiratory medium, the light, the barometrical pressure, and the electrical conditions, may be said to constitute the chief elements of climate. We shall select a few topics here and there to illustrate the general character of the work.

Dr. Burdon Sanderson, in a paper on the "Process of Fever," published some years back, made a statement to the effect that we were very much in want of observations of the behaviour of protoplasm at different degrees of heat. The state of our knowledge in this regard is still very deficient. Pflüger, whose name is an ornament to physiology, has shown that cold acts as a stimulus, increasing the separation of carbonic acid; and Voit's researches have proved the same. Pflüger also showed that warmth likewise increases the dissociation of CO_2; and Marcet's observations on the Island of Teneriffe are quite in accordance. The Duke Carl Theodor has proved in cats (*Zeitschrift für Biologie*, Bd. xiv., S. 51), that by long-continued cold the expenditure of CO_2 is aggravated, and that the consumption of "material" in summer and in heated rooms is smaller than in winter and in cold chambers, so that on the same allowance of food the cats gained in weight during the summer. Dr. Weber cautions us against the notion that hepatic and digestive disturbances in the tropics are to be attributed solely to the heat. We must remember that the humidity, light, wind, and electrical conditions vary at different parts of the world, and that Europeans resident in the tropics may take more nitrogenous food and ardent spirits, and wear more clothing, than is suitable; moreover, in many parts malarial poisons are rife. Likewise, "infantile diarrhœa" of the temperate zone is not solely due to the direct effect of heat. The influence of a moderate degree of heat, such as is present during the early part of the summer and in autumn in temperate climes, is to diminish the exchange of material; the appetite, the respiratory, circulatory, digestive, and urinary functions flagging, whilst the activity of the skin is increased; the energy, both muscular and nervous, is somewhat diminished. In many weak individuals, on the contrary, this degree of warmth heightens the vital functions, probably on account of the smaller demand on the organism through less loss of heat and increased cutaneous secretion. Although cold acts beneficially on those who are healthy, yet

in weak people the vital activities are depressed, and even positive disease may be induced—*e.g.*, hæmatinuria, of which Dr. Weber speaks of two cases.

Rain, from a climato-therapeutical standpoint, is good, because it clears the air of organic and inorganic impurity, increases the formation of ozone, and lessens the relative moisture of the air, which is thereby made more invigorating; at all events, many men feel fresher during and after a fall of rain. Snow, too, is not an unmitigated evil: when the snow lies for a long time the heating of the earth by the solar rays and the associated currents of air are almost quite got rid of; the air too contains less vapour, and is more diathermanous, and so the lighting, warming, and chemical powers of the sun are increased. Snow on the ground prevents the distribution of dust; hence we may say of snow that "it is an ill wind that blows nobody any good." Snow conducts heat badly, so plants are kept warm and vegetation favoured: witness the luxuriant growth of the Alpenrose between 1100 and 2200 metres above the sea-level.

The next chapter considers the nature of sunlight, its effects on plants, men, and bacteria. The interesting observations of Downes and Blunt are quoted, which demonstrated how injurious light is to the development of the lowly organisms associated with putrefaction, direct sunlight being more powerful than diffused daylight; germs might be destroyed thereby, the violet end of the spectrum being the strongest in this respect. There is a chapter on the atmospheric pressure, its variations at different latitudes and heights, its periodical and irregular fluctuations, with what is known of the influence of height on the former, and the causes of barometrical deviations generally. The physiological effects of increased and diminished pressure of the air, currents of air, sea and land breezes, mountain and valley winds, and so forth, also receive due attention. Then follows an account of what is known of the electrical state of the air.

In the second section the various climates are divided into sea, island, and coast. Concise descriptions of the weather of multifarious parts of the world are the chief feature of this portion of the book, which is thereby made of real value for purposes of reference. There is a secondary division of climates according to the moisture and temperature of the sites mentioned. A prolonged chapter on mountain climes, with a shorter one on low-level resorts, finishes the second section. We shall speak elsewhere on the physiology and therapeutics of high altitudes, and so will say nothing of Dr. Weber's teachings on this department in this notice. The concluding chapters deal with the use of "cures" in the treatment and prevention of disease. The article finishes with what may be termed home-hygiene.

Dr. Leichtenstern's subject is an almost exhaustive treatise on Hydropathy. The physiological and therapeutical actions of baths and of various natural waters are thoroughly entered into. The chemical composition of the different forms of mineral waters and springs is given. A long chapter gives the empirical indications for the choice of one water or another in diseases of the respiratory, circulatory, nervous, digestive, and urinary organs, as well as in general diseases, such as gout, scrofula, rheumatism, diabetes, and the like. Descriptions of milk and grape cures, and the various *armamentaria* of modern therapeutics, are a main feature in the work. It is not possible in the space at our disposal to enter into any particular portion. We may, however, mention Dr. Leichtenstern's predilection for artificial mineral waters. We have no fault to find with the information which is here lavishly displayed. In the present infantile state of our knowledge of the benefits which may or may not be attributed to baths and cures, we do not think this work of reference premature or uncalled for; quite on the contrary, without such efforts we can hope to learn but little. It is conceivable and possible that a certain bath or water of natural origin may affect a diseased organ for its benefit quite apart from the mere change of climate, scenery, hygienic conditions, and the like, which are always associated with the taking of this or that *cure*. We congratulate the authors on the successful accomplishment of their respective tasks.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Mr. W. Morrison obtained the first Entrance Scholarship, value £30, and Mr. G. H. Bidon the second Scholarship, value £20, at this School.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, October 31.

OPENING OF THE MEDICAL SESSION IN THE HOSPITALS AND SCHOOLS OF DUBLIN: ST. VINCENT'S HOSPITAL, THE ROYAL COLLEGE OF SURGEONS, MATER MISERICORDIÆ HOSPITAL, CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.

ST. VINCENT'S HOSPITAL, in Stephen's Green, led the van this year in the opening of the winter session, an inaugural address having been delivered by Dr. F. J. B. Quinlan, Senior Physician to the Hospital, on Thursday, October 26. Dr. Quinlan selected for his subject recent researches upon infective zymotic diseases and upon the etiology of tubercular phthisis. On this latter point he said:—"Up to a recent period it was generally believed in these countries that pulmonary consumption, although of a hereditary type, was not an infective disease. In Southern Europe the contrary opinion has always prevailed; and even here cases occurring of undoubted communication of the malady between individuals brought in close personal contact, caused many a doubt to the thoughtful physician. The matter was set at rest by the discovery of Villemin that tubercle was inoculable; and this was followed up by Koch, of Berlin, who discovered the tubercle bacillus, cultivated it, and communicated it to animals. This bacillus is a species of alga, and is found swarming in phthisical cavities and in the expectoration of consumptive patients. Externally it is very similar to other parasites which have nothing to say to tubercle. Herr Koch pointed out that the tubercle bacillus can be easily distinguished from all others by its behaviour in the presence of certain aniline dyes. As this bacillus is about the third of the size of a blood-globule, any reasonably good microscope will detect it; and we have the diagnosis of pulmonary consumption thus reduced to the simplicity and exactness of a chemical test. The matter was now taken up by the German Government, who established the Imperial Health Office (the creation of Prince Bismarck), appointed Koch as its Director, and made him a Councillor of State—for in Germany medical science is honoured and decorated, instead of being hunted into foreign countries by Anti-vivisection Acts. Supplied with ample means, Koch pursues his investigations in a spacious building, and provided with all necessary assistants and accessories. The animals experimented upon are all kept in cages, and each cage represents an experiment; and the greatest care is taken to secure proper ventilation and to avoid all causes of disease arising from defective hygiene. There are curious differences in the susceptibility of different animals to tubercular infection. Rabbits and guinea-pigs are most susceptible, and barn-door fowls still more so. It was at first believed that dogs could not be infected; but it has been found that they can, especially if wholly fed on vegetables. As a rule, herbivorous animals are much more susceptible than carnivorous—a fact which explains the well-known potency of a meat and nitrogenous diet in saving consumptive patients. Further, an abundance of pure air constantly changed is a great protective, and air for a long time re-breathed, an injury—another striking analogy. Consumptive infection is carried by the breath or expectoration of consumptive patients; and there is no doubt that while many persons are very susceptible to infection, particularly when in a lowered state of health or badly nourished, or when the tendency is hereditary, many others are not susceptible at all." It will be observed that Dr. Quinlan accepts as fully proved the infective nature of tubercular phthisis, and the tubercle bacillus as the cause of the disease. In concluding his instructive and interesting address, Dr. Quinlan alluded to the opening of a new wing to the Hospital, which placed 100 beds at the disposal of the staff.

On Monday, October 30, the address introductory to the winter session of the Royal College of Surgeons was delivered in the lecture theatre to a large concourse of students, and in presence of the President, Vice-President, and many of the Council, Examiners, and Professors of the College. The lecturer was Dr. Jacob, Professor of Ophthalmic and Aural Surgery. He remarked that this was the first occasion on which he had the honour to assume in its full entirety the mantle of his worthy and beloved father, who, in 1816, at the early age of twenty-three, became a Fellow

of the College. They had met under circumstances of very especial interest and importance for surgery in Ireland. They were drawing to the close of the hundredth year of the College's existence; and they had the gratification of finding themselves inaugurating a new school, provided with every appliance for enabling the student of surgery to attain the highest proficiency in his profession. They had established a new system of examination, which was nothing short of a regeneration of their work of teaching, and had just held their first examinations under it. He addressed them, furthermore, on the eve of Parliamentary legislation of a medical character which must produce results of highest importance to that College and to the profession generally. As this would be the session of the hundredth year of their existence, he proposed to sketch the course which the College had pursued since its foundation on February 11, 1784, when the original Charter of the Royal College of Surgeons in Ireland was granted. In conclusion, the lecturer addressed the students, and introduced to them the newly appointed Professor of Anatomy, Dr. Cunningham, late of Edinburgh, whom he described as a man of indefatigable work, great skill, and immense intelligence.

At the Mater Misericordiæ Hospital, Mr. Hugh Kennedy, one of the Surgeons of the institution, delivered the inaugural address. Having dwelt upon the advantages of careful clinical study, the lecturer referred to the necessity for a close attendance in the fever wards of a hospital. "The College of Physicians," he said, "showing their full appreciation of a knowledge of fever, have rejected the certificates of purely accident hospitals as inadequate. They now require a special certificate in fever. Men of the highest ability have devoted themselves to the investigation of these diseases, and have left us in their works enduring records of their great talents and industry. The author of a most valuable work on fevers is one of the present members for Dublin, to whom indeed we also owe the rejection of a Bill that, if once made law, would compel us to become the public informants of domestic affliction, and would destroy the confidential relations that exist between patients and their doctors. If I may digress for a moment and hazard an opinion on this subject, I would say that the State will hardly enact a law to enforce a violation of such solemn confidence; nor do I think it within the power or right of a State to compel a gentleman, over whom it can have no control, to reveal a knowledge acquired under such exceptional and trying circumstances. We all know that the natural guardians of families are only too eager to adopt the sanitary suggestions of their medical attendants; and it can be easily understood how strongly they would resist, during a time of grief, the vexatious visits of sanitary inspectors. The medical gentlemen entrusted by the public with the health of the poor can do all that is necessary. Let the arduous labours of these gentlemen be more fully appreciated and more generously rewarded, and let it be incumbent on them to report on the sanitary condition of the poor of their respective districts, and have power to remove any and every cause of contagion. To do more than this would be to increase the danger to the public health by inducing the concealment of contagious disease, and, consequently, the neglect of the necessary precautions." It is not to be assumed that Mr. Kennedy's audience unanimously endorsed his views on compulsory notification, but the remainder of his address was admirable.

In the Catholic University School of Medicine there was no formal introductory address delivered this session, but on Monday Dr. Coppinger, the Dean of the Medical Faculty, in commencing the course of lectures on physiology, briefly addressed the students, calling their attention to the growing importance of this subject, and to the alterations and improvements that have recently been made for its teaching in the School, including the new histological laboratory.

The lecturer also alluded to the large number of students present who were preparing for the examinations of the Royal University of Ireland.

Removal of Ink-spots.—It is usual to effect this by the employment of chloride of lime or oxalic acid, which, however, take out the colour in coloured objects, and give rise to new spots. The best plan is to use a phosphate of soda, first of all spreading a few drops of melted suet over the ink-spot, and then washing the substance in the saline solution until the spot disappears.—*Jour. de Phar. d'Anvers.*

GENERAL CORRESPONDENCE.

"THE SAFEGUARDS OF THE INSANE."

[To the Editor of the Medical Times and Gazette.]

Sir,—Your article of October 28, on "The Safeguards of the Insane," is one that might be reprinted with advantage by every newspaper throughout England, and I would go far to allay the popular prejudice against asylums.

I cannot, however, agree with the suggestion that a "coroner's inquest" should be held in every case of death in asylums. I believe this would tend to keep alive the prejudice, would be very painful to the friends of patients, and would entail a great waste of the time of the medical officers already over-taxed. Moreover, in the case of large asylums in a comparatively rural district, great hardship would be inflicted on the limited number of local jurymen in having to attend two or three hundred inquests annually.

Sufficient safeguard already exists in the fact that medical superintendents report to the coroner and Commissioners on any unusual circumstances attending the death of an inmate.

I am, &c.,

October 28. A Medical Superintendent.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

Friday, October 27.

Joseph Lister, F.R.S., President, in the Chair.

Gunshot Injury of the Lower Jaw.

Mr. W. J. Walsham narrated this case. H. W., a woman, aged twenty, was admitted into the Metropolitan Free Hospital, under Mr. Walsham's care, on July 16, having been shot at with a revolver. The wound was situated about an inch above the angle of the jaw, and passed in a direction backwards, inwards, and upwards. The wound was enlarged, and the jaw was found perforated. The finger could be passed as far as the first inter-phalangeal joint, but neither with it nor with a probe could the bullet be felt. On examining the mouth a slight fulness above the right tonsil was seen, but there was no wound or definite indication of the bullet. Considering the importance of the structures amongst which the bullet was evidently embedded, it was not deemed prudent to endeavour to extract it. The patient was quieted by opiates, and water dressings were applied to the wound. Considerable swelling about the angle of the jaw in the region of the tonsil supervened, accompanied by a constant dribbling of saliva from the mouth. On the 25th a spiculum of bone, accompanied by a small portion of the crown of the wisdom tooth, and on the 26th the bullet, with the remainder of the wisdom tooth embedded in it, were discharged. The patient progressed satisfactorily, and left the hospital on August 16 with the wound nearly healed. Mr. Walsham remarked that, in addition to other points of interest, the chief lay in the question of treatment. Three distinct courses presented themselves—to attempt the extraction of the ball through the external wound, to cut down upon it and remove it through the mouth, or to leave it in the hope that it might escape spontaneously or become encysted. The objections to the first were that a large portion of the jaw would have to be cut away to obtain room for the necessary manipulations, that the exact situation of the bullet was not known, and that there would have been considerable risk of wounding some of the large vessels and nerves through which the bullet had evidently passed. Against the plan of removing it through the mouth the fulness about the tonsil did not seem to point sufficiently clearly to that being the situation of the bullet to justify an incision in such a dangerous situation. The course pursued in face of these considerations was to leave the bullet to come away spontaneously.

The President observed that the case was remarkable in that there was perforation of the lower jaw without fracture. No doubt the course of treatment adopted was right. It

had been shown that more harm than good might be done by searching for the bullet, and experience had taught that the presence of such a foreign body was less to be dreaded than was formerly supposed. He thought that the antiseptic dressings ought to have been adopted, as there was no communication with the mouth, and the risk of secondary hæmorrhage and profuse suppuration would have been thereby greatly lessened, if not completely removed.

Mr. Walsham, in reply, said he had dismissed the notion of using antiseptics because of the difficulty of rendering the gunshot wound aseptic, for there was probably other foreign stuff in the wound besides the bullet.

The Common Carotid Artery Successfully Tied for Severe Bleeding from the Throat after an Attack of Scarlet Fever.

Mr. A. J. Pepper read the notes of this case. C. W., aged thirty, was admitted under the care of Dr. Mahomed on January 2, 1882, suffering from scarlet fever, which ran a simple course with ordinary convalescence until February 22, when the patient shivered and complained of sore throat. Temperature 101·6 Fahr. On the morning of the 23rd the uvula was large and translucent, and the soft palate red and swollen. On the 24th he complained of great difficulty in swallowing, and throbbing of the left side of the throat. Two hæmorrhagic patches had appeared at the junction of the hard and soft palates, with a large gelatinous blob on the left side. Three hours later the throat, especially on the left side, became rapidly swollen, accompanied by a feeling of suffocation; soon after the patient brought up a considerable quantity of blood; the swelling and difficulty of breathing then subsided, and at the same time the hoarseness passed quite suddenly into complete aphonia, which persisted. The alternate enlargement of the neck, hæmorrhage, and subsidence of the swelling were repeated several times until the morning of the 27th, when the patient's condition became critical, he having lost forty ounces of blood in all, and there being no sign of arrest of the hæmorrhage. There was a considerable bulging of the left side of the pharynx, marked dyspnœa, and aphonia. At a consultation between Dr. Mahomed and Mr. Pepper it was decided to ligature the left common carotid artery, as it was thought dangerous to cut into the post-pharyngeal abscess. The patient was put under chloroform, and the artery tied by Mr. Pepper at the upper border of the omo-hyoid muscle, considerable difficulty being caused by the greatly distended state of the veins; carbolised catgut was used, and the operation performed antiseptically. For a time respiration threatened to fail, but he rallied completely in three or four hours. Soon after the operation he brought up six ounces of pus, and there was a corresponding diminution of the swelling. The temperature at once became normal, and the wound healed readily. On April 7 there was a numbness of skin corresponding to the distribution of the superficial cervical nerve; the aphonia was only partially recovered from; there was fixation of the left vocal cord. The general health was good. Dr. Mahomed remarked that examination of the throat at the end of March showed swelling and puckering of the mucous membrane at the entrance to the larynx to be still present; both cords were normal in appearance, the right moved freely, but the left was fixed in a position of partial abduction. Secondary sore throat after scarlatina, he said, was not uncommon; it had occurred in fifty-seven out of the 3057 cases treated at the Fever Hospital during the last ten years. It resembled the condition of the throat seen in the primary attack, but had never proved fatal in cases there. Its occurrence depended upon the concentration of the poison, being more frequent when the wards were overcrowded or badly ventilated. They were, he believed, modified second attacks of the disease. Complete second attacks (with rash, sore throat, and fever) had occurred in twenty-nine cases out of the 3057, all having recovered except one, who died from other complications. These second attacks also depended upon concentration of the poison. Hæmorrhage from the throat was a rare but most dangerous complication, and might occur during the primary or secondary throat affection. It resulted either from sloughing of the soft palate, or (as in the case narrated) from opening of a vessel into an abscess-cavity. There had been six cases at the Fever Hospital during the last ten years, and all the severe ones, with the exception of the present, had been fatal. The ligature of the artery appeared to exert a very beneficial influence over the inflammatory action, which subsided most rapidly and completely.

Mr. Howard Marsh regarded the case as one of great importance; he had met with several somewhat similar cases in the course of the past ten or twelve years. A man about thirty years of age, suffering from caries of the spine with psoas abscess, when admitted into hospital was very ill. The abscess was felt to be very distended. On post-mortem examination the aorta was found to have given way into the abscess, which had not been surgically treated. In another case Mr. Morrant Baker ligatured the common iliac artery for bleeding from an abscess in the gluteal region. Again, an abscess in the ischio-rectal fossa had laid open the internal pudic artery; this case was treated by compression. In another instance a perineal abscess had bled profusely, but was treated successfully by compression. In a fifth example the common carotid was tied, but hæmorrhage went on owing to the perfect collateral circulation. A case was recorded, in the annals of St. George's Hospital, of a child who had run a piece of wood into its neck, and the surgeon had checked the bleeding by dissecting down from the surface and ligaturing the artery at the site of the wound, but this method could not be used in all cases owing to the inflammatory state of the tissues.

Dr. Dyce Duckworth was understood to say that physicians met with cases of the kind in which it was necessary that the artery should be secured.

Mr. Cripps said he held very strong opinions on the subject of ligature of the common carotids. He had collected fifty cases in which this operation had been done for accidents and sloughing. Ligature of the common carotid was very dangerous. The amount of mortality was 56 per cent., being higher when the artery was secured for bleeding than when tied for aneurism. Thirty per cent. of the patients died with brain symptoms, and in 30 per cent. the operation was useless. The operation should be done only as a last resource. The proper artery to deligate was, in his opinion, the external carotid, because if the bleeding were due to opening up of the internal carotid it would most likely be uninfluenced by securing the common carotid. By deligating the external carotid the brain symptoms were done away with, and although it might be thought that there would be greater danger from recurrent hæmorrhage, yet experience had taught that such was not the case, and no surgeon should be led to reject the ligature of the external carotid because it was harder to find than the vessel lower down.

Mr. Pepper asked whether the cases had been treated antiseptically.

Mr. Cripps replied that he believed not; but the use of antiseptics would not have hindered the development of cerebral mischief.

Mr. Godlee also related a case, which was under the care of Mr. Berkeley Hill at University College Hospital, of caries of the last dorsal vertebra, with discharging abscesses in the groin, which were dilated, and went on well enough for a time, but finally led to the man's death by opening up the adjacent vessels.

Mr. Blake had seen an instance of bleeding from an abscess in the tonsil, for which the common carotid was deligated. After death the internal carotid artery was found to have sloughed.

Mr. Barker asked whether the bleeding spot was to be seen in Mr. Pepper's case.

The President regarded the case as of great interest. The treatment, no doubt, should be first locally hæmostatic, but that was impossible in the present example. He believed that the bleeding in these instances comes from a small arterial branch. The fact that tension or irritation of the wall of an abscess could lead to troublesome bleeding should not be lost sight of. He had had an instance of the sort in a case of extirpation of the mamma during the last summer session at King's College. He was inclined to agree with the remarks made by Mr. Cripps. He attached great importance to the cases narrated by Mr. Marsh, because there had been ulceration and destruction of vessel, and yet the abscess had not been opened externally. This was considered to be such a rare thing that the celebrated case of Liston was regarded as an aneurism, but Liston affirmed it to be an abscess which had laid open the neighbouring artery; and no doubt he was right, for it was now made perfectly clear that such things occurred.

Mr. PEPPER, in reply, said he had not acted on the spur of the moment, but had carefully deliberated in consultation with Dr. Mahomed what course should be pursued. He did not think then or now that the vessel which yielded forty ounces of blood in ten hours was a small branch. He could not agree with Mr. Cripps, for anatomists knew how variable was the site at which the ascending pharyngeal came off, and Professor Ellis had stated its origin from the bifurcation of the common carotid. Moreover, a great swelling in the neck precluded the possibility of tying the external carotid, especially in his case, without endangering the aseptic condition of the intended wound, for he was afraid of laying open the septic cavity of the abscess. No bleeding point was to be detected when the patient was seen by him, nor did he believe that so much blood could come so suddenly from the granulations lining the abscess.

DR. MAHOMED could testify to the care and forethought which Mr. Pepper had exercised in determining which artery should be ligatured. Bearing in mind the number of instances which surgeons had narrated during the evening, of bleeding from arteries destroyed by neighbouring abscesses, he was led to contrast the rarer experience of physicians in cases of pulmonary abscesses. We must be very careful how we deal with large fluctuant swellings arising in the course of splenic leukæmia. One case of this kind had come under his care at Guy's Hospital, which led him to make that remark, for by his directions this supposed abscess was laid open by his colleague, Mr. Symonds, and the hæmorrhage which resulted was most difficult to stop; the swelling, indeed, was a blood extravasation.

BILHARZIA HÆMATOBIA.

Dr. RADCLIFFE CROCKER showed the ova and embyros of *Bilharzia hæmatobia*, and related a case of hæmaturia produced by that parasite, which came under the care of Dr. George Bird at the beginning of the year. The patient was a boy at school, aged thirteen. He was born in the Orange Free State, but appears to have caught the disease in Natal, where he passed blood both by the urethra and bowel, and had been treated for dysentery. A few months after his arrival in England, hæmaturia recurred in considerable quantity, and produced so much dysuria as to necessitate the use of the catheter; and a small clot of blood which clung to the eye of the instrument having been examined by Dr. Crocker, the characteristic ova of *Bilharzia hæmatobia* were discovered. All troublesome symptoms soon disappeared, and, with the exception of slight anæmia, the boy seemed to be in good health; nevertheless, the parasites are still present, and ova and a little blood were found in all three specimens of urine passed at different times of the day on October 4. The spine on the ovum was always terminal, as is usual in those discharged from the veins of the bladder, and the head of the embryo showed no special preference for the spine end of the ovum. As the disease usually gets well spontaneously after puberty, no local treatment for the destruction of the parent distoma had been employed. In blood taken at night from the finger no *Filariæ sanguinis hominis* were discovered. The two diseases have been rarely found together.

Mr. PEPPER desired to know what good could come of using vesical injections to destroy the parasite, having regard to the fact that the disease extends throughout the urinary tract.

Dr. CROCKER said the treatment was not suggested by him, but by Mr. Allen, of Natal. It might be that some cases chiefly affected the bladder; santonin had been given internally, in addition to the vesical treatment.

The PRESIDENT thought the members of the Society fortunate in having the chance of inspecting the actual living specimens as well as the ova of the *Bilharzia hæmatobia*.

The meeting then adjourned.

ODOUR OF IODOFORM.—Having tried nearly all the devices that have been suggested for mitigating or disguising the odour of iodoform, and found them all of little or no avail, we have lately come nearer to the object by using oil of eucalyptus according to the following formula:—R. Pulv. iodoform. ℥ss., eucalypt. ℥ss., vaselin. ℥iv., m. ft. unguent. This ointment is not without odour, but the odour is not that of iodoform.—*New York Med. Jour.*, October.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members on October 26:—

Benham, Frederick Lucas, M.D. Lond., Notting Hill, W.
Edwardes, Edward Joshua, M.B. Lond., 55, York-street, W.
Oliver, Thomas, M.D. Glasg., Newcastle-on-Tyne.
Oxley, Alfred James Rice, M.B. Dub., Junior Oxford and Cambridge Club, S.W.

The following gentlemen were admitted Licentiates on the same day:—

Abrath, Gustav Adolph, M.D. Heidelberg, Sunderland.
Adkins, George, London Hospital, E.
Beattie, Henry, jun., 37, Albert-square, E.
Birch, Henry Priestley, 61, Harley-street, W.
Birt, Cecil, Wadsley, Sheffield.
Bollen, Frederick James, South Australia.
Crick, William Throne, 50, Fentiman-road, S.W.
Dale, Walter Frederick, London Hospital, E.
Déquet, Laurent, St. Mary's Hospital, W.
Dixon, Henry Charles, Portinscale-road, S.W.
Dun, Walter Angus, M.D. Miami, 79, Queen-street, Cheapside, E.C.
Howard, Robert Jared Bliss, M.D. McGill, 103, Guilford-street, W.C.
Hull, Walter, Swallow-place, W.
John, David, Swansea.
Khan, Mohamed Ismail, 18, Montague-place, W.C.
Massey, Henry Massey, Peckham-road, S.E.
Myles, James Perceval, St. Matthias Vicarage, Bristol.
Paniety, John Emanuel, 28, Green-street, W.
Penn, John Evans, 4, Cumberland-terrace, W.C.
Powell, John James, jun., Heathlands, Weybridge.
Robinson, Frederick Gardner, Pendleton, Manchester.
Sinclair, John, Queen Adelaide's Dispensary, Bethnal-green, E.
Skipper, Edward, University College Hospital, W.C.
Stead, Geoffery, Birmingham.
Thane, Philip Thornton, 15, Montague-street, W.C.
Tripp, Charles Llewellyn Howard, Royal Free Hospital, W.C.
Williams, Edward Richard, St. Bartholomew's Hospital, E.C.
Wise, Charles Henry, Westminster Hospital, S.W.
Wöhrnitz, Ferdinand Broer Mathieu, 89, Albert-street, N.W.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 26:—

Bassett-Smith, Percy William, 62, Alexandra-road, N.W.
Wildey, Alexander Gascoigne, Dunbar House, Southsea.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Kirby, Alfred, Middlesex Hospital.
Sheppard, Henry Anderson, Charing-cross Hospital.
Tuckett, Walter Reginald, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

ROPER, ARTHUR CHARLES, M.R.C.S. Eng., L.R.C.P. and L.M. Edin.—Registrar to the West of England Eye Infirmary, Exeter.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—Fleet Surgeon John Breakey, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of October 27, 1882.

BIRTHS.

GROUND.—On October 24, at Maidstone, the wife of Edward Ground, B.A., M.B., of a son.

ROBINSON.—On October 3, at Vellore, India, the wife of Mark Robinson, L.R.C.P., M.R.C.S., I.M.S., of a son.

SMITH.—On October 27, at 63, Richmond-road, Barnsbury, N., the wife of Gilbert T. Smith, M.R.C.S., L.S.A., of a son.

MARRIAGES.

BECKER—WALLACE.—On October 25, at Bayswater, Charles Theodore Becker, Esq., Captain of the King's Own Borderers, eldest son of C. O. G. Becker, M.D., of Colchester, to Florence Dora Anna, eldest daughter of Major-General C. J. Stuart Wallace, Esq.

HANDYSIDE—MCNICOLL.—On October 28, at St. Helen's, Lancashire, Arthur Handyside, L.R.C.P., of Earlestown, to Emily, daughter of Robert McNicoll, M.R.C.S., of St. Helen's.

PLAYFAIR—MACDONALD.—On October 26, at Claughton, Birkenhead, David Thomson Playfair, M.B., C.M., etc., of Bromley, Kent, to Catherine, daughter of James Macdonald, Esq., of Ennerdale Lodge, Birkenhead Park.

POPE—PECKHAM.—On October 25, at Pinner, Percy Pope, M.R.C.S., L.R.C.P., of Owston Ferry, Lincolnshire, to Kate Florence, fourth daughter of the late Robert Peckham, Esq., solicitor, of Doctors' Commons and Tottenham.

WOLRIGE—KEATING.—On October 26, at Bathwick, Bath, Herbert E. R. Wolrige, M.R.C.S., L.R.C.P., of East Knoyle, Wilts, to Annie Lonisa, daughter of Lieutenant-Colonel A. Keating, Retired List Madras Army

DEATHS.

KITCHENER, THOMAS, M.D., at 4, King-street, Bath, on October 19, aged 50.

PARKES, DOROTHY, infant daughter of Louis Parkes, M.B., at 6, Osnaburgh-street, N.W., on October 27.

PARNELL, RICHARD, M.D., F.R.S.E., at 17, Merchiston-avenue, Edinburgh, on October 28, in his 73rd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent. (*For particulars see Advertisement.*)

CANE HILL ASYLUM, SURREY.—Medical Superintendent. (*For particulars see Advertisement.*)

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, 191, MARYLEBONE-ROAD, W.—Two Physicians for the Out-patient Department. Candidates must be graduates in medicine of the United Kingdom, and Fellows or Members of the Royal College of Physicians in London. They will be required to attend the meeting of the Committee of Management at the Hospital on November 13, at 3 p.m., or they will not be eligible for election. Applications addressed to the Secretary, accompanied by copies of testimonials and original diplomas, will be received up to November 10.

ROYAL GENERAL DISPENSARY, BARTHOLOMEW-CLOSE, E.C.—Surgeon. Candidates must be Members or Fellows of the Royal College of Surgeons. They must attend personally with diplomas, etc., the Medical Sub-Committee on Monday, November 6, at 2 p.m., and make written application to the Committee, addressed to John Faulkner, Hon. Sec.

YORK DISPENSARY.—Resident Medical Officer. Salary £130 per year, with furnished apartments, coal, and gas. Candidates must be duly qualified and unmarried. Applications and testimonials to be sent to S. W. North, Esq., 84, Micklegate, York, on or before November 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Ashby-de-la-Zouch Union.—The Sixth District is vacant: area 14,791; population 6177; salary £48 per annum.

Launceston Union.—Mr. Pearse has resigned the Sixth District: area 3674; population 2693; salary £17 per annum. Also the Workhouse: salary £25 per annum.

Malton Union.—Mr. J. T. Sigston has resigned the Bulmer District: area 18,020; population 3113; salary £18 per annum.

Upton-upon-Severn Union.—The First District is vacant by the death of Mr. Henry Thomas Marsh: area 16,651; population 7047; salary £100 per annum. Also the Workhouse: salary £30 per annum.

APPOINTMENTS.

Dewsbury Union.—Robert Forsyth, C.M., M.D. Glasg., to the Birstal District.

Norwich Union.—William R. Spowart, L.K. & Q.C.P. Ire., L.R.C.S. Ire., to the Eighth District.

Ongar Union.—John B. G. Gidley Moore, L.R.C.P. Lond., to the First District.

St. Faith's Union.—James Fielding, M.R.C.S. Eng., L.R.C.P. Edin., to the Norwich District.

Solihull Union.—Ernest O. Stuart, L.R.C.S. Edin., L.R.C.P. Edin., L.S.A. Lond., as Assistant Medical Officer and Dispenser at the Infirmary.

Wortley Union.—James Snadden, M.B. and C.M. Edin., to the Fourth District.

MIDDLESEX HOSPITAL.—With the view of benefiting the Samaritan Fund of this Hospital, an amateur performance under the patronage of H.R.H. the Duke of Cambridge has been arranged to be given at the Imperial Theatre, on the evening of Saturday next, the 11th inst. Anyone wishing to support the undertaking by donations or taking tickets should communicate with the Chaplain, Middlesex Hospital.

MERCURIAL SALIVATION.—At a recent lecture at the Hôtel-Dieu, Dr. Panas strongly insisted on the employment of means for the prevention of mercurial stomatitis, which, in his opinion, is no indication of the system being saturated with mercury. It is a complication which greatly impedes treatment when it occurs, and which depends upon an anterior alveolo-gingival stomatitis, and may be always prevented by curing in advance, by local means, the condition of the gums and alveoli. This treatment consists first in the removal of the tartar, and then in the application of substitutive topical substances, the chief of which employed by Dr. Panas are tincture of iodine, and carbolic acid diluted to a twentieth; these substances, to be of use, being introduced to quite the bottom of the alveoli. If the gums are quite healthy, and astringents are applied daily (as tannin, catechu, etc.), they may be kept sound and healthy however long the mercurial treatment is continued; and when patients come in with ulcerated or bleeding gums, and loosened and displaced teeth, this condition of things may be remedied in a few days by the above-mentioned procedure. If such precautions be not taken, the irritating action of the mercury exasperates the stomatitis and brings on salivation. Dr. Panas considers the much-praised chlorate of potash quite inefficacious in salivation, and even capable of doing harm by the irritation it produces.—*Gaz. des Hop.*, No. 79.

ABSCESS OF CERVICAL GLANDS.—Dr. Post, lecturing on a case of this (*Phil. Med. Reporter*, September 23), after describing the ill effects which sometimes occur from opening large abscesses, owing to the admission of air and the decomposition which takes place, observes: "These unpleasant consequences are guarded against very much by 'collerider-ing' the abscess—that is, by making an opening of a moderate size, evacuating the matter, and distending the abscess with dilute carbolic acid, about one to forty (under varying circumstances it may be from one to twenty or one to fifty). When the abscess is a large one, some precautions should be used, so that no considerable quantity of the carbolic acid should remain behind to produce toxical effects on the blood. If a considerable quantity of the acid be absorbed, it produces a very depressing effect upon the system, and it may even prove fatal. But in an abscess of this size it is perfectly safe, even if you inject a stronger solution than that mentioned."

APPOINTMENTS FOR THE WEEK.

November 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

6. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 5 p.m. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 p.m. Dr. Alfred Carpenter, "On Considerations of some of the Causes which give rise to Dental Decay." Casual Communications from Messrs. Charles Tomes, Coleman, Sewill, etc.

MEDICAL SOCIETY OF LONDON, 8½ p.m. General Meeting, after which Mr. Edmund Owen, "On Two Cases of Congenital Cystic Hygroma" (living specimen). Mr. Sampson Gamgee (of Birmingham), "On the Treatment of Wounds and Fractures."

7. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Mr. W. H. Kesteven—Traumatic Hæmatoma of Vertebral Column. Dr. Hadden—1. Meningocele simulating Nasal Polypus; 2. Disseminated Sarcoma. Mr. Malcolm Morris—Xanthoma Tuberosum (with microscopical specimens). Dr. Robert Barnes—Pigmentation of the Cervix Uteri. Dr. Norman Moore—1. Double Hydrosalpinx; 2. Renal Calculus in a Child; 3. Lung with Impacted Foreign Body; 4. Ulceration of Vermiform Appendix in Typhoid Fever. Dr. Samuel West—Sarcoma of Bladder and Prostate.

8. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. William Ewart.

HUNTERIAN SOCIETY, Royal Institution (Council Meeting, 7½ p.m.), 8 p.m. Dr. Stephen Mackenzie—1. "On a Case of Hemianopœia, with Hemiplegia"; 2. "On Paroxysmal Hæmoglobinuria." Dr. Coxwell, "Demonstration of Reflexes in a Case of Hemiplegia."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Mr. T. B. Rossiter, "Observations on Stephanoceros." Dr. Maddox, "On some Organisms found in the Excrement of the Domestic Goat and the Grouse."

9. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

10. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

CLINICAL SOCIETY OF LONDON, 8½ p.m. Mr. Golding Bird, "On a Case of Removal of the Uterus for Fibroid Disease" (specimens shown). Mr. Clutton, "On a Case of Spina Bifida." Mr. C. Heath, "On a Case of Separation of the Epiphysis of the Clavicle by Muscular Action." Dr. Goodhart, "On Six Cases of Diphtheria treated by the Local Application of Borax or Boracic Acid." Mr. Golding Bird will exhibit a case of Transpatellar Excision of the Knee.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 28, 1882.

BIRTHS.

Births of Boys, 1336; Girls, 1234; Total, 2570.
Corrected weekly average in the 10 years 1872-81, 2071·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	767	699	1466
Weekly average of the ten years 1872-81, corrected to increased population ...	819·9	763·2	1583·1
Deaths of people aged 80 and upwards			51

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669638	...	5	10	3	6	...	7	1	6
North ...	905947	2	10	13	2	6	...	8	...	8
Central ...	282238	...	7	6	...	...	...	4	...	1
East	692738	1	6	20	2	4	...	4	2	1
South	1265927	...	17	18	2	2	...	9	...	9
Total	3816483	3	45	67	9	18	...	32	3	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·249 in.
Mean temperature	45·9
Highest point of thermometer	56·0°
Lowest point of the thermometer	30·6°
Mean dew-point temperature	43·1°
General direction of wind	S.W. & N.E.
Whole amount of rain in the week	2·31 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Oct. 28, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Oct. 28.	Deaths Registered during the week ending Oct. 28.	Annual Rate of Mortality per 1000 living.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2570	1466	19·6	56·0	20·6	45·9	7·72	2·31	5·87
Brighton	109595	51	39	18·6	59·0	38·8	47·4	8·55	2·16	5·49
Portsmouth ...	129916	96	55	22·1	...	...	...	...	...	...
Norwich	88821	65	45	26·4	...	...	...	...	...	...
Plymouth	74449	37	35	24·5	58·0	36·0	47·0	8·33	1·67	4·24
Bristol	210134	124	68	16·9	55·2	32·8	44·4	6·89	4·18	10·62
Wolverhampton ...	76756	51	27	18·4	55·2	30·9	42·5	5·81	2·02	5·13
Birmingham ...	408532	296	161	20·6	...	...	...	...	...	...
Leicester	126275	102	42	17·4	55·5	31·8	43·7	6·50	1·81	4·60
Nottingham ...	193573	133	82	22·1	56·0	30·3	42·8	6·00	2·43	6·17
Derby	83587	58	36	22·5	...	...	...	...	...	...
Birkenhead ...	86587	58	47	28·3	...	...	...	...	...	...
Liverpool ...	560377	382	273	25·4	59·3	35·4	45·3	7·39	0·49	1·24
Bolton	106767	70	41	20·0	51·2	34·0	42·6	5·90	0·94	2·39
Manchester ...	340211	228	155	23·8	...	...	...	...	...	...
Salford	184004	132	62	17·6	...	...	...	...	...	...
Oldham	115572	95	65	29·4	...	...	...	...	...	...
Blackburn	106460	66	47	23·0	...	...	...	...	...	...
Preston	97656	77	64	34·2	...	...	...	...	...	...
Huddersfield ...	83418	52	37	23·1	...	...	...	...	...	...
Halifax	74713	46	34	23·7	...	...	...	...	...	...
Bradford	200158	134	85	22·2	53·0	34·8	43·6	6·45	0·98	2·49
Leeds	315998	213	160	26·4	56·0	33·0	44·4	6·89	1·36	3·45
Sheffield	236516	194	124	22·3	53·6	31·0	43·7	6·50	1·78	4·52
Hull	158814	104	57	18·7	55·0	32·0	44·2	6·78	2·47	6·27
Sunderland ...	119065	79	75	32·9	62·0	35·0	47·9	8·83	0·94	2·39
Newcastle	147626	118	54	19·1	...	...	...	...	...	...
Cardiff	85724	74	41	24·7	...	...	...	...	...	...
For 28 towns ...	8469571	5681	3477	21·4	62·0	30·8	44·7	7·06	1·82	4·62
Edinburgh	232440	126	79	17·7	53·6	29·9	43·6	6·45	0·21	0·53
Glasgow	514048	357	253	25·7	52·2	27·7	42·7	5·95	0·70	1·78
Dublin	348293	170	150	22·5	54·6	36·3	43·7	6·50	1·20	3·05

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·25 in. The lowest reading was 28·61 in. at noon on Tuesday, and the highest 29·41 in. on Wednesday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A CORRECTION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your issue of the *Medical Times and Gazette* for Saturday last you have my name incorrectly quoted as "Elston" instead of Ackland in the list of Licentiates in Dental Surgery. It should be—Ackland, John McKno, Elstow, Exeter, of Dental and Charing-cross Hospitals. Attention to this will oblige Yours truly, J. McKNO ACKLAND.
Charing-cross Hospital, London, W.C., November 2.

A. G. Hakim, Esq., Mhaswad Rajwadi, Satara District, India.—Letter and enclosure received.

L.R.C.P. Lond., Brighton.—Dr. William Macmichael graduated M.D. at Oxford, and not Cambridge. He was the author of "The Gold-headed Cane," giving biographical notices of all those physicians by whom the cane was carried until presented by Dr. Matthew Baillie to the Royal College of Physicians, in the library of which institution it is to be seen.

Dr. Thornton, Oxford.—It is Nicolaus Leonicenus, who died in 1524, to whom we are indebted for the first translation of Galen's works.

Another Football Casualty.—At Lincoln, on Saturday week, a serious accident befell a player. He received a kick on the shin, causing a bad compound fracture of the leg. The youth was removed in an unconscious state to the Lincoln Hospital.

Guy's Hospital.—Dr. Steel, of Guy's Hospital, at a coroner's inquiry held by Mr. Payne the other day, opportunely explained that the reason why patients had frequently to be refused admission to that institution was simply because there was no room for them. Guy's and St. Thomas's are the only hospitals for the reception of accident cases in the South Metropolitan District, and as the population is constantly increasing, without a corresponding addition in the ward accommodation at these hospitals being provided, they are unable to meet the growing demands made upon them. Moreover, the income of Guy's is derived from landed property, and it has been seriously falling off through the agricultural depression. It is stated that the loss has been £16,000 a year for several years past. One ward, in fact, has had to be closed altogether.

St. Bartholomew's.—Some time in this month. You should look at our advertising columns, or write to the Secretary of the College.

St. Luke.—Write to Dr. Meadows. The late Dr. William Stroud was the author of "A Treatise on the Physical Cause of the Death of Christ, and its Relation to the Principles and Practice of Christianity," 8vo, 1847: and also "A Harmony of the Four Gospels."

Sewerage Work: a Contention.—An important inquiry has been opened before the Brighton County Court Judge on a question involving a large outlay, and the result is looked for with considerable general interest. Some years ago the sewage of Brighton was carried into the sea at the nearest points, but during the last ten years great expense has been incurred in carrying it some miles from the town before it can fall into the sea, the operations being controlled by a Sewers Board elected under a special Act. Extra outfalls for storm-water are required in the Hove District, and the Sewers Board seek to compel the Hove Commissioners—a local authority under the Act—to construct them. To this the Commissioners object, chiefly on the ground that the work, if necessary, devolves on the General Board; and it is this dispute which his Honour has had to investigate as the arbitrator.

Poisonous Dyed Stockings: a Fatality.—A few days since, Sir John Humphrey held an inquiry as to the cause of the death of a boy, aged eight years, and the evidence, including the medical, was to the effect that the death of the child was caused by the action of the dye used in staining the wool on an abrasion on one of his heels. Sir John remarked that several striking proofs of the danger to be apprehended from wearing stockings stained with poisonous dyes had come under his notice.

Mr. Cornish.—Each of the Professors of the Royal School of Mines receives the same salary as Professor Huxley, viz., £200 per annum.

Mr. Williams.—The salary of the late Dr. Walter Lewis as Chief Medical Officer of the General Post Office was £1000 per annum. Mr. George Carrick Steet, the second, receives £225; he is a Fellow of the Royal College of Surgeons by examination.

Staff-Surgeon R.N.—The Medical Inspector in the Customs establishment, Dr. Walter Dickson, of the Royal Navy. The salary attached to the office is £500 per annum. Unable to answer your second question.

A Tectotal Athletic and Social Club.—A club under this designation is in course of formation, one of the objects of which is to practically demonstrate that a club consisting entirely of total abstainers from intoxicating drinks can successfully compete with other clubs in all athletics and all intellectual amusements. This object is certainly a very good one, but we should think it would be difficult to find anyone to deny that total abstainers can equal moderate drinkers, not only in athletics and "all intellectual amusements," but also in all intellectual pursuits.

English Benevolence in Paris.—Mr. Henry Dodd, an English gentleman, has left £5000 to the Paris Hospital for Children.

A Nursing Institute, South Wales.—An influential meeting, which was well attended by medical men, has been held at the Swansea Hospital to consider the advisability of establishing a nursing institute for Swansea and South Wales. The Earl of Jersey presided. It was resolved to establish such an institute, and a committee was formed for that purpose.

G. Santon' B.—There are now twenty-three towns in which the notification of infectious diseases has been made compulsory.

The Jerry Builder's Mortar.—A builder, of Buxton House, Lower Sydenham, has been summoned, at the instance of the Metropolitan Board of Works, for using bad mortar in his building work at Bell Green, and fined £3 and costs. The defence was that the mortar was not the best that could be used, but as good as that employed in speculative building. The defendant intimated that he should appeal. The fines imposed in these cases are not nearly severe enough to have any deterrent effect.

Putrid Rabbits.—A provision dealer, carrying on business in the Victoria Dock-road, the Old Kent-road, and elsewhere, has been fined £50 for exposing for sale a large number of putrid rabbits. The magistrate reminded the defendant that he had incurred a penalty of over £1800. For each of the ninety odd rabbits that were seized he could have been fined £20.

Winter Industry Items.—The three Australian colonies represented at the International Wine Exhibition held at Bordeaux under the auspices of the Local Société Philomatique have been very successful in securing in the aggregate seventy-nine prizes—sixteen were gold, and twenty-nine silver medals. The success thus achieved by the colonial *vignerons* will, no doubt, give an impetus to viticulture in Australia.——During the recent Wine-growers' Congress in Saragossa some curious statistics were read, which show the vast increase in the culture of vines that produce the common red and white less fortified wine, on account of the growing demand for these qualities in France, the North of Europe, South America, and even England—in fact, France, like England, nowadays imports steadily increasing quantities of light, natural, and less alcoholised wines, red and white, and an annually decreasing quantity of heavier and highly alcoholised sherry and strong wines.

Sunday Closing, South Wales.—At the Denbigh Quarter Sessions, last week an alarming increase of drunkenness was reported by the Chief Constable, which, he stated, is greatly owing to the fact that, since the Welsh Sunday Closing Act came into operation, people have taken to the habit of drinking their "Sunday beer" after leaving the public-houses at closing time on Saturday night.

Burnley Water-supply.—It has been unanimously resolved by the Town Council to apply to Parliament for an Act for powers to construct a reservoir at a cost of £61,000.

St. George's, Hanover-square.—Touching the deaths in this parish, which were in excess of the annual average for the preceding ten years, Dr. Corfield, the Medical Officer of Health, states that the high gross total is accounted for by the fact that no fewer than 812 of the deaths occurred in public institutions in the parish, the share of St. George's in the mortality occurring in all the institutions in the metropolis during the period being strictly only 394. Dr. Corfield comes to the conclusion that the death-rate in the parish was a trifle below the low rate of seventeen per thousand, and was, in fact, lower than that of any year hitherto recorded, except 1880. Adulteration steadily continues in the parish, as is shown by the fact that the total number of samples of food and drink of all kinds analysed during the year, as well as the number found to be adulterated, were almost exactly identical with the numbers during the previous twelve months.

Vegetarians.—The *Citizen* states that at three vegetarian restaurants in the City of London the dinners daily served average 1550.

Sanitary Works, Cannes.—It is stated that in Cannes the drainage works have come to a standstill for awhile, but will be recommenced next spring. The improvement of the drainage of a town so large as Cannes cannot be finished in one year; but the urgent and most necessary works have been finished, and within a year or two Cannes will have something approaching to perfect drainage.

A New Sanitary Provision, Paris.—The French Prefect of Police has just had three carriages specially constructed for removing to the hospitals persons suffering from small pox, to be kept in readiness at the Hotel-Dieu, in Paris. Hitherto public omnibuses and cabs have been used, and complaints have frequently been made that they have been insufficiently disinfected. The relatives or friends of a sick person requiring to be transported to a hospital will have to present a medical certificate to the district commissary of police, who will at once telegraph the necessary instructions to the Hotel-Dieu, giving the name and address of the applicant. Before starting the driver of the vehicle will receive instructions as to what hospital will be prepared to receive the patient.

Cyprus from a Sanitary Point of View.—Sir Robert Biddulph states that he has little doubt that in a few years hence Mount Troödos will have become a favourite summer resort for residents in Egypt and Syria, to which end the Government have recently approved an ordinance for facilitating the granting of leases of land at this spot for building purposes. As a military sanatorium, adds Sir Robert, Mount Troödos is probably unrivalled, and it will afford a cool retreat for English troops during the months of June, July, August, and September.

The Howard Association.—One of the points to which, during the year, this Association has had to draw the attention of the authorities of our county and borough gaols, is the impression which has been made in some quarters by the very weakly and diseased condition in which many short-term prisoners have been discharged—a condition by which they are disqualified from obtaining an honest living by labour. The dietary of prisons is not insufficient; but there is one special scale of dietary for the lowest or penal class, which is admitted by medical authorities to be dangerously meagre, at least, if used in conjunction with prolonged hard labour and the tread-wheel and the plank-bed. A very low dietary, or hard labour, or the tread-wheel, or the plank-bed may be usefully deterrent; but the combination of the whole at once may be cruel, and even fatal. At recent inquests on the bodies of several short-term prisoners grievous complaints have been made as to the effects of this combination of penal agencies.

Badly Ventilated Tramcars.—Dr. Russell, the Medical Officer of Health, in his last report to the Glasgow Town Council, dwells at considerable length on the ventilation of tramcars. He states that, unless every means were adopted to ventilate and keep them clean, they would do more than any other agency to spread infectious diseases, especially those of children. The Council adopted the recommendation of the Health Committee, that the tramway company's attention be drawn to the subject, with a view to steps being taken by them for complying with Dr. Russell's suggestion, and also that the matter should be brought under the notice of the magistrate's committee at the meeting for granting certificates for stage carriages, in order that all tramway cars may be sufficiently ventilated. How are the omnibuses in this respect in Glasgow? In London they are infinitely worse than the tramcars.

Public-House Property in London.—Several public-houses in London and the suburbs were submitted for sale by public auction in the City last week. To take note of only two of the lots. A tavern in the Strand, "commanding a trade of a most profitable and independent character, with a long-running lease," was knocked down for £4100, although the auctioneer stated that the same property fetched a very short time ago £6000. For a public-house in Fleet-street, at the same sale, a bid of £1820 only was obtained, though recently, according to the statement of the auctioneer, £5000 was the purchase-money paid by the late occupier. The sale was withdrawn.

COMMUNICATIONS have been received from—

Mr. Douglas Galton, London; Mr. Gustav Fischer, Jena; Mr. Geo. Bartlett, London; Dr. Robert Saundby, Birmingham; The Local Government Board, London; Mr. H. E. Armstrong, Newcastle-on-Tyne; The Registrar-General for Ireland, Dublin; Mr. John Broadbent, Liverpool; The Editor of the "New York Medical Journal and Obstetric Review"; Dr. Gillespie, London; Surgeon-General C. R. Francis, London: Dr. A. Money, London; Mr. Stanley Boyd, London; Dr. A. James, Edinburgh; The Hon. Secretary of the Medical Society of London; Mr. J. Chatto, London; The Registrar-General for Scotland, Edinburgh; Mr. Clement Lucas, London; The Hon. Secretary of the Odontological Society, London; Mr. A. C. Roper, Exeter; The Secretary of the Royal Institution, London; Mr. W. W. Reeves, London; The Sanitary Commissioner for the Punjaub, Lahore; Dr. S. Coupland, London; Dr. W. H. Corfield, London; Dr. J. W. Moore, Dublin; Dr. Kesteven, Enfield; Dr. Matthews Duncan, London; The Secretary of the Sanitary Institute of Great Britain, London; Mr. T. H Cresswell, London; Mr. W. T. Elliott, London; Mr. Ackland, London; The Secretary of the London Chamber of Commerce, London; Dr. R. G. Daunt, San Paulo, Brazil; The Hon. Secretary of the Pathological Society of London; The Secretary of the Faculty of Physicians and Surgeons, Glasgow.

BOOKS, ETC., RECEIVED—

Typhoid Fever at Whittlesea Stopped, etc., by William Thomson, F.R.C.S.—Die Tuberculose in Ihrer Anatomischen Ausbrectung, von Hjalmar Heiberg—North-Western Association of Medical Officers of Health, by Francis Vacher—Report on the Sanitary Condition of the Borough of Birkenhead—Sanitary Report of the Port of London for the Half-year ending June 30, 1882—Index Catalogue of the Library of the Surgeon-General's Office, U.S. Army—Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons of England—The Search after Truth, by William V. Drury, M.D., M.R.I.A.—The Doomed Comet and the World's End, by J. A. Westwood Oliver—Employment of Calcium Sulphide, etc., by Dr. Samuel Sexton—Report on the Health of Bolton during the Year 1881—Tubercular Tumours of the Windpipe, etc., by John N. Mackenzie, M.D., Baltimore—Medical Nursing, by J. Wallace Anderson, M.D.—Dental Materia Medica and Pharmacopœia, by James Stocken, L.D.S. Eng.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt fur Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Students' Journal and Hospital Gazette—Medical News—American Journal of the Medical Sciences—Journal of Cutaneous and Venereal Diseases—Gazzetta Piemontese—National Anti-Compulsory Vaccination Reporter—Revista de Medicina—Ophthalmic Review—Edinburgh Medical Journal—Veterinarian—Nonconformist Gazette—Birmingham Medical Review—Manchester Guardian, November 1.—Manchester Examiner and Times, November 1.—Archives Générales de Médecine—Revue Mensuelle de Laryngologie, d'Otologie, etc.—Monthly Homœopathic Review—Vaccination Inquirer.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF WOMEN.

Delivered in St. Bartholomew's Hospital.

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery at the Hospital

LECTURE III.—ON SYMPTOMS.

In my former two lectures I have gone over the various signs of disease which offer themselves or are obtained by searching. Signs are facts; they are of a positive character; they may be at any time verified; they never mislead, if properly used. Symptoms are quite different; they are generally statements rather than facts; they are statements of subjective conditions; they are generally matter of testimony, accurate and true, or inaccurate yet intended to be true, or inaccurate and intentionally false: they are seldom capable of verification. The absence, indeed, of symptoms may be an important symptom or indication.

Pain is the grand symptom; take redness or hardness as a sign, and contrast the two, and you will see easily the distinction between signs and symptoms. But, though the distinction is important and desirable, yet it is not always to be made. There is no distinct line in practice between some symptoms and signs. For instance, when you are told that a woman is sick and vomits, that is generally more of a symptom than a sign: it may be so even if you see the vomiting and the vomit, for it is not very rare for a woman to vomit quite artificially, hysterically, or with a view to deceive; and in this case there would be the sign, vomiting: but the greater truth is expressed in classing it as a symptom—artificial vomiting.

Symptoms may be direct, near, or proximate. They may be indirect or remote. They may be hysterical—and that does not means spurious or nonsensical or false,—and such hysterical symptoms may be coincidences or consequences of the supposed known disease. Lastly, they may be regarded as diseases rather than as mere symptoms; thus, the acute fatty degeneration and fatal sickness and vomiting of pregnancy is in one sense symptomatic of pregnancy, and the symptom is more important than the originating condition.

An epileptic attack may be a symptom of ovarian irritation, yet it is a disease and more important than the originating one. So, in another department of medicine, a neuralgia with herpetic eruption may be a symptom, and more immediately urgent than the diabetes which led to it.

Now for direct or near symptoms, and the only one which I shall speak of is pain and the allied tenderness. The latter is pain elicited by touching or interference otherwise, and to it are applicable many of the remarks on pain I am about to make. Now, pain may vary in time of occurrence, in quality or kind, in quantity or continuance, and in degree or severity; and it is to be regretted that, as yet, we have no odynometer, or even good odynometrical resources, to test and measure pain; and consequently we have an amazing amount of error, which I hope my remarks will tend to diminish. Many women in their statements exaggerate their pain, and it is unfortunately common for friends to encourage this folly, urging patients to make the most of it; and it is equally true that some women make light of their sufferings. To be brief on the next point, I must appear paradoxical in my statement that the same pain causes a very different amount of suffering in different women, and this not from varying degrees of bodily weakness, or of weakness or strength of mind, but from differences in organisation in this respect. Then, again, many pains are produced by fear and the attention caused by it; thus, I have known a good, sensible woman to suffer very severely from recurrent nocturnal pains arising from an imagined cancer of the womb, and be cured, not by drugs or medicinal treatment, but by the assurance that there was not cancer. Further, most pains are aggravated by attention; and distraction of the attention, if it can be done, relieves or annuls pain.

In studying this symptom in practice, and with a view to deciding on remedies, especially on the dangerous use of opiates in chronic pains, you will remember what I have said, and will say, of degree of pain; and also that most women call any new sensation or peculiar feeling a pain, even although it causes no suffering other than what arises from the bending of the mind upon it.

But, besides knowing that one pain, as in most cases of cancer, is bad from its persistence or constancy, and that another pain, as that of severe dysmenorrhœa, is bad from its intensity, not from its constancy, you must have some rude kind of odynometry. Now, a woman who has a severe or a constant pain will, when interrogated as to her case, almost certainly mention it first, and point to its seat. If, as you often see in "Martha," a malingerer, or a weak, nervous woman, or one merely alarmed, in the course of describing her case does not mention pain, then you may be pretty sure it is at least neither constant nor severe. Such a patient states her theory of her disease—an ulcer or a displacement,—and her pains are probably achings, which represent her alarm more than her suffering. A pain may be severe enough to destroy the power of eating solid food; or it may partially or entirely prevent sleep; or it may be still more intense, and produce sickness; or still more, and cause retching, or vomiting, and cold sweats, and weak pulse, and all the appearances of great prostration. These latter evidences of severity cannot be gainsaid.

The kinds of pain are infinite, and difficult to recognise because of the indefinite meaning of words. Everybody can judge the fixedness of a patient under inflammatory pain, the restlessness and groaning or roaring of spasm.

Besides pain, you may have various other direct symptoms connected with walking, standing, lying, urination, defæcation, coitus; also various feelings that are not painful, as I have already said.

But I must now finish what I have to say of direct or near symptoms, and I advise you to be very sceptical of the gynæcological character of a case which has no direct signs or symptoms. A case may be uterine—cancer, for example—without a single direct or near or remote symptom, and you conclude it is a case of cancer from signs. In what is called the department of minor diseases of women, it is at present quite common for physicians to diagnose and treat a case as uterine which has no direct uterine symptoms and no signs, or signs of a trivial character, and this leads to much bad practice and injury to patients. Direct symptoms are confined to a region of the body bounded above by the lower lumbar vertebræ and umbilicus, and below by the thigh, and I know no exceptions to this, unless, indeed, such as are self-evident, as when the top of a large ovarian sac in the epigastric region becomes inflamed. I repeat that without direct symptoms you should not believe in the existence of a disease peculiar to females unless you have indisputable signs; and I remind you that in the departments of stricture, displacement, and ulceration, and others, there are many signs that are disputable.

But all pains or peculiar feelings within the region indicated—that is, between the navel or lower lumbar vertebræ and the knees—are not gynæcological. An orbital pain does not always indicate ocular disease; and I conclude this lecture with a general remark on the kind of evidence which should convince us that such and such an ache or pain is due to disease of the uterus or of its appendages. If a disease is always or very frequently accompanied by a certain symptom, that is good evidence of the value of the symptom as an indication, and *vice versâ*. If the symptom appears with the disease, and disappears with it or soon after it, that also is good evidence, and *vice versâ*. Again, you may have good evidence in a symptom which is only observed in connexion with the disease, or observed very rarely except in this connexion.

To illustrate, clinically, the value of these remarks, I recall to you an interesting case that was in "Martha" not long ago. She was a weakly creature, unfit to bear hardship or even ordinary hard work. When asked what she complained of, she told us of retroversion of the womb, and of many pessaries which had been used in vain. When asked what pain she had, she replied pain in the back, and we immediately thought of sacrache or lower lumbar ache, but prudently asked her to put her hand on the seat of pain, when she pointed to the nape of the neck. We then examined per vaginam, and found no uterine disease, no retroversion. The case was not a gynæcological one at all.

ORIGINAL COMMUNICATIONS.

A GLANCE AT

THE SANITARY DEFECTS OF THE SITE OF LONDON AND ITS ENVIRONS.(a)

By NORMAN CHEVERS, C.I.E., M.D.

It is probable that the Sanitarians of the future will declare that we, the Sanitary Pioneers of the nineteenth century, were little more than unclean barbarians, unable to master the first principles of scavenging, when they read that, despite all our affectation of learned dogmatism, and our pretence that our rude art is an exact science, a preventable fever took from our midst the best-beloved man of his time; that the same malady well-nigh deprived Britain's Loyalty of its dearest hope; that our oldest and newest palaces are not more free from diphtheria and puerperal fever than the swamp-engirt towers of the Middle Ages were from Black Death and Sweating Sickness; and that when a ruler, as honoured in Europe as he was valued and revered in his own great republic, lay for weeks between life and death, his danger was rather from the marsh poison which environed his palace, than from the wound, which nature, aided by a pure and cool atmosphere, might possibly have repaired.

Among the few not unquestionable advantages enjoyed by the Indian physician, in his European retirement, is the power of viewing the sanitary condition of his surroundings by the light of Indian experience. Although not generally, himself, "plentiful in the possession of dirt," he has learnt to become an accomplished critic in all that concerns the dirt of others. He knows that, but for the influence of marsh-poison and accumulated city and village filth, even the plains of India would afford healthy dwelling-places for Europeans. He observes that, in like manner, notwithstanding all that modern land and town drainage has effected in the way of improvement, the most prevalent and worst diseases of the United Kingdom are due to the survival until to-day—may we not say to the permanence?—of thousands of acres of unreclaimed marsh land, still deserving of its ancient names of slough and swamp, and to the presence of thousands of miles of sewers, drains, and ditches—mere elongated cess-pools—which retain, exhale, and exude well-nigh as much as they void.

Having taken some active part in the difficult task of introducing a sanitary system in Eastern cities and cantonments, he, on his return to London, puts to himself the question which I shall venture to propose to you—*How far were two small hills, almost surrounded by morasses, chosen by a few hundred Celtic warriors as an almost unapproachable stronghold, calculated to become the centre of a salubrious residence for four millions of civilised people?*

An otherwise rather well-informed writer tells us that "the spot on which London is built, or at least that on which the first buildings were most probably erected" [the neighbourhood of St. Paul's Cathedral]," was pointed out by nature for the site of a city." Yes, we reply, as the vantage-ground of a Roman cohort and its followers, at a time when military sanitation was in its infancy, and the health of a few Gaulish or Celtic legionaries was not highly valued; but a locality no more fit or likely to be chosen in the present day, by sanitarians, as the central site of an enormous royal city, than the mud-banks of Venice, the Godwin Sands, or the Eddystone Rock.

Still, according to their lights, the Celtic and Roman leaders chose their position wisely. Here the Britons, who were very little, if at all, removed from the lacustrines, advanced their wooden dwellings on piles from the margin of the estuary, taking plenty of "fat and sweet salmon," as Stow calls them, in the stream; relying on the forests at their rear for timber, firewood, venison, and wild boar's flesh, and on the swamps for wild fowl; and having the double scarped hill and the great trackless Fen to retire to if driven back from the river. The Romans availed themselves of the Britons' earthwork and walled it round. They had the great advantages of a well-raised site and of that still-lauded building platform, "a dry gravel soil."

(a) Read at the first annual meeting of the Epidemiological Society of London, November 1, 1882.

If one had told Lucius Londinensis, the Prætor, that his successors, in the Middle Ages, would extend the city over the muddy bed of Wapping in the Wose and the quagmire of Fensbury, he would have replied scornfully, "We Romans do not build on water! We leave that work to the painted Britons on the Strand below, who are our fishermen, and to my colony of beavers yonder on the Old-Bourne. See, they have thrown a dam across the torrent, thus commanding the approach to the Western Mount!" The execution (shall we say perpetration?) of these feats in architectural progress was left, not to the skill and enlightenment, but to the cunning and greed of the "jerry-builders" who have flourished in London since the reign of Elizabeth.

The Celtic and Roman founders of London knew nothing either of the laws of malaria or of the existence of sea coal, otherwise it might have occurred to them that slight elevations above swamps are peculiarly exposed to pestilential visitation, and that the fogs of the London basin collect smoke, develope "smuts," and thus kill many. In short, the site of London was chosen by barbarians, mainly because it was defensible in war, and we civilised people have continued to hold it, despite all its drawbacks, with the stolid tenacity of a race who do not know when they are beaten.

Even in addressing you, sir, I may perhaps be allowed, for the sake of the continuity of my argument, to give a very slight outline sketch of the topography of ancient and modern London. Roughly speaking, its superficial geology may be represented by an oval cup of London clay and brick earth, extensively traversed and margined by marsh alluvium, across the longest diameter of which irregular heaps of more or less sandy gravel form a broken line of slight elevation. Here the clay and the marsh mud stretch widely; the gravelly sand is by no means abundant. If the latter had happened to be chalk—not silex—we might be pardoned for saying that the complaining tenants of the jerry-builders have no firm ground to stand on, unless they assert that far more sack than lime is apportioned to them.

He who travels from Ludgate-hill to Aldgate, and again from Moorgate Station to London Bridge, will have traversed the whole length and breadth of Roman London. If we annex to this area Westminster (then within a narrow compass), Fleet-street, Whitefriars, and Holborn (the northern part of the latter being sparsely built), and suburbs at Clerkenwell, north of Aldersgate and Bishopsgate, at Aldgate and to its north, and eastward of the Tower, we have then the London of Charles the Second, in which the Plague and Fire gave us sanitarians several grimly demonstrative lessons.

Few of London's outer suburbs existed, except as village greens, until within the memory of some whom I now address.

As I have already hinted, the greater part of Roman London was seated on good building ground. It must have suffered from the marish vapours of its surroundings, but it is probable that there was little natural uncleanliness in the stream of Wallbrook, which rose in the swamps of Fensbury and Moorfields, and passing near the site of the Mansion House to the Thames, at a depth of some thirty feet below the present surface-level, divided the Western Hill—site of the (doubtful) Temple of Diana and of St. Paul's—from the Eastern Hill, above Billingsgate; but, also between these hills, there was a swampy locality, of which Stow tells us, "Fenchurch-street took that name of a fenny or moorish ground, so made by means of this bourne" [Langbourn], "which passed through it, and therefore, until this day, in the Guildhall of this city, that ward is called by the name of Langbourne or Fennieabout."

It will be recollected that the remains of Roman London generally lie from fifteen to seventeen feet, and here and there to about twice the latter depth, below the present surface.

One who, having turned into a narrow passage—Pannier Alley—near St. Paul's, will read, upon a stone there, the inscription—

WHEN Yᵉ HAVE SOVGHT
THE CITY ROVND,
YET STILL THIS IS
THE HIGHEST GROVND.

and will then drive straight to Bow, will observe that there is an extremely moderate and *facilis* descensus from London's highest peak to the Essex marshes.

Originally, marshes or swampy soil surrounded the entire land aspect of modern London, with the exception of an

isthmus on the north-west, traversed by Watling-street, the Roman road from Westminster to Verulamium, nearly in the line of the present Edgware-road.

North.—The whole line of the northern hills had, at its foot, what in India is called a *terai* of jungly, oozy soil, into which the drainage of the uplands sank, to be only partially carried off by streams, of which the Fleet, Tybourne, and Westbourne were chief. The very name of Holloway is sufficiently expressive. We are told(b) that the soil in this part being a stiff clay, that portion of the road from Highgate to Islington which passes through Holloway was, in the time of Henry the Eighth, made with gravel excavated on the top of Highgate Hill by an amiable hermit who had taken up his abode there. "A two-handed charity," says Fuller, "providing water on the hill where it was wanted, and cleanness in the valley, which before, especially in winter, was passed with great difficulty." Considerably southward of this there was an oozy hollow, now traversed by the Underground Railway, a portion of which was known, early in last century, as "Bagnigge Marsh." Immediately to its north, the city was protected, and impested, outside Cripplegate Postern and Moorgate, by Fensbury and Moorfields, described by Fitzstephen [temp. Hen. II.] as "the great fen or moor (*palus illa magna*) which watereth the walls of the city on the north side." Of this vast swamp, Howes says—"This field, untill the third year of King James, was a most noysome, offensive place, being a generall laystall, a rotten morish ground whereof it first tooke the name. This fielde for many yeares was burrowed and crossed with deep stinking ditches and noysome common shewers, and was of former times held impossible to be reformed." Up to the year 1800, much of Southampton Fields, where the Field of the Forty Footsteps was, north of the British Museum, was scarcely in a better condition.

Eastward.—London is immediately bordered by the very extensive marshes of the river Lea and the Thames—Tottenham Marsh, Walthamstow Marsh, Low Leyton Marsh, Hackney Marsh, West Ham Abbey Marsh, Plaistow Marsh, and Bromley Marsh. There was river wall, excluding the stream from the Marsh, up to Poplar and Blackwall. This pre-historic barrier was broken at Wapping (the river front of Stepney), which was, originally, a great wash or swamp, first recovered in the reign of Elizabeth. It is called by Stow, "Wapping in the Wose," "signifying," says Strype, who was a Stepney man, "as in the wash or in the drain." Then there is the Isle of Dogs, which I recollect as a vast, desolate marsh in which cattle grazed, immediately opposite Greenwich Palace. Peter Cunningham says that, in 1830, it was nearly uninhabited. Chatelain's print of the London Hospital, published soon after it was erected in 1740, represents it as standing in a water meadow, with a great ditch in front of it, and with a gigantic rubbish-heap called the Monnt, where the plague-pit for the East of London was, close on its western side. East of the marshes which I have named are the vast tracts of Essex and Kentish Marshes, extending sixty miles to the sea. Who has not felt what a modern novelist describes as "the bitter blast, the rasping wind, blowing up the river from Plumstead and Woolwich, and all the chilly eastern marshes," in "its biting power"?

Southward.—Christopher Wren certainly had grounds for holding that what is now the southern bank of the Thames, opposite to London, was formerly covered by the waters of the estuary, up to Camberwell Hill. Here it may be said that the Kentish marshes extend, with slight breaks, up to Battersea, and beyond it. Plumstead Marsh, Greenwich Marsh, Bugsby's Marsh, the low-lying part of New Cross, the great stretch of marshy ground, lately market-gardens, now becoming closely built town, westward of Deptford, up the Greenwich railway line; Rotherhithe Marsh and fields; Horselydown and Bermondsey, the seat of a great abbey founded in 1082, in the midst of a marsh. Cunningham says that this low-lying parish was long famous for its mill-streams, since converted into open ditches and sewers, covered and filled in as recently as 1849, when the ravages of the Cholera rendered their removal absolutely necessary. I can hardly credit my memory when I recollect the marvellous squalor of much of old Bermondsey and Rotherhithe, and their hideous water-courses. The description of Folly Ditch, in the fiftieth chapter of "Oliver Twist," and the prints in Wilkinson's "Londiniana" and Walford's "London," striking as they are, are quite inadequate to realise their atrocious filthiness and utter sanitary abandonment. Let us trust that, thanks, Sir, to your predecessors and to yourself, nothing approaching to the condition of this plague-spot can ever again be seen in England—out of a nightmare. There is a slight elevation, occupied by the Romans, at old Southwark, which was aguish in Akenside's time; and then again clear marsh—Bankside, Paris Garden, St. George's Fields. Gerard says, in his Herbal, "Of water-violets I have not found such plenty in any one place as in the water ditches adjoining to Saint George his Fielde, near London." Lambeth Marsh: In this vicinity dysentery occurred within my own recollection. The spot on which the Victoria Theatre was built was such a quagmire that it had to be made firm by throwing in much of the rubble of the Old Savoy Palace. At a meeting of the South London Medical Society, held in 1847, there was a discussion upon a paper by Mr. Hicks on "Malaria, with Cases illustrative of its Existence on the Surrey Side of the River." Dr. Thomas Addison said that, in Southwark, London, and its vicinity, "there are decided proofs of the malarial influence. Ague is not rare, enlargements of the spleen are often met with in this neighbourhood and in Westminster. We do not, however, have ague alone, but forms of disease illustrative of its effects, as remittent fever, dysenteric and visceral derangements, many cases of which have been admitted to Guy's Hospital during the late autumn. All the cases in which the miasmatic character prevails are curable by quinine."(c) The river face of that now delightful spot, Battersea Park, was, until 1852, one of London's worst marshes. Battersea Fields, which it occupies, has been lately described(d) as having been a miserable swamp, said to have been obtained for the parish of Battersea by the act of charitably burying a drowned man there who had been refused sepulture in the adjoining parish.

Originally, the marshes *Westward*, up the river, must have been nearly as injurious to public health as those to the east. The Abbey and Palace of Westminster stand upon what was Thorney Island. The lower buildings of the Palace used to be flooded at very high tides, before the embankment was made, as Bankside, Southwark, and Lambeth Palace have been in recent times. We have record of these two occurrences, standing nearly six centuries apart. In 1235, the Thames rose so high at Westminster that the lawyers were brought out of the Hall in boats; and in October, 1811, the houses in Palace-yard and Westminster Hall were flooded Tothill Fields must have been originally a marsh. I have the large view of London, looking down the river, taken by Hollar subsequently to the building of the present St. Paul's. It shows Peterborough House, on Millbank near the Horse-ferry, which was, in Pennant's time, "the last dwelling in Westminster" up the river. Strype says that "its situation is but bleak in the winter, and not over healthful, as being so near the low meadows on the south and west parts." My friend Dr. Duka attended an inhabitant of Millbank, whom he found to have an immense spleen and to be in an advanced state of malarious cachexia. An old chronicle describes the site of Westminster proper, where, a very few years ago, the Premier was reported to be suffering from aguish symptoms, as "a thorny island and terrible desert." Up to 1750 the only road to the Houses of Parliament was through King-street and Union-street, "which," says Smith in his "Westminster," "were in so miserable a state that faggots were thrown into the ruts on the days on which the King went to Parliament, to render the passage of the State Coach more easy." From Whitehall to Millbank the soil of Westminster is alluvial—true marsh. Peter Cunningham says that "a very large part of Westminster is still below the high-water tide of the Thames. Westminster was almost an island even in Elizabeth's reign. Stow writes that Long Ditch was "so called for that the same almost insulateth the City of Westminster." Of this place Strype says, "passing by this house" [Lord Jefferies'] "on the same side, beginneth a short street called Delahay Street" [this sounds very like De-la-*eye* Street], "which falleth into Long Ditch which almost encompasseth this part of Westminster, now all dryed up and converted into streets and houses; a place of no great account for houses or inhabitants." St. James's Park is described as having been "a marshy waste

(b) Walford's "London."

(c) *London Medical Gazette*, vol. xxxix. for 1847, page 123.

(d *The Saturday Half-holiday Guide.*

drained and improved by Henry VIII." Up to 1682, at least, it was liable to become completely flooded. Here was a leper-house, now St. James's Palace. In 1847, Dr. Thomas Addison spoke very strongly of "the unhealthy situation of Buckingham Palace, as showing the little attention paid by the Legislature to matters so important to the public health."

Peter Cunningham (who, if still alive, would not be an extremely aged man) wrote that it seemed but the other day since he played at cricket in the Five Fields, or pulled bulrushes in the "cuts" of the Willow Walk in Pimlico—originally called *La Neyte*—which was wholly uninhabited before 1626. At the present moment it is reported that South Belgravia is threatened with inundation from the Thames, endangering "life as well as property." Early in her married life Mrs. Somerville resided near Chelsea Hospital, hard by the embouchure of the Westbourne, now the Ranelagh Sewer, and suffered much from the dampness of the locality. Northward of this we come upon more or less elevated ground—West Brompton, Campden Hill, Notting Hill, Bayswater. Here we have some gravel, as at Kensington Gravel Pits, near and about the Palace, Gloucester-road, Brompton Cemetery, etc., and more clay, as in the great district which, in my own recollection, was the Bayswater Hippodrome, an admirably laid-out race-course, the soil of which was composed of such adhesive clay that, whenever rain fell, the horses could not run.

Such clay has been found to have its uses. In certain of the suburbs of London the clay has been, and is still being, excavated by the brick-makers, whose burnings give a flavour to the atmosphere, which very nearly resembles that diffused in Calcutta from the great Nimtollah burning-ghaut for Hindoo corpses before we Justices reformed it. Then the hollows were filled in—upon the invitation "*Rubbish shot here*"—by—WHAT? and then the bricks became houses. To us moderns, who are doomed to fight for existence upon an artificial surface composed of we know not what, save that none of us are so enthusiastic as to exclaim of it, "This is my own, my native land!" it is a sad reflection that this process of "land-grabbing" has probably been going on, more or less actively, for some eighteen hundred years.

A writer who evidently looked below the surface of this question, but who, doubtless, did not inhabit a Roman brick-field,(f) tells us that it is probable that Roman London "was principally built, like our modern metropolis, not of stone, but of brick—the convenient material which nature offered then, as it does still, in unlimited abundance on the spot, so that the most extensive ranges of architecture might be actually reared, almost like plantations, out of the very ground where they stood." A delightful piece of speculative philosophy this—for architects!

I will take a very few examples (which are intentionally far-fetched), out of hundreds which might be cited, of this London practice of building houses upon ground unnamed in the science of geology, "made" anyhow. Stow tells us that, when the Duke of Somerset destroyed the charnel-house of St. Paul's, in 1549, more than one thousand cart-loads of bones were deposited in Finsbury Field. On these bones "the soilage of the City" was laid, and three windmills "in a short space after raised." This locality has been densely built upon for centuries. Fifty-five years ago, the soil obtained in excavating the twenty-four acres of St. Katharine's Docks was employed in filling up the reservoirs of the Chelsea Waterworks Company; and, upon the area so formed, much of the south side of Pimlico was erected. Here was a pretty playground for the Bluecoat School! Stow says that the "Town Ditch" "being there made of 200 feet broad, was long carefully cleansed and maintained," . . . "but now, of late, neglected, and forced either to a very narrow, and the same a filthy channel, or altogether stopped up for gardens, planted, and houses built thereon."

It has been observed by antiquarians that a little attention to the ancient place-names of London affords us a considerable insight into the original state of the land, as marshy or otherwise, which is now town. I need hardly say that *Ait*, or *Eyot*, or *Eye*, is still a common Anglo-Saxon word, signifying a small island in a river or a moderate rising in a marsh. We have an Ait at Chiswick, the old name of Pimlico was La Neyte, and, as I write this, a doubt exists as to whether the Brentford Eyot, which is described as "a waste of two acres, containing some good forest trees," shall be left to be washed away by the river, or be maintained as one of our open spaces. Wherever, in England, *eye* or *ey* enters into an ancient place-name, some expectation may be formed of tracing the island, or the rising ground in the marsh. Thus we have the I. of Wight, as it is often written, Ireland's Eye, Eye and Ely, Lea, Leigh, Lee, Leyton, Pevensey, Tilbury, Eton, Chertsey, and a multitude of others. These *Eyes* are only too abundant in and around London. If it were not so serious a matter, one might say that London is as full of eyes as a peacock's tail, and argue that, in the vernacular of the district, Highgate is *Eye*-gate, or the entrance to the place of *Eyes*.

Thus we have the Ty-bourne (which was also known as the Eye-bourne), Bloomsbury (originally Lomesbury), Fensbury, Fenny-abont, Lothbury (probably an *eye* of the Langbourne), Aldermanbury and Bucklersbury (doubtless *eyes* of the Wallbrook), Hackney, Bromley, Stebeney (Stepney), Bermondsey, Horselydown, St Mary Overies, Battersea (originally Patrick's-ey), Isleworth, Putney, Chelsea, Thorney. Then we have the allied word *hithe*, a bank, still annexed to the names of many places on the prehistoric river-wall of Thames—as at Greenhithe, Erith, Rotherhithe, Lambeth (Lamb-hithe), Garlichithe, Queenhithe. It seems to remain for sanitarians to explain the obscure ancient proverb, "If London bridge had fewer eyes it would see better."

Although I have occupied a long time in showing that—(1) *the Site of large portions of London is bad because it is marshy*, it ought not to take a great deal of argument to prove that much of the remainder of its area is *insalubrious because it is old*. Every sanitarian knows that no town, palace, or castle, which has been occupied for centuries by man and the lower animals, can possibly be a healthy place of residence. If we could trace out completely the sanitary history of each of the hundreds of nobly picturesque ruins of great houses in the United Kingdom, we should probably find that nearly all became deserted, not because they fell into hopeless decay or into Chancery, but because, after long endurance, it was determined that people could not exist in them. Hence the now generally accepted truth that many of the prettiest ancient villages, full of quaint buildings, thoroughly perflated by the fresh air of heaths and fields, and sweet with the odour of flowers, are notorious hotbeds of diphtheria and enteric fever.

Hence probably the fact that, formerly, no Great Mogul would inhabit his father's palace, or even his city. Consequently, the marvellous display of deserted and ruined palaces, each surrounded by its own desolated city, which covers the Plain of Delhi.

Considering the nature of our present water-supply, it is useless now to rake up the grim history of the nitrogenous wells of old London. Still, when I read that the Portuguese ladies who accompanied Queen Catherine of Braganza to London complained bitterly of the drinking-water, I could not but recollect the misery which, as a boy and lad, I suffered, between 1831 and 1835, in drinking the saltpetrey water, which was all that I could obtain in Southwark and in the neighbourhood of the Strand. Every reader of history knows that, early in the seventeenth century, all England was excited almost to rebellion by the inquisitions and dilapidations of the "*Saltpetre Man*," whom Government employed to obtain nitre for their gunpowder manufactories by digging up the floors of stables and slaughter-houses, and even of private dwellings. The black, greasy, fœtid subsoil of Old London must have afforded an almost inexhaustible mine for the Saltpetre Man, and it is now almost to be regretted that he did not succeed in carting it away bodily. Snow's Fields, upon which Guy's Hospital was built in 1773, were probably almost open fields when the house was erected, although the site was part of that Southwark which the Romans occupied. Some forty years ago, a deep trench, for a culvert, was cut from the main building down to the Southern gate in Union-street. The clay which came out of this had the appearance of an equal mixture of soot and lard, and stank abominably. I wondered how people could have brought themselves to build a hospital on such soil, until, a few years since, an accident led me to discover some cartloads of even worse filth below the very basement rooms of my own hospital in Calcutta; a modern building erected on the site of an old tank, filled in with—WHAT?

Stepney may be taken as a fair example of the sanitary

(e) *Vol. Geol.*, vol. xxvix., page 123.
(f) The Roman Remains, Knight's "London."

history of a London *eye*. Until far on in last century, Stepney proper (Stepney Green) appears to have been nearly in the condition of the many pleasant "Greens" which environed London; but it is to be borne in mind that Stepney parish formerly included the other large low-lying parishes of Spitalfields, Bethnal Green, Whitechapel, Shadwell, Poplar, and Limehouse. We read that, in the first year of Charles the First, Stepney lost 2078 persons by the Plague; and that in 1665 Plague again appeared there, and, according to the parish clerk's account, swept off 6583 persons, besides 116 sextons and gravediggers. It is stated, in the "Life of Lord Clarendon," that "the Plague had swept away so many seamen (Stepney and the places adjacent, which were their common habitation, being almost depopulated) that there seemed to be an impossibility to procure sailors to set out the fleet." Stepney lost a character for salubrity, which it had somehow obtained, when, in 1844 and 1866, many cases of cholera occurred in its neighbourhood. (g)

I have space for only a very few facts showing the great prevalence, in old times, of *Intermittent Fever* and *Dysentery*, true paludal diseases, in London. We are told(h) that "*Dysentery*, the disease of camps, and of those who live as if in camps, carried off its thousands annually in the crowded and dirty parts of Old London." Dysentery appeared in the bills of mortality under the name of "bloody flux." Sir Joseph Fayrer(i) says that "the Plague of London of 1665 was followed in the autumn of 1666 by an epidemic of dysentery, which was infectious, and was considered to have been due to contamination of the air by the Plague victims buried in and about London the previous year; and that other epidemics of Dysentery visited London in 1669-72, in 1762, and 1768." One of the "Opuscula" of Sir George Baker, published in 1763, treated "*De Cotarrho et de Dysenteria Londinensis*." In his excellent "Address on the Sanitary Condition and Laws of Mediæval and Modern London,"(k) Dr. Tripe shows, from an analysis of the Bills of Mortality, that, in the twenty years 1611-20 and 1631-40, which included one period during which Plague was rife, and another in which it caused only a few deaths, the percentage of deaths (Plague excepted) from bloody flux was 4·2 per cent.

With regard to *Intermittent Fever*, Dr. Tripe shows that, during those periods, the percentage of deaths from Ague and Fever was so high as 12·9 per cent., or with "purples" (maculated typhus) and spotted fever added, 13·9 per cent.

In this (the seventeenth) century, outbreaks of Plague, Intermittent Fever, and Dysentery occurred in London with irregular alternation. Sydenham tells us that, in 1661, the autumnal intermittents, which during the last few years had been gaining ground, broke out afresh about the beginning of July. They gathered strength daily. By the month of August they were doing fearful mischief. In many places the mortality was excessive, and whole families fell victims. The form was an ill-conditioned tertian. Intermittent continued to be frequent in London until about the time of the appearance, in 1665, of the great and last outbreak of Plague. Sydenham says that, for thirteen years subsequent to this, intermittents attacked only a few patients sporadically. The Plague of 1665 was followed, in 1666, by Dysentery. Sydenham has left us an account of the London Dysentery of part of 1669, and of the whole of 1670, 1671, and 1672. He tells us that, by the end of the summer of 1668 and at the beginning of autumn, Intermittent Fevers were pre-eminently prevalent, so much so as to exclude all other disease from the name of epidemic. A hint of the prevalence of this disease two years later is given by a quack advertisement of 1680, which has been preserved—"The certain cure of Agues of all sorts is performed by a physitian of known integrity; they who desire his assistance may repair to his house, which is the first floor on the right hand in Gun Yard, in Houndsditch. His hours are from eight in the morning till two in the afternoon." Dr. Handfield Jones's remarks on "Neurolytic and Aguish Disorders in London" are evidence of the fact, recognised by the whole profession, that the masked forms and hybrids of paludal disease are still rife amongst us. At page 25 of his admirable Croonian Lectures on the "Climate and Fevers of India," Sir Joseph Fayrer has cited a figured statement which shows that the number of Intermittent Fever admissions and deaths at the London Hospital has diminished within the last 110 years. I do not, however, consider these data germane to our present question, seeing that the statistics of in-patients of a hospital do not, or at all events need not, represent the prevalence of Intermittent in its district. Hundreds of cases of Intermittent occur every day in Calcutta, but I believe that the tabular records will show that, during my fifteen years' incumbency, very few cases indeed of this disease were admitted to my wards. I purposely excluded them, our means of treating uncomplicated Intermittent outside being quite efficient. It is, however, noteworthy that, in 1880, no less than fourteen cases of Intermittent Fever were received into the wards of the London Hospital.

Having endeavoured to prove that nearly the whole of Old London is bad, from a sanitary point of view, chiefly because it is old, and thoroughly and hopelessly saturated with the filth of ages; and that nearly all its new suburbs are bad, because they are situated on marshy or clayey soil, or "made ground," or on ground which has, at some time or other, been scalped by brickmakers,(l) I may probably be asked "To what practically useful ends do your observations tend?" "We cannot give up London. What are we to do with it? Would you have us condemn and desert it, as the ancient rulers of Bengal did, late in the seventeenth century, when pestilence, caused by the permanent drying up of their river, ravaged that magnificent imperial city Gour; and as the modern authorities in that country have frequently done when their military cantonments proved beyond remedy unhealthy? My reply is, "You might do worse; but, as matters stand, a vast deal in the way of improvement has been long in progress, and much more, in the same direction, remains to be done." Ought there not to be a law preventing the erection of dwelling-houses in a marsh, each with two feet of water in its basement, which anyone may occupy who dares, or is compelled by poverty to do so? I do not know that, in the absence of such a law, those who build such houses are altogether culpable. Englishmen have always delighted to build in and near marshes, evidently preferring them to higher ground. Examine the sites of the Royal Palaces of the Tower, the Savoy, Somerset House, Whitehall, Westminster, St. James's, Greenwich, Windsor—all so directly facing extensive marshes that it might be imagined that swamps were as essential to their comfort and magnificence as gardens, chases, and pleasaunces. It is below the dignity of Britons to fear marshes; we probably inherit much of the beaver blood of our lacustrine sires, who adhered so closely to their pre-historic habits, up to the middle of last century, that they maintained a street of houses on London-bridge. Some of those present may recollect that the Port of London, with its ranges of wharves supported on wooden piles and girt together with enormous timbers, had formerly much the aspect of a lacustrine city. The delineation of the waterside dwelling of Mr. Quilp, as left to us by Dickens and "Phiz," displays the true natural history of the modern lacustrine—that worthy was undoubtedly lacustrine. He would scarcely have hesitated to build a house in a marsh, and perhaps even to lodge in it himself, if he failed to let it. But I think that it may now be time to drop these barbarisms.

Again, it may be asked, "Do you deny that marsh land can be so thoroughly reclaimed as to be rendered fit for human habitation?" This is assuredly my belief; but, although all our inhabited marshes cannot now be abandoned, it is clear that the medical men and landlords in such localities ought never to forget that their patients and tenants are thus situated and imperilled, and that the authorities must never lose sight of the special necessity of perfecting the subsoil drainage.

The typical Englishman displays almost as much alacrity and skill as the Dutchman in depriving water of its land, but he is far less enterprising and successful in freeing the land thus reclaimed from its superfluous water, although he must know that, in doing so, he would make his

(g) The *Mirror* and Walford's "London."
(h) Knight's "London"; The Bills of Mortality.
(i) "Tropical Dysentery and Chronic Diarrhœa," page 5.
(k) *Medical Times and Gazette*, November 12, 1881.

(l) It would be interesting to enquire, "What has become of much of the ground with which nature gifted London and its suburbs?" I think that there are reasons for believing that the City hills were deeply hollowed by the Celts. I know an old-fashioned garden, near Calcutta, the gravel walks of which came [from London:] as ballast.

property more valuable, and consult his own and his neighbours' health. The time has surely come at which the thorough reclamation and utilisation of our vast marsh-lands should be made the subject of a great national movement, a Royal Commission being appointed to inquire into the whole question, and adequate funds being raised. I believe that, at present, the marshes east of London are almost wholly given up as grazing ground for oxen—"beasteses," in the local vernacular. As an ex-Inspector-General of Gaols, I can perceive no objection to the employment of convicts in the work of improving the marshes nearest to London. Properly housed inland, the prisoners would not be unhealthy, nearly all the danger of marshes being to those who sleep there and to those whom (as happens to the denizens of London) their exhalations reach at night. It is unquestionable that, with an adequate expenditure of money and labour, the improved lands would be not only more salubrious, but more valuably productive, than they are at present.

I believe that, at an outlay not larger than that which many country towns have devoted to their water-supply and drainage, London might place between its dwellings and the Essex and Kentish marshes a growth of trees which would almost immediately protect it against the marsh influence in that direction, and would, in the course of a few years, considerably mitigate the severity of the east wind. It is reported that, very lately, 93,000 acres in Kansas have been set with young trees. Is a similar undertaking beyond the resources of London?

It appears singular that these two lines of marshes, having long been traversed by railway-lines, should now lie as desolate and unimproved as they were under the Heptarchy—nay, probably far more so, as the isolated position of their very ancient churches indicates. Do the Railway Authorities sufficiently consult their own interests in this matter? Surely they ought to be daily taking large bodies of labourers up and down, and to be bringing hundreds of tons of marsh produce to the London market. In establishing the Canning Town Fish and Vegetable Market, the G.E.R. Company appear to have made a good beginning.

In those flats, almost unlimited space and water-supply are afforded for the construction of docks, for the reception of ships in ordinary, and for the repair and sale of vessels of every description; for butcheries, tanneries, and knackeries; for lime burning and brick-making in those localities where chalk and clay abut upon the marsh; for a hundred kinds of manufactories where night service is not required; for cemeteries, crematories, and patent manure works; for ropewalks, market gardens for vegetables and fruit; for flower and seed and bulb nurseries and lavender-beds and sunflower-fields; for reed and osier beds and lines of willows and poplars; for skating fields, preserves for wild and tame water-fowl, and for reservoirs containing fish for market. I used to spend hours beside a pond in Essex, which, in an area of about a quarter of an acre, contained thousands of gold fish, which the thieves, who used now and then to come down from London at night and take away a cart-load, probably knew to be of great value.

Each of these establishments should have a fine sheet of water on either side, the excavated earth being used in heightening the dry area. All utterly useless parts of the marshes, if there be any, ought to be permanently flooded. In course of time, any amount of sound earth might be brought into these settlements, by tram, from the mainland; and upon the new soil, duly manured with the sewage matter of London, nearly everything that grows in England would flourish luxuriantly; just as, in India, I have seen clean-washed river sand converted, by manuring, in five years, into productive vegetable gardens. These and very many other works of reclamation and improvement having been effected, abundance of pasture-land would remain for the development of grass culture and the fattening of beeves. Why, with unlimited land and unbounded water and manure supply, and with railway lines traversing their whole extent, English enterprise allows these vast tracts of land, extending up to the very suburbs of London, to continue wholly unimproved, with their best qualities of reception and production undeveloped, while at the same time their exhalations poison every breath of air which the Royal City draws, stamping the typical London visage with a livid whiteness, and aggravating (if they do not actually cause it) every disease from which four millions of Londoners suffer,—why, I say, this is allowed to happen is a fact the explanation of which is quite beyond my comprehension. The owners of marshes will, of course, say, "Our corn and potato fields extend to the margin of our marsh-lands. We would have done what you suggest long ago had we been able to meet the first outlay. In these times farmers cannot look for a return upon money expended upon land." I should be glad to be able to reply, "The city which your marshes impest will aid you in effecting that which will be a valid work of national improvement, and which will speedily repay the needful outlay by doubling the value of your lands, and by giving us citizens the benefit of a pure sea-breeze."

I speak of these marshes with experience; I was born on a Kentish "Hithe," and much of my later youth was passed close upon the Essex marshes. It may be thought that I am prejudiced against these fens. Hear what a writer of great power said,(m) last summer, of the Hundred of Hoo, across which fourteen miles of railway line have recently been opened:—"About October, the 'Marsh King's Daughter,' the subtle, deadly ague, wanders over the wild flats and pale waters, and one may catch malarious fever as easily as a cold in the Hundred of Hoo. In the infrequent shepherds' cottages, which break the utter solitude, quinine and Gregory's powder are brought from market as regularly as tea and sugar; the marsh people would not understand existence without 'shivers' and 'spleen cake.' Ague is part of their ordinary life."(n)

I think that there is utility in these reflections, if it lie only in the practical facts that it is needful that the public should be made aware that he who, on first occupying a swamp, builds upon an *eye*, or near it, hardly fares better, as regards his sanitary position, than he who drives piles into the ooze and erects his cabin there; and that it is well worth the while of every sensible man whose property or residence is upon an *eye*, whether the locality be of ancient or recent occupation, to look vigilantly about him, to ascertain whether there is, or has been, a surrounding marsh; and, if this be the case, to have recourse to those remedial measures which are dictated by sanitary science and by the law of the land.

Every landlord ought to be under legal obligation to satisfy his tenant, whether the site of his house has been a marsh, a pond, a brickfield, a laystall, a burial-ground, or a plague-pit, or is saturated with the filth of ages; whether "rubbish has been shot there," and whether boring shows that rubbish to have been clean or unclean; whether the building stands upon a sufficient layer of concrete, and whether there are disused cesspools or drains in or near the basement. Indeed, I think that it is not too much to expect that authority should place an indelible inscription, relative to the above points, on the inner walls of every dwelling. It is, of course, quite practicable to cut out the soil upon which a house stands, and to fill in with charcoal and asphalt or with concrete to a proper depth.

It will perhaps be said, "You can see no good in London, and can only perceive its defects." To this I reply, "Not so; the question before me is exclusively one of disease and its prevention. When a man is sick unto death, his doctors are not expected to waste time in discussing his personal merit."

The physicians of Europe are not unaware of the fact that, wherever the marsh poison exists, it is a cause of national degeneracy, poverty, and unhealthiness; but none can perceive the truth of this sanitary platitude more clearly than the physician who has spent a working lifetime in a tropical swamp. On this ground, I trust, Sir, that you will justify me in reverting, perhaps with too much dogmatic earnestness, to a momentous subject which engaged a good deal of my attention before I went to India.(o)

Except one sentence, referring to a threatened flood in South Belgravia, the whole of this paper was in type previous

(m) Leader in the *Daily Telegraph*.

(n) There is great truth in the observation of John Martin, the artist, cited by Cunningham from the "Thames and Metropolis Improvement Plan," page 20:—"The unwholesome fogs that prevail around London originate in the lamentably defective drainage of the neighbouring lands, as the numerous stagnant pools, open ditches, and undrained marshes in the East, and cold clay lands along the banks of the Thames, Colne, Lea, Wandle, etc. When these spots are thoroughly drained, the fogs will cease, and London become the most healthy city in the world." I can recollect that, in Martin's time, London fogs were considerably less dense than they now are. Then the smoke nuisance made them yellow; its vast increase now renders them black.

(o) *Medical Gazette*, vol. XXXIX for 1847, page 122.

to the occurrence of the great inundation which has, within the last few days (November 1), occupied or endangered much of the Thames Valley, including Bankside, Upper Ground-street, Lambeth, and other low-lying spots of which I have spoken. This morning, an unfortunate man writes in the *Telegraph*: "I live near the Thames; very near the Thames; so near that I can sometimes say, with but little stretch of truth, I live *in* the Thames. It invades my library, as, the other day, it was said to have invaded the library of the House of Lords."

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

CYSTIC TUMOUR OF NECK—INCISION—SUPPURATION—SUDDEN HÆMORRHAGE—DEATH.

(Under the care of Mr. SAVORY.)

A. B., a cabman, aged fifty years, was admitted into Abernethy Ward, St. Bartholomew's Hospital, March, 1870, under Mr. Savory's care. He presented a soft swelling on the right side of the neck, coming from below, and partially overlapping the sterno-mastoid muscle. The presence of fluid being suspected, a small incision was made into the swelling, and some two or three ounces of clear cystic fluid were evacuated. During the next three days a slight discharge continued, which then became purulent; this continued during the next ten days. At midday the ward-sister was called to the patient, who was sitting up in bed, with a jet of blood spurting out through the sinus. The Surgical Registrar (Mr. H. Symonds), who happened to be in an adjoining ward, was immediately summoned, and arrested the hæmorrhage by digital pressure on the carotid. Mr. Savory upon seeing the patient half an hour later, sent him at once to the theatre, Mr. Symonds still continuing pressure on the wound. After anæsthetising, the finger was removed, when the hæmorrhage at once recommenced. Mr. Savory laid the sac freely open, and turned out a quantity of blood-clot. After careful search the bleeding orifice could not be found; the pulsation of the carotid was felt in the deeper parts of the wound. The artery was therefore cut down upon by slightly extending the incision, and tied with a silk ligature. The patient, however, who was much exhausted before the operation commenced, never recovered consciousness. He died comatose next day.

At the autopsy an opening was found in the external carotid artery about half an inch above its bifurcation.

[Mr. Harrison Cripps has kindly furnished us with the above brief notes of this case. It is interesting as bearing on a discussion at the Clinical Society which followed the reading of Dr. Mahomed and Mr. Pepper's case of severe bleeding from the throat after scarlet fever, and reported in our issue of November 4. Mr. Berkeley Hill's case, also reported last week, is another of the same kind.]

UNIVERSITY COLLEGE HOSPITAL.

CASE OF CARCINOMA OF THE STOMACH WITH PROGRESSIVE ANÆMIA.

(Under the care of Dr. BARLOW.)

[Reported by F. W. MOTT, M.B., House-Physician.]

ELIZA H., aged fifty, was admitted into University College Hospital on August 4, 1880. She sought relief for vomiting and loss of flesh. There was no hereditary history of cancer. The patient had enjoyed fairly good health, except for occasional "bilious" attacks, till nine months previous to admission, when she first began to lose her appetite and suffer with sickness, especially after food. From this time till the present date she had rapidly got worse, and her friends had noticed the great wasting and peculiar sallowness of her complexion. She had not long since vomited black matter, and her stools she had noticed were at times black.

Condition of Patient when first seen.—Sallow, cachectic complexion; great emaciation; the skin lying in loose folds all over the body. Very marked anæmia shown by the lips, conjunctivæ, and finger-nails. The superficial veins were not unduly distended. She had fairly good teeth and could masticate her food well, and there was no difficulty in swallowing. Though troubled with frequent vomiting she complained of no pain, nor was there any tenderness over the abdomen on palpation; but a small hard tumour about the size of a pigeon's egg could be felt between the umbilicus and ensiform cartilage. This tumour, which could be felt lying in front of the spine, with its long axis transverse, did not pulsate, and only caused slight pain on pressure. The lower border of the liver could not be felt, and there was an intestinal note obtained on percussion over the lower two inches of the hepatic region in the nipple line. The spleen was not enlarged. The lungs were fairly healthy, nor was there anything noticeable with the circulatory system beyond feeble heart-sounds with reduplication of the first, and a small, compressible, weak pulse. The genito-urinary system was normal, as far as could be ascertained by symptoms and the examination of the urine.

August 5.—The patient vomited about one pint of semi-solid matter, having a sour, fermenting odour, and resembling yeast in appearance. On microscopical examination this was found to consist almost entirely of sarcinæ and a few torulæ.

6th.—On palpation of the abdomen in the epigastric region, the stomach could be felt distended with a semi-solid soft substance. This swelling entirely disappeared after the patient had vomited a large quantity of material similar to that brought up on the previous day.

On August 7 the patient was ordered to be fed on pancreatised food, prepared according to the formula of Dr. Wm. Roberts. She seemed to improve on this artificial diet, and the vomiting almost ceased immediately. On account of patient complaining bitterly that she was being starved, this treatment had to be given up, and on August 13 she was allowed a chop, with the result anticipated, viz., return of the vomiting, which continued in spite of the administration of sulpho-carbolate of soda.

On August 17 the blood was examined microscopically. The corpuscles were irregular in shape, many were smaller than natural, and they were all very deficient in colouring matter. They had a great tendency to run together—not into *rouleaux*, but to form an irregular fused mass. The white corpuscles were not greatly increased, but the red were very much diminished. When enumerated by means of Dr. Gowers's hæmacytometer, they were found to be only 32 per cent.

The patient daily became weaker, and the corpuscles diminished in numbers; on August 27 they were only 30 per cent. The vomiting still continued, and the emaciation and anæmia increased. On September 26 the proportion of red corpuscles was reduced to 26 per cent., and the hæmoglobin only 11 per cent.

On September 27 she insisted on going home.

It was ascertained afterwards that the patient had been taken to Guy's Hospital, where her extreme anæmia was noted as the marked feature of the case. She died in a very short time, and at the post-mortem examination, which was made by Dr. Peter Horrocks, a scirrhus of the pylorus was found without ulceration, and a small cancerous mass in the uterus.

Note (by Dr. Barlow).—The special feature of this case was the intense pallor, so that but for the detection of the small mass, proved afterwards to be scirrhus of the pylorus, it might have been considered one of idiopathic anæmia. It is important to bear in mind that there was no ulceration of the mucous membrane. The benefit derived, during the few days of its administration, from the pancreatised oatmeal-gruel recommended by Dr. William Roberts was most striking, and if only the patient had been willing to persevere with it she might have been saved a great deal of distress. In another similar case this preparation was used with the greatest advantage for over two months, during the early part of which there was very marked improvement in general nutrition; but the patient ultimately succumbed, with extensive deposits in other organs.

MANCHESTER ROYAL INFIRMARY.—Mr. J. Hardie, the Senior Assistant-Surgeon, has been promoted to the office of Honorary Surgeon, in the place of Mr. Elward Lundy, resigned.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 11, 1882.

MEDICAL METEOROLOGY.

The Relations of Meteorological Phenomena to Man was the subject chosen by Dr. Tripe for his Presidential Address at the Society of Medical Officers of Health, which appeared in our last number. That some relation between the two does exist; that the health of individuals and of communities is in some way dependent on and affected by meteorological conditions of heat and cold, of drought and moisture, is a self-evident truth; but when we read a survey like Dr. Tripe's, of what is really known on these relations, we must confess to a feeling of no small disappointment. That our forefathers, with their imperfect means of meteorological observation and very defective knowledge of the causes of death, should have been unable to arrive at any satisfactory conclusions was natural; but we, though it is true we have no system of registration of disease, have a record of deaths in every civilised country far more complete than they had, and, concurrently with this, records of all meteorological phenomena taken daily at a thousand stations, yet we seem almost as far as ever from any definite knowledge of the causes at work even in periods of marked epidemics. The complexity of these causes constitutes the chief difficulty in the matter; another is the co-operation of causes other than meteorological in bringing about results. In these investigations we can rarely, if ever, avail ourselves of the only absolute proof, the "method of differences," and we are driven to draw what inferences we can from the "concomitant variation" of meteorological and nosological phenomena; and while a plurality of causes is always at work—these causes co-existing in no definite or fixed proportion—we are compelled to consider them separately, or at best to compare the results of two such causes with one another.

In practice, meteorological phenomena resolve themselves, or, more correctly, must be somewhat arbitrarily divided, into those of climate, season, and weather, or constant, cyclical, and casual combinations; but here again we are met by the fact that climate and season are little better than mental abstractions, being the resultants of extremes, the means of which give no true idea of their general character. Again, among the causes of nosological phenomena a number of others, known and unknown, are at work, not belonging to the domain of meteorology, and modifying or disturbing the action of those that do. For example, the triennial exacerbation of measles is independent of weather, and due simply to the introduction of a fresh accumulation of subjects susceptible to contagion. Or the immediate cause may not be the meteorological phenomenon which constantly precedes the effect, but an intermediate condition, at once effect and cause, connecting the two. In no other disease is the relation between temperature and the death-rate so constant as with diarrhœa. Of every hundred deaths from this cause 1·4 occur when the mean weekly temperature is under 35°, 1·7 under 40°, 1·5 under 45°, 1·5 under 50°, 3·1 under 55°, 5·8 under 60°. This is the critical point, for 13·4 occur between 60° and 65°, 27·3 under 70°, and 44·3 above it. Yet it seems more than probable that the *vera causa* is the decomposition, doubtless due to bacterial agency, of organic matters present in and on the soil, and set going by the rise in temperature; and that a comparison of populations dwelling among good and bad sanitary surroundings—*i.e.*, where such putrefaction is less or more active—would justify us in assuming that if the organic matters were entirely absent no increase of diarrhœa would follow the rise of the mean temperature.

Diseases of the respiratory organs prevail with like regularity, but in inverse ratio, the percentage of deaths between each 5° of mean weekly temperature from under 35° to over 70° being 25·8, 17·8, 14·8, 11·9, 8·3, 6·5, 5·4, 4·5, and 5·0. Here the causation is more direct, but not so simple as at first sight appears, for though the same order is observed in New York as in London, the mortality does not bear the same proportion to the temperature, the difference being clearly due to the co-operation in our climate of greater humidity, and the prevalence of fogs, which are nearly absent from the American capital.

The interval which must be allowed between a rise or fall of temperature, etc., and its effect on the mortality is an important consideration. In the summer diarrhœa and the acute bronchitis of infants, it is short and fairly definite; but where the proximate cause of death is a complication or sequela, as in scarlatina and in pleurisy, or a relapse, as in enteric fever, the duration of each case should be taken into account in local inquiries, or, where that is impracticable, the irregularity of sequence must be recognised.

Mr. Buchan and Dr. Mitchell had ascertained the curve for scarlatina in London; but all conclusions from meteorological observations are cast to the winds when we find that in New York the mortality is highest when here it is lowest, and *vice versâ*. It is possible that such causes as the confinement of children to their homes, or their association in the streets, may act as factors in the propagation of diseases, favoured in the one case by insanitary domestic conditions, and in the other by direct contagion; and that since this confinement or liberty is brought about by states of weather, extremes of heat and cold alike acting as checks on an out-door life, erroneous and conflicting conclusions have been come to.

The relation between dampness of soil and phthisis, so ably worked out by Mr. A. Haviland, Dr. Buchanan, and Mr. Griffiths, and confirmed by the experience of towns before and after subsoil drainage, and also that between the constant or varying height of the ground-water and consequent "respiration," as it has been happily called—*i.e.*, the in- and ex-halation of the ground-air and certain diseases—are less complex. In the case of cholera, when introduced, there is, however, probably the intermediate

factor of well-pollution, without which, as in our hypothetical case of high temperature, and a soil and air absolutely free from organic pollution, no such relation would be observed. Certainly, at least, it has not been in our towns supplied with water from works beyond the reach of contamination. Of all meteorological phenomena, humidity is perhaps the most important. Humidity being, as is well known, a relative term, indicating the actual percentage present in the air, at any given temperature, of the total amount of vapour that it is capable of holding at that temperature, it cannot be considered alone; yet probably much of the effect attributed to heat and cold, to prevailing winds, and to elevation, ought to be referred to, or at any rate considered in relation with, humidity. Thus we believe it is not the high altitude, but the dryness of the air and the freedom from fog—*i.e.*, moisture in a state no longer of vapour, but of suspension—to which such health-resorts as Davos owe their undoubted advantages; this view being supported by the fact that precisely the same class of cases are benefited by a residence in places which agree with Davos in the dryness and clearness of their atmosphere, though little above the level of the sea,—while the most enthusiastic advocate of high altitudes would hesitate to send his phthisical patients to a mountain region perpetually enveloped in cloud.

While thus insisting on the difficulties which beset such inquiries, we are far from wishing to represent them as hopeless; we desire to encourage investigation of these questions on new lines, in strict accordance with methods of scientific induction, and simultaneously by observers in different countries, the better to detect the fallacies which come from overlooking the mutually disturbing influences of causes meteorological and social.

THOUGHT-READING.

YET another has been added to the list of scientific societies. We have been favoured with a copy of the first part of the first volume of the proceedings of "The Society for Psychical Research." If it is good to be laughed at, this association has already enjoyed that benefit, and may probably expect to do so still more in the future. We shall not attempt, however, to imitate our facetious contemporary, *Mr. Punch*; we will leave the shafts of ridicule for his skilful hand to launch. The Society is one started by able and thoughtful men for a serious purpose, and, however unlikely it may seem to us that any practical good will come out of it, an association which includes on the list of its officers such men as Mr. Sidgwick, Professor Balfour Stewart, Mr. R. H. Hutton, Professor W. F. Barrett, not to mention others, deserves serious consideration.

The subjects which the Society exists to investigate are briefly these: thought-reading, mesmerism, ghosts, haunted houses, and spiritualism. In the statement of the objects of the Society these are spoken of as "debateable phenomena," and the justness of this epithet cannot be gainsaid. They are further described as "an important body of remarkable phenomena, . . . which, if incontestably established, would be of the highest possible value." It is here that we begin to find ourselves unable to keep abreast of this advanced body of thinkers. Our intellectual perceptions, are, we suppose, too dull to have ever discerned the value of the phenomena in question. We have been told that spirits have revisited the earth, and communicated messages to their friends still in the flesh; but what they had to say has always been of the most commonplace description. Even when the spirit was announced to be that of a person who in life had been of lofty thought, warm sympathy, and wise judgment, the utterances after death have been vulgar, empty, and silly in the extreme. We should have been inclined to think the spirits best left in peace until they could say something more worth listening to. Nor does the faculty of finding things hidden away in rooms, or rightly guessing the kind of spots on a card, seem to us one of the "highest possible value." The chief sense in which these exhibitions seem to us of value is that they are undoubtedly in some respects a mystery, and therefore may be a useful whetstone for the acuteness of inquiring minds. There are persons who take a delight in the interpreting of ciphers, others who envy the task of the detective; and in such the investigation of the phenomena mentioned may excite the keenest interest. These things are all alike in this: that they have some basis in fact. Some of the phenomena of mesmerism are real enough; and spiritualistic manifestations, and even the appearance of ghosts, have been described by persons who were perfectly sincere, and who, we may be quite sure, did have some impression made upon their senses of sight or hearing, the agent of which they could not discover. They also resemble one another in this: that beside a basis of observed fact and sincere belief, there is in the superstructure a great deal of wilful, base imposture; so much, indeed, as to make most persons condemn in disgust the whole alike. It is the business of the Society for Psychical Research, first to dispose of trickery, then to eliminate error, and thus to set before the world carefully sifted facts.

The investigations published at present relate only to thought-reading. Our readers will remember the performances given by Mr. Irving Bishop, to which many men of note in the profession were invited, and on which a good deal was written at the time. Of these experiments, Professor Barrett, Mr. Edmund Gurney, and Mr. Myers (the authors of the reports on thought-reading which we are now criticising) say the following:—"The experiments . . . are never obtained without the very closest proximity, nor without accompaniments of needless flurry and excited pantomime, which are eminently calculated to distract and mislead the attention." Mr. Bishop's so-called thought-reading, as everyone knows, resolved itself simply into the interpretation of the involuntary and unconscious muscular movements of persons whose attention was fixed on some particular object. Similar results have been obtained by Mr. Stuart Cumberland, who entirely disclaims the possession of any peculiar power, and avows that he works simply by the means of communication we have stated. The Committee say in a note that Mr. Bishop has more recently made some experiments with better results; but as they do not discuss these, we may be pardoned for not doing so either.

We come now to observations which are of more importance, because, so far as we can see, no suspicion of deliberate imposture hangs about them. The subjects of these investigations were the children of a clergyman in Derbyshire, of unblemished character and tried integrity. This family had been accustomed to amuse themselves by the "willing" game—*i.e.*, one of the number would leave the room, and in her absence the others would think of some object. The absent one was then recalled, and had to try to guess the object thought of. In this game the children attained great skill; so much so, as to surprise their father, who in consequence gave to their proceedings more attention than one in his position would usually give to childish games. His children's cleverness in this amusement seemed to him so wonderful, that he invited members of a neighbour's family to join with them, and found that they too, with practice, became remarkably expert. The fame of the Derbyshire family reached the Society for Psychical Research, and a committee of that Society (consisting of the gentlemen whose names we have mentioned above) undertook to test the powers of the

children. They accordingly held a number of sittings, either in the clergyman's house, in a hotel, or in a lodging-house. The experiments were of the following kind:—The family, and the persons investigating, assembled in a room. One of the children was sent out of the room, and waited either in a passage or in another part of the house. During her absence the persons remaining thought of something, either of a card, a letter, a number of two figures, or a name. This was written down, and passed from one to another, so that all knew it, and concentrated their thoughts upon it. The child was then recalled, and bidden to guess what had been thought of. Regarding her statement as a purely accidental guess, it is evident that when a letter of the alphabet was thought of, the chances against success in a first trial would be 25 to 1. In the case of a card they would be 51 to 1, and in that of a number of two figures 99 to 1. In the case of surnames the chances against success would be indefinitely greater. Altogether, 382 trials were made. Out of the 382 guesses, 127 were right. Out of 255, in which the first attempt was a failure, in 56 the second proved correct; in 19 other cases the third guess was successful. No more than three were allowed; and in some of the cases of failure the guesser professed inability, and declined to make more than one attempt. Out of the 180 cases of failure, many were partially right, either the suite or the number of the card being correctly given. Those wrong both in suite and number were only a small minority. Taking the odds against success in the case of cards as an average (for cards were most frequently employed, and occupy an intermediate position as to amount of odds), it will be evident that the number of successes made at a first guess by a chance guesser would be $7\frac{1}{2}$.

There are sources of fallacy in performances like this which will suggest themselves to everyone, and which, were the exhibitions made in public for gain, would be looked upon as the natural explanation. We may, therefore, quote what the Committee have to say upon them. Involuntary action, such as movement of the lips, etc., could not reach the child when she was out of sight and hearing. Conscious or unconscious deception on the part of the subject does not apply, as the thing to be wished for was selected and written down by one of the Committee. Collusion by a third party was avoided by the fact that none were allowed to enter or leave the room after the thing to be guessed had been selected, and in one series of experiments by the exclusion of all members of the family either from the room or from participation in the requisite knowledge.

There were wide differences in the amount of success attained in different trials. The presence of the father of the children seemed to increase the percentage of successes. On one day, when there was remarkable ill-success, it was attributed by the children themselves to inertness after an early dinner. The family are themselves convinced that when mistakes are made the fault rests, for the most part, with the thinkers, rather than with the thought-readers. Dull and undemonstrative people make success difficult. The distance between the thinkers and the thought-readers is of considerable consequence. The best results take place when this distance is not more than a yard or two.

The gentlemen whose investigations we have been summarising state that their object is to place these phenomena on such a basis that they must either be accepted as facts or the veracity of those reporting them be called in question; and this we think they certainly have done. But, admitting that everything which they state to have occurred actually did so, it does not follow that it was impossible for anything to have escaped their notice.

It seems to us that their observations show this—that in some organisations thought can be communicated by means apart from the generally recognised modes of perception. How such communication takes place—whether it depends upon some peculiar power, or whether it is simply that some quick children have so trained their perceptive powers that they notice indications of thought, ordinary in kind, but so slight in degree that less skilful observers are not aware of their existence,—upon this we will express no opinion.

THE WEEK.

TOPICS OF THE DAY.

The Army Medical and Transport Inquiry Committee has commenced its sittings at the War Office. In addition to the members whose names we recently published, there was also present Sir Robert Loyd Lindsay, who had been requested by the Secretary of State for War to join the Committee. The proceedings, at the present time, are strictly private, but it is understood that there will be at least four meetings a week, and the allegations of those invalids who have complained of their mode of treatment will be fully inquired into. It is also expected that Sir Garnet Wolseley will be summoned to give evidence before the conclusion of the sittings. If possible, the report of the Committee is to be presented to the House of Commons before the end of the present session.

Further inquiry confirms us in the opinion we have more than once expressed, that the charges made against the Army Medical Department will, in the end, be found to have been, at the least, grossly exaggerated. In the *Gazette* recently published, Sir Garnet Wolseley selects several officers of the medical staff for special commendation. "Brigade-Surgeon Jackson, C.B.," the *Gazette* says, "who has seen service in all parts of the world, has, through the many wars he has taken part in, distinguished himself throughout by his coolness under fire, and in zeal as a medical officer. I would venture to recommend him for special promotion." The same document also states:—"The Medical Department under Surgeon-General Hanbury, C.B., have done everything that could possibly be done for the care and comfort of the sick and wounded. The manner in which the sick and wounded were removed from the fighting line by the bearer company was most satisfactory. The following officers are brought specially to my notice:—Deputy Surgeon-General J. Ekin, Deputy Surgeon-General W. G. N. Manley, V.C., Deputy Surgeon-General J. A. Marston, Brigade-Surgeon O. Barnett, Surgeon-Major G. S. Davie, and Surgeon-Major T. F. Dwyer." Such testimony from the General Commanding throughout the operations in Egypt must have very much more weight with the Committee of Inquiry and the public than any quantity of rumour and gossip and correspondents' letters. We are far from saying that there was no want of medical comforts, of bearers, of attendants, etc., at any time; but we hold that, whatever the shortcomings may have been, and wherever they occurred, they were not due to the Army Medical Officers, and most likely not in any degree to the Army Medical Department even, but to the failure of recently adopted systems.

As, at the present time, every item of intelligence regarding the treatment of the sick and wounded in the recent campaign is eagerly read, it is satisfactory to record the following statement of the officer in command of troops brought to England by the transport *Marathon*. He says—"On the 4th ultimo I embarked at Alexandria with over 250 invalids; many of the cases were very serious. I can bear testimony to the unremitting care and attention of Surgeon-Major J. Walker, who was in charge, and who for the first

four days was in constant attendance day and night; and there can be no doubt that to this care and attention, with skilful treatment combined, is due the fact that a great number of the men were, on disembarkation at Portsmouth, sufficiently advanced towards convalescence to rejoin their regiments direct, without having to be admitted to the Royal Victoria Hospital at Netley. On arrival at Portsmouth, the Quartermaster-General personally visited the 'cot' cases, and ascertained from the invalids that they had no complaint to make."

Recently, in Mr. Justice Chitty's Court, a motion was made by Mr. Romer, Q.C., on behalf of Mr. H. D. Spencer, the proprietor of fifty-three houses in St. Giles's, for an injunction to restrain the Metropolitan Board of Works from taking possession of and pulling down these houses. The buildings in question are occupied by the labouring-classes, but the Metropolitan Board of Works, under and in pursuance of the Metropolitan Streets Improvement Act, require the houses for the construction of the new street from Charing-cross to Oxford-street, and have delivered to Mr. Spencer notice to treat for the same. The plaintiff refuses, and denies the right of the defendants to take and pull down the houses until they have provided habitations in substitution of those in which the tenants of the houses required by the Board are provided. The question turned on the construction to be placed on Section 33 of the Metropolitan Streets Improvement Act, 1877. His Lordship eventually upheld the plaintiff's contention, and granted the injunction.

A somewhat singular circumstance is reported from Maidstone. An alarming subsidence of land has occurred in one of the suburbs of the town; the stream of sewage which usually flows from the County Lunatic Asylum being missed from its ordinary channel, the road was taken up, and a large cavity was discovered, down which the sewer had disappeared. This was immediately filled up with rock, but during the night another subsidence occurred, carrying away not only the sewer, but the garden of an adjoining house. Some hundreds of loads of rock have, it is said, been emptied into the mysterious cavity, but it is not yet filled up. The tenants of the houses in the neighbourhood forsook their dwellings at the first warning, and it is feared that more serious destruction of property will ensue. No satisfactory reason can be given to account for this startling occurrence, nor have we heard of any attempt to discover the cause of the underground subsidence.

A medical member of the Birmingham Board of Guardians has recently called the attention of that body to the objectionable quality of the port wine provided for the sick paupers admitted into the local workhouse. He contended that if in the opinion of the medical officer a stimulant of this nature was required, it was worse than useless to provide an article which could do no good, and might, on the contrary, do much harm. The argument as regards medical comforts is nearly the same as that which applies to medicines; unless both of these are of good quality it is almost waste of time to prescribe them, and although the ratepayers might naturally object to high-class vintages being provided for pauper patients, it is nothing less than fair to the medical officer who is responsible for the health of his patients that a sound and wholesome description of wine should be provided by the guardians. If, as a contemporary remarks, it is worth while to endeavour to cure sick paupers, the port wine provided ought to be of a quality calculated to produce the desired effect.

The Honorary Secretary to the London Fever Hospital at Islington has addressed a communication to the London press, in which, after alluding to the great prevalence of scarlet fever at the present time in the metropolis, and the difficulties of isolating patients, he explains that on going round the Hospital on the 2nd inst. he found that every bed available for scarlet-fever cases was full, and that many applications for admission had unfortunately of necessity been refused. Looking to the present emergency, however, he goes on to say, the Committee have determined to draw on their small capital, and provide temporary accommodation for an additional thirty-two cases. The medical staff and nurses are cheerfully taking on themselves the extra labour, and the Committee trust that the public and those who are benefited will not eventually allow any pecuniary loss to fall on the Hospital. Reference is rightly made to the fact that the late Royal Commission on hospitals for infectious fevers had reported that in their opinion this Hospital had never been a source of the slightest injury or suspicion of injury to those living in close proximity to it.

It is reported from Wolverhampton that the small-pox epidemic, which has been extending for some months past in the district outside, has at length made its appearance in the town. Two persons, one a man of middle age, and the other a girl of sixteen, both living in Eagle-street, Bilston-road, were found to be suffering from the disease, and were promptly removed to the infectious wards at the workhouse. Three other cases have also recently been admitted to the workhouse from the neighbouring townships of Bilston and Portobello.

THE BANQUET OF WELCOME TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

In another place in our columns will be found a report of the resolutions passed at a very influential meeting held on Monday last at the Royal College of Physicians, at which it was decided to give a banquet to the medical officers of the recent Egyptian expedition, in acknowledgment of their gallant services. This movement has, it need hardly be said, no kind or degree of political tinge about it, nor has it any reference whatever to the inquiry being held into the alleged "breakdown" of the Army Medical Department. It is simply a recognition by the profession of the admirable, able, and untiring services rendered in Egypt by our brethren in Her Majesty's naval and military services, British and Indian, like the banquets of welcome that have been given to the so-called "combatant" branches. Our brethren shared to the full all the common hardships, privations, difficulties, and dangers of the late successful operations of war; and in addition they had to wage incessant battle with foes in the soil, the food, the water, and the air—foes which never tire or sleep, and can never be taken by surprise. All this they did, and bore, right gallantly and well; and we, their civil brethren, who sat at home, desire to have the pleasure of meeting them face to face, and telling them that we gratefully recognise how fully they have maintained the honour and reputation of the profession. The banquet will, we believe, be a great success. It has, we know, the most hearty approval of Sir Garnet Wolseley, who will be present with other distinguished officers; and we hope to have among our guests some of our brethren of the Indian Medical Service, whose invaluable help and aid in Egypt and whose enviably efficient organisation have been noticed in our pages, but have been most strangely overlooked in the military despatches. Sir William Jenner will be our chairman, and the banquet will take place on Tuesday, the 21st inst., at Willis's Rooms. The number of those who will desire to dine there on this occasion will, we fear, much exceed the capacity of the rooms; but no larger room was available in any convenient part of town at the necessary time. In these circumstances, it will be well to direct the attention of the reader to the fact that applications for

tickets to attend the banquet should be made to Mr. Eastes, 69, Connaught-street, London, W., *without delay*.

THE REGIMENTAL SYSTEM.

An evidently well-informed critic, who discusses the late campaign in the pages of the current number of *Blackwood*, has not formed a very high estimate of the value of the present system of military organisation as far as the Medical Service of the Army is concerned. "A regiment," he says, "used to have its own doctor and its own medicine-chest; but the plan was expensive, and money is saved by forming general hospitals and carting off soldiers indiscriminately to the care of 'the surgeon of the day.' It is less expensive and is a good plan in peace-time; we have seen the straits it landed us in during war-time. Give the regiments their own doctors, responsible as they used to be for the health of their men; give each regiment its own transport—not a span of half a dozen leaden-coloured carts with no animals to draw them, and no men to drive them except those picked out of the ranks at the eleventh hour; but enough to carry it through a short campaign under the responsibility of the commanding officer."

SIR THOMAS WATSON, BART.

We regret that we are unable to give any better report of Sir Thomas Watson's condition. Since Thursday last week there has not been any increase in the slight degree of paralysis that then existed, but the general weakness has become greater. Sir Thomas has lost flesh, has become more helpless, and has taken little nourishment but milk, and of that not much. His pulse has continued at between seventy and eighty, and of fair quality; his voice is distinct and clear, and his mind perfectly clear. On Monday, Tuesday, and Wednesday this week he was much tried by strangury, due to concentrated urine containing lithic acid and some blood; and on Wednesday the suffering from this cause was very great, and of course exhausting. On that evening, however, Sir Thomas requested that Mr. Lister might be telegraphed for. Mr. Lister happily gave great relief by washing out the bladder; but the report on Thursday was that Sir Thomas was perceptibly weaker, and could take hardly any nourishment.

CROUP IN HOLLAND.

In the *Nederlandsch Tijdschrift voor Geneeskunde* for the present year, Dr. J. Korteweg contributes a long and laborious article on Croup in Holland. After a slight reference to the works of Bretonneau, Guersant, and Trousseau, he quotes the experience of various Dutch physicians in connexion with the operation of tracheotomy, which, although very unsuccessful at first, is at present a measure of acknowledged utility in Holland, the fatal results in many cases being now attributed to the fact that the operation was not performed early enough. Unfortunately for the interests of medical science, Dr. Korteweg comprises under the head of "croup" both diphtheria and laryngitis, and, indeed, he appears to consider the former only an aggravated stage of the latter. Although he gives copious tables of death statistics from Amsterdam and many other Dutch localities, in which croup and diphtheria are classed in different columns, he adduces no evidence whatever to show why a distinction between them should be drawn. He insists very strongly on the influence of weather in the production of croup, and gives statistical tables showing the prevalence of the disease in the cold months of the year. It is evident, however, that the complaint he thus refers to is the ordinary laryngitis of children, which occurs in all countries and at all times, but more especially in cold weather. Diphtheria, on the other hand, is an exceptional disease, capricious in its visitations, occurring at intervals with great violence, attended with fearful mortality, often assuming an epidemic form, eminently infectious and contagious, but uninfluenced, as it would appear, by weather, or locality, or other ordinarily recognisable causes. From the want of this distinction the Dutch statistics regarding croup are of very little value, except as showing that during an epidemic of diphtheria the returns under the head of "croup" are very much augmented. The same want of distinction between common croup (*i.e.*, infantile laryngitis) and laryngeal diphtheria invalidates all the observations made as to the necessity of tracheotomy and the results of that operation in the maladies in question, for while in the former the operation is almost always successful and generally unnecessary, in the latter, though urgently required, it is too often attended with failure even in the most skilful hands.

MEDICAL SOCIETY OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

At the annual general meeting of this Society, held in the Hall of the College of Physicians, Kildare-street, Dublin, the following officers were elected to serve during the session 1882-83:—*President:* William Moore, M.D. *Vice-Presidents:* Francis Robert Cruise, M.D.; Henry Kennedy, M.B. *Council:* J. Hawtrey Benson, M.D.; Fleetwood Churchill, F.C.P.; J. Magee Finny, M.D.; Thomas Fitzpatrick, M.D.; Arthur Wynne Foot, M.D.; Samuel Gordon, M.D.; Thomas Wrigley Grimshaw, M.D.; Brigade-Surgeon Jackson, C.B.; John William Moore, M.D.; Christopher J. Nixon, M.B.; John Mallet Purser, M.D.; Walter G. Smith, M.D. *Honorary Secretary and Treasurer:* Alex. Nixon Montgomery, M.C.P. Pending the institution of the Academy of Medicine in Ireland, it has been arranged that the Medical Society will not meet as usual this session, but that its work will merge in that of the Medical Section of the Academy.

THE EPIDEMIC OF TYPHOID FEVER IN PARIS.

According to the official figures of the Municipality, the number of cases of typhoid existing in the hospitals on the morning of October 26 was 2131. During the week October 26 to November 1 there were admitted 387 new cases, 487 patients were discharged cured, and 61 had died. On the morning of November 2 there were 1967 cases in the hospitals—a diminution of 64. The mean for the seven days was 55·3 for admissions and 8·7 for deaths. During the seven days there occurred in Paris 130 burials of persons dying of typhoid fever—*i.e.*, 18·57 per day. According to the statement of the President of the Municipal Statistical Committee, there occurred in Paris, from August 4 to October 26, 1358 deaths from typhoid. Of these 763 were males and 595 females—*i.e.*, 128 persons of the male sex died to 100 of the female. Of these persons, 356 males and 201 females died in the hospitals, these establishments having admitted during this period 3037 males and 1652 females. The mortality varied much with the age of the patients. Thus 20 boys and 31 girls died under five years of age; 68 boys and 130 girls between five and fifteen; 554 males and 360 females between fifteen and thirty-five; 112 males and 57 females between thirty-five and sixty; and 9 males and 8 females at sixty or above. It is among persons between fifteen and thirty-five that the greatest ravages have taken place; but as regards females, danger commences and stops at an earlier age, so that the age of election is not the same in the two sexes. The President congratulates the Committee that the epidemic has proved far less fatal than was feared at first, while the latest information shows that it is on the decline.

THE TEMPERATURE DURING MENSTRUATION.

DR. KERSCH, of Prague, has drawn up a table of temperatures during menstruation, from which it appears that the normal temperature is not the same in all individuals; it varies between 99° and 97° Fahr. Moreover, during the first days of menstruation the variations in temperature are sometimes more, sometimes less (from 100·5° Fahr. highest, to 98·8° Fahr. lowest). From the second day onwards the temperature gradually sinks, so that on the day after the cessation of the flow it is again normal. It, further, appears that the process of ovulation sets in with a rise of temperature, which in youthful individuals may be as much as nearly 2° Fahr., and is at least 1·25° Fahr. According to Dr. Hennig, of Leipzig, the body-heat rises to about 99·5° Fahr., and again sinks to 98·5° Fahr. before the period, mounts again to 99·5° Fahr. on the day on which the flow begins, falls off shortly before the termination of the period to 97·5° Fahr., then rises again to 98·5° Fahr., at which it remains during the cessation, and immediately afterwards falls to 97·5° Fahr.—altogether three waxings and wanings: one before, one at the beginning, and one at the ending of the process. Hennig did an ovariotomy on a woman aged forty-eight whilst the menses were present, and noted the same evening a temperature of 101·3° Fahr. in the axilla, the pulse not being accelerated. The temperature next day was 101·5° Fahr., and on the third day after the operation 99·5° Fahr. This state of heat of the skin the author thought to be due to the menses. In another case of ovariotomy on a girl aged twenty, where menstruation came on seven days after the operation, the body-heat rose 2·5° Fahr.; the rise of temperature fluctuated during the menstrual period between 1·5° and 2·5 Fahr. (Hennig), and 1·25° to 2·0° Fahr. (Kersch).

A RUMOURED CHANGE IN THE ARMY MEDICAL DEPARTMENT.

OUR contemporary, the *Standard*, has the following:—"We understand that the weight of evidence in favour of a regimental system is so great, that the reinstating of a medical officer on the establishment of every cavalry regiment and battalion of infantry may be regarded as a certainty as soon as Lord Morley's Committee, now sitting at the War Office, has issued its report. Another innovation will, it is believed, be a considerable curtailment of the work outside their legitimate duties at present devolving on medical officers, and the adoption of a better system as regards the command of the Army Hospital Corps." Our contemporary may be inspired; but the greatest secrecy is maintained as to the doings of Lord Morley's Committee, and little, if anything, will be made public until its report has been presented to the House of Commons. We cannot, however, easily believe in a return to the regimental system, for one reason alone—a most important one—namely, expense.

ACETAL AS A HYPNOTIC.

DR. VON MERING read a paper, at the recent meeting of German philosophers at Eisenach, on the value of acetal as a hypnotic (*Berliner Klin. Woch.*, October 23). Acetal is a volatile fluid of ethereal odour, sparingly soluble in water, though some of its derivatives are very soluble in alcohol and water. Experiments were made on frogs, rabbits, dogs, and cats. Acetal first acts on the cerebrum, causing gradual loss of consciousness; it then paralyses the functions of the spinal cord and medulla oblongata, stopping the breathing before arresting the action of the heart. The drug has been administered subcutaneously, by the mouth, and by intravenous injection. Asphyxia, or rather apnœa, was the cause of death when that result ensued. It is remarkable, says the author, that such bodies as alcohol, ether, paraldehyde, acetal, and several other bodies not containing chlorine, act primarily and more powerfully on the respiratory centre; whilst after the administration of such substances as chloroform, chloral hydrate, and bichloride of methylene, the circulation and respiration are pretty equally affected. Eight experiments only with acetal have been made on men: six times there was a notable effect, both in the relief of pain and the procuring of sleep. Further details are promised.

THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-third week of 1882, terminating October 26, was 1077 (581 males and 496 females), and among these there were from typhoid fever 173, small-pox 5, measles 5, scarlatina none, pertussis 7, diphtheria and croup 29, erysipelas 4, and puerperal infections 2. There were also 44 from acute and tubercular meningitis, 180 from phthisis, 20 from acute bronchitis, 50 from pneumonia, 96 from infantile athrepsia (39 of the infants having been wholly or partially suckled), and 27 violent deaths (24 males and 3 females). The number of deaths recorded this week is higher than the mean of the four preceding weeks, but the number of deaths from typhoid has fallen from 244 to 173, while the number of admissions has fallen to 406 received during October 16 to 22, from 741 received during the preceding seven days. As the epidemic loses in intensity, it seems to tend to spread in the other quarters hitherto exempt from the disease. Prof. Colin, of the Val-de-Grâce, entirely denied, in a communication to the Academy, the accuracy of the statement that the epidemic had spread from the barracks. Typhoid fever has not prevailed therein beyond its normal amount, and some of the quarters of the town in which it has made most ravages are at a remote distance from any of the barracks. The other epidemic affections continue to remain below the mean of preceding years, only five deaths each having occurred from small-pox and measles, and none at all from scarlatina.

A NEW USE FOR OLD ENGLAND.

IN a communication to *Knowledge*, Mr. Mathieu Williams has suggested that the typical Yankee, lank and shrivelled, is a "desiccated Englishman," the desiccating process being carried on "by the dryness of the continental climate of America, exaggerated in winter-time by their stove arrangements." Mr. Williams has recently returned to the subject in one of the "Science Notes" that form a very instructive and attractive feature of the *Gentleman's Magazine*. He illustrates and strengthens his theory by some curious facts. Mr. R. A. Procter, in each of his three visits to America, "lost about thirty pounds in weight, which he recovered on returning home." Mr. Williams's son went out to Washington to assist Major Herschel in his pendulum experiments, and his letters soon showed that he was in a high-pressure condition, mental and physical, "although a stubborn total abstainer." Mr. Mathieu Williams writes, "he was evidently in a state of abnormal excitement—a sort of dry-oxygen excitement." From Washington the young man went to New York, and there he became "dazed," and was sent home. "During his short absence," says Mr. Williams, "he had grown thinner and taller, lank-jawed and sallow, displaying all the characteristic symptoms of what I cannot refrain from calling *acute Americanitis*, from which, by the natural operation of his native air, and abundant sleep, he has recovered far more rapidly than was expected." From such instances as these, and supported by other illustrative cases and observations, Mr. Williams concludes that this *Americanitis* must develope, is developing, and has developed constitutional chronic disturbances—or even disease—which may be curable by change

of climate; the most effectual change being a return to that which produced the old stock. "American physicians will presently," he prophesies, "discover this, and recommend their well-to-do patients—those who have worked as only Americans in the pursuit of wealth do work—to turn to the land of their fathers, to breathe the soothing humidities of its anodyne atmosphere, and thereby double the remaining years of their lives, which I believe an overworked American of sixty years of age may do, and when he understands this subject and has sufficient means will do, to such an extent that Old England will become the sanatorium and final resting-place, first of her American children, then of Australians, and finally of all the rest of the continental world, when her mission of overspreading it is fulfilled."

TRANSMISSION OF SYPHILIS.

Dr. Lesser formulates (*Deutsche Med. Zeit.*, No. 41) his experience bearing on this question in three propositions:—1. Both or either of the parents diseased before the impregnation may transmit syphilis to the offspring. 2. Both parents being healthy at the conception, yet the mother can infect the fœtus by means of the placental circulation. 3. The father being infected, the mother remaining healthy till after the conception, the latter may yet become diseased from the fœtus by way of the placental vessels, or her constitution may be so altered as to render her proof against syphilis. This last proposition Lesser gives as tentative, but as best explaining the present known facts.

THE ALLEGED PREVALENCE OF TYPHOID FEVER AT VENTNOR.

A gentleman, who has been residing at Ventnor as a visitor during the past autumn, has addressed a letter to several of our contemporaries, calling attention to the insanitary condition of Ventnor. He asserts that last autumn a large party of his relatives and friends stayed at Ventnor for some weeks; that nearly all of them were ill; that he himself was unwell every time he paid a visit to the place; and that one of his brothers, falling sick, had to be removed to London, where he unhappily died of typhoid fever, said to have been contracted at Ventnor. Further, he points out that the mode of dealing with the town drainage is the cause of these evils, since "the outfall is only a few yards from the shore, close to the pier, and at the end of the parade." Naturally the town authorities are indignant at these damaging assertions, and they have in the most straightforward manner taken steps to refute them. In the first place they invite attention to the annual report of their Medical Officer of Health, Dr. Russell Woodford (recently noticed in these columns), which states that during the year 1881 there were only three cases of typhoid fever in the town. In reference to the present charge, the same gentleman says, referring to the current year. "Up to this day (November 2) there have been only three cases under treatment; of these, two were imported—visitors who arrived with the disease fully developed,—the third was that of a resident; all of these cases recovered. For the accuracy of this information I can vouch." In a matter of such vital importance to the town, the next step was to appeal to the leading medical practitioners of the locality; and these gentlemen, to the number of five, promptly signed a statement to the effect that there is not a single case of typhoid fever under treatment at the present time in the town. Lastly, the Chairman of the Ventnor Medical Sanitary Association, Mr. J. B. Martin, certifies that the statement as to the situation of the sewage outfall is incorrect. The outfall, he says, is far removed from the end of the pier, and carries the sewage of the town so far into the tideway that it passes directly out to sea, and thus never influences the shore. He adds, that immediately on the visit of Dr. Ballard in 1880, who pointed out to the Local Board the shortcomings of the town at that period, a house-to-house inspection was made, in order to see that proper sanitary arrangements were in use, while the main drainage was thoroughly examined, and put in most efficient order; since which period the health of Ventnor has been excellent, and cases of typhoid fever almost unknown. The charges brought against the sanitary condition of Ventnor appear to have been made hastily and inconsiderately, without sufficient knowledge or inquiry. We do not hear, however, that even in such hard case the Ventnor authorities have attempted to whitewash their town by threatening the writer of the letter in question with an action for libel.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The next meeting will be held on Friday, November 17, at 7.30 p.m., at 1, Adam-street, Adelphi, when a paper will be read by Roger Field, Esq., B.A., M.Inst.C.E., on "Some of the Less Recognised but Important Points in the Drainage and Ventilation of Houses."

TUBERCULAR ULCER OF STOMACH.

Dr. Pisek, of Lemberg, records (*Deutsche Med. Zeit.*, No. 41) an instance of the above disease in the dead body of a man thirty-five years old. There were cheesy nodules in the right lung and peritoneum, with also some translucen tubercles in the latter. The mesenteric glands were enlarged and cheesily degenerated. The stomach was moderately large. On the pyloric region of the serosa, which was adherent to the liver, there were some semi-transparent tubercles. The ulcer existed on the mucous membrane near the pylorus on the posterior wall, was rather more than an inch long, and about an inch wide, of oval form; the edges were rugged, thin, undermined slightly, of grey colour, and here and there infiltrated with yellowish granules the size of a pin's head; the ulceration extended as deep as the muscular coat. In the duodenum were two similar ulcers; nothing else in the rest of the intestines. No history of the patient's illness is given. Primary tuberculosis of the stomach is unknown. Tubercular disease of the stomach may, however, exist without affection of the rest of the alimentary tract. The diagnosis is not possible during life.

THE METROPOLITAN WATER-SUPPLY FOR SEPTEMBER LAST.

The report of the Metropolitan Water Examiners for the month of September last records such a satisfactory condition of affairs, that there would seem to be little left to be desired. In dealing with the condition of the water previous to filtration, Colonel Bolton remarks that the state of the water in the Thames at Hampton, Molesey, and Sunbury, where the intakes of six of the London water companies are situated, was good in quality during the whole of the month under notice; and the same remark applies to the condition of the water in the river Lea during the same period. Messrs. Crookes, Odling, and Tidy, in summing up their report, observe that, "Altogether the results of our analyses of 181 samples of water examined during the past month (September) show a continuance of the excellent condition of the water-supply of the metropolis, which we have remarked upon in our previous monthly reports." Dr. Frankland's report shows that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was of even better quality than during the two preceding months, and very much above

the average of the water from this source. With the exception of that supplied by the Lambeth Company, the water was in every case efficiently filtered before delivery. The water drawn from the river Lea by the New River and East London Companies was of about the same quality as last month, being chemically inferior only to the best of the deep-well waters. Both waters were delivered in a duly filtered condition. The deep-well water distributed by the Kent and Colne Valley Companies and by the Tottenham Local Board of Health was, as usual, of the best quality for drinking; and the Colne Valley Company, by softening their supply with lime, rendered it also equally fitted for washing and all other domestic purposes.

UNQUALIFIED ASSISTANTS.

At the Liverpool Police-court "a gentlemanly-looking man of middle age" has been fined £5 and costs for unlawfully using the title of "M.D."; and has been committed to the sessions for having given a false vaccination certificate. The defendant had been, it is stated, assistant to Dr. David Makin Kennedy for some months, and had "managed" a "sixpenny dispensary" for him. It is not stated whether the assistant, who went by the name of Lewis George Wynne, had had any real medical education: but the time must come when principals who employ, knowingly and wilfully, such men will be held liable to punishment as well as the needy assistants.

THE REGISTRAR-GENERAL FOR IRELAND ON THE SECOND QUARTER OF 1882.

The return of the Registrar-General for Ireland for the second or June quarter of the present year records the registration during that period of 32,679 births and 22,874 deaths. In the first case the numbers are equal to an annual birth-rate of 25·7 in every 1000 of the estimated population: in the latter they represent an annual rate of 18·0 per 1000. The birth-rate in Ireland during the second quarter of 1882 is under the average of the rate for the corresponding quarter of the previous five years to the extent of 1·8 per 1000, and it is 1·0 per 1000 under the rate for the second quarter of the year 1881. The deaths are also below those registered in the corresponding quarter of last year to the extent of 740, and the death-rate 0·4 per 1000 lower than the rate for that quarter, and 2·4 under the average for the second quarter of the five years 1877-81. It has, moreover, to be noticed that the returns of pauperism compare very favourably with those for the corresponding quarter of last year, as regards both indoor and outdoor relief, but the number under each head is in excess of the average for the second quarter of the ten years 1872-81, the excess in the case of outdoor relief being very large. The highest county birth-rate was recorded in Antrim, 31·4 per 1000, and the lowest in Mayo, 20·8. Of the intermediate rates the five highest were —Dublin, 29·7; Kerry, 27·4; Waterford, 26·4; Limerick, 26·3; and Westmeath, 26·3. The county death-rates ranged from 11·9 per 1000 in Mayo, to 25·4 in Dublin. Between these the five lowest were Sligo, 12·5; Leitrim, 12·6; Roscommon, 12·9; Cavan, 13·5; and Longford, 13·8. The returns for this quarter, the Registrar-General remarks, point to a favourable state of the public health; but attention is called to the fact that there was a general increase of continued fever, as compared with the first quarter of the present year. The prevalence of measles in Dublin, and small-pox in Belfast, noted in the last quarter's Report, has, however, substantially diminished. A decrease had to be recorded in the mortality from nearly all the zymotic class of diseases; thus, small-pox caused 33 deaths, against 83 in the preceding quarter; measles 298, against 567; scarlet fever 241, against 306; whooping-cough 160, against 183; diphtheria 82, against 120; and diarrhœa and cholera 316, a number considerably below the average. On the other hand, typhus was responsible for 287 deaths, against 227 in the first quarter of the year; simple continued fever 129, against 115; and enteric fever 220, against 177. The different registrars report the deaths of five persons from hydrophobia during the quarter, and refer to the prevalence of rabies, in dogs and other animals, in twenty-six districts. The information concerning this disease was furnished in reply to a special query addressed to the registrars, and those gentlemen supplied the Government with accurate and recent particulars regarding this fatal affection. The Report calls attention to the great value of the system which constitutes the Poor-law medical officers the registrars of their respective districts, as evidenced by the result of their inquiry. If the registrars, it says, had been registering officers, and nothing more, the information which they could have afforded relative to hydrophobia would have been merely a record of deaths from that disease, but as medical officers they become, in nearly all cases, intimately acquainted with all suspected cases of rabies.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

As will be seen by a reference to our advertising columns, arrangements have been made by this Corporation for granting a certificate in sanitary science to Licentiates in Medicine of the College. The first examination will take place in January, 1883, in the following subjects:—1. Engineering—including hospital and house construction, sewage, drainage, ventilation, water-supply: 2. Law—the Acts relating to public health, duties of health officers; 3. Etiology and Prevention of Disease—epidemiology, contagion, infection, hereditary influence, accommodation and conveyance of the sick, management of hospitals; 4. Chemistry—air, water, food; 5. Meteorology and Climatology, and Vital Statistics

THE "LANCET" AND THE CORPORATION OF BRIGHTON.

We are glad to hear, just as we are going to press, that the Corporation of Brighton have abandoned the action for libel which they had commenced against the *Lancet*. In this, we think, they have been well advised.

Dr. Robert Barnes and Dr. J. Braxton Hicks, of London, and Dr. George H. Kidd, of Dublin, have been elected Honorary Fellows of the Obstetrical Society of Edinburgh.

The *London Gazette* announces that Her Majesty has been pleased to place the names of Sir Peter Benson Maxwell and Colonel Charles Brisbane Ewart, C.B., R.E., on the Royal Commission appointed to inquire into and report upon the system under which sewage is discharged into the Thames by the Metropolitan Board of Works.

The Committee of the Jerusalem Hospice Fund have made arrangements for immediately erecting a temporary dispensary at Jerusalem, pending the erection of the buildings on the site granted for this purpose by the Sultan to the English Branch of the Order of St. John of Jerusalem. A medical man has left England to commence the dispensary work in Jerusalem.

Dr. Percy Kidd has been appointed Pathologist and Curator to the Hospital for Consumption and Diseases of the Chest, Brompton.

Mr. Frederick Willcocks, M.D. Lond., M.R.C.P. Lond., has been appointed Assistant-Physician to the Charing-cross Hospital.

H.R.H. THE DUKE OF ALBANY has intimated to the Board of Management of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, that he will with pleasure preside at a public dinner next spring in aid of the funds of the Hospital.

IN the Queen's Bench Division of the High Court of Justice, on Saturday last, Sir Hardinge Giffard, Q.C., applied, on behalf of Dr. Abrath, of Sunderland, for a rule *nisi* for a new trial of the case of Abrath *v.* The North-Eastern Railway Company. The circumstances of the trial will, no doubt, be fresh in the minds of our readers. The rule was applied for on the ground that the verdict was against the weight of evidence, and also of misdirection. After hearing Sir Hardinge Giffard, the Court granted a rule *nisi*.

THE Royal Commission on Metropolitan Sewage Discharge met at 20, Great George-street, Westminster, on the 8th inst. There were present—Lord Bramwell (in the chair); Sir Peter B. Maxwell; Colonel Ewart, C.B., R.E.; Professor Williamson, F.R.S.; Dr. de Chaumont, F.R.S.; Dr. Stevenson; and Dr. W. Pole, F.R.S., Secretary.

PARLIAMENTARY MATTERS.

ON the 3rd inst., Mr. Hopwood inquired of the President of the Local Government Board whether he had received further and complete information from the French Government with regard to the alleged communication of an infectious disease to fifty-eight soldiers of a French regiment by means of vaccination with matter taken from Arab children. Mr. Dodson, in reply, stated that he had not received any further information on the subject, and that it did not appear that the French Government had any to give. But he was advised that the statement in the *Journal d'Hygiène*, that two children served as vaccinifers for 280 men, and that fifty-eight of these men (at least) were operated upon with lymph from one child—could not possibly be accepted as true. He added that it was expressly stated that the child from whom the lymph in question was said to have been taken was in excellent health.

Sir Trevor Lawrence asked the Vice-President of the Council whether it was intended to introduce a Bill to carry out the recommendations of the Royal Commission on the Medical Acts, and when; and Mr. Mundella replied that the report was under consideration, but as yet he could not give any information as to the nature of any legislation that might be contemplated, or as to the order in which it would be taken.

Mr. Pease, referring to the statement in the *Daily News* of October 31, that "the first attempt of the Council of Public Health, composed of Europeans and traders, to introduce the Contagious Diseases Act into Cairo is already a great success," inquired of the Under-Secretary of State for Foreign Affairs whether the Act had been introduced with the sanction of Her Majesty's Government; to which Sir Charles Dilke replied that the Foreign Office had no information on the subject.

In reply to a question suggesting that certain members of the Committee appointed to inquire into the Transport Service, the Army Medical Service, etc., during the late military operations in Egypt, ought not to be witnesses before, rather than members of, the Committee, seeing that they are officially connected with the departments implicated, —Mr. Childers said that as the main object of the Committee is to improve the arrangements in certain respects of those departments, no persons could be more fitted to take part in the inquiry than the Directors of Transports and Supplies, and the Director-General of the Army Medical Department; and, as to the suggestion that the subordinate officers of the departments would be unlikely to give the requisite evidence before their chiefs, he was of opinion that, on the contrary, they will naturally look to their chiefs to see that they have fair play against the attacks which have been made upon them.

On the 4th inst., in answer to some questions about the outbreak of scarlet fever in the constabulary barrack in Arklow, Mr. Trevelyan replied that scarlet fever did break out in the barrack, and two children had died of that disease; that the barrack is the most isolated building in the town; that it has but one vacant wing, which, in consequence of the outbreak, had been occupied by the head constable's family; that the children of the constables had been removed in accordance with the regulations of the force; those affected were sent to hospital, while the remainder went with their parents into lodgings; and that all the children had left the barrack before nine o'clock in the evening. He also stated that the medical attendant had complained of the head constable for inviting the men to express dissatisfaction and want of confidence in the medical officer; but, while the Inspector-General considered the head constable had shown a want of discretion on the occasion, no censure or punishment was administered; and that it was not true that any stoppage had been made from the men's pay for medical attendance.

BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

A MEETING of subscribers to the invitation fund was held, by permission, at the Royal College of Physicians, on Monday last, the 6th inst. There were present—Sir W. Jenner, Bart., Mr. Spencer Wells, Mr. Aikin, Dr. R. Barnes, Sir J. R. Bennett, Dr. Bristowe, Dr. Cholmeley, Dr. Andrew Clark, Mr. G. Cowell, Mr. G. Eastes, Mr. J. E. Erichsen, Dr. Wilson Fox, Mr. Ernest Hart, Mr. Lister, Dr. R. Martin, Mr. F. Mason, Dr. H. Monro, Mr. John Morgan, Sir James Paget, Bart., Dr. F. W. Pavy, Dr. Pitman, Dr. W. H. Platt, Dr. Quain, Dr. Russell Reynolds, and Dr. C. B. Sewell. Sir W. Jenner, Bart., was unanimously requested to take the chair, and presided.

Sir J. Paget moved—"That a banquet of welcome be given at the earliest convenient date to all the medical officers who have recently served in the Egyptian expedition, in recognition of their gallant services." Mr. Hart seconded the proposition, which was carried unanimously.

Dr. Wilson Fox and Mr. Erichsen respectively proposed and seconded the following resolution, which was carried unanimously:—"That the following gentlemen now present [names given above] do form a committee for the purpose of carrying out this object, with power to add to their number; and that Sir James Paget, Bart., be requested to act as chairman of the committee."

Dr. Andrew Clark proposed, and Mr. Lister seconded the proposal—"That the following gentlemen be requested to act as a dinner committee to arrange the details of the banquet, and to report to the general committee if it seem advisable, viz.:—Sir W. Jenner, Sir J. Paget, the hon. treasurer and the hon. secretary (*ex officio*), Mr. Hart (chairman of the dinner committee), Dr. T. Bridgwater, Dr. Cholmeley, Dr. A. Clark, Dr. R. Farquharson, M.P., Sir J. Fayrer, Mr. Cooper Forster, Dr. J. G. Glover, Mr. P. Hewett, Mr. Lister, Mr. John Marshall, Dr. W. M. Ord, Dr. Quain, and Mr. Sibley,—with power to add to their number." This resolution was unanimously adopted.

Dr. Quain proposed, and Sir J. R. Bennett seconded the proposition—"That Mr. Spencer Wells be requested to act as honorary treasurer, and Mr. George Eastes, M.B., as the honorary secretary to the banquet." This resolution was carried unanimously.

Dr. R. Barnes proposed, and Dr. Cholmeley seconded the proposition—"That Sir W. Jenner, Bart., President of the Royal College of Physicians, be requested to take the chair at the banquet; and that the invitations be issued in his name and that of the committee." This proposal was unanimously adopted.

Sir J. Paget proposed, and Dr. Russell Reynolds seconded the proposition—"That medical men only take part in the banquet, except as guests." This resolution was unanimously carried.

Dr. Pitman proposed, and Mr. F. Mason seconded the proposition—"That all the medical officers of the Egyptian expedition (with any other gentlemen whom the dinner committee may consider it desirable to ask) be invited to the banquet." This proposal was carried unanimously.

Mr. Spencer Wells proposed, and Dr. R. Martin seconded the proposal—"That the best thanks of this meeting be, and are hereby, given to Sir William Jenner for the use of this room, and for kindly presiding on the occasion." This resolution was unanimously adopted.

At a meeting of the dinner committee, held on Wednesday, the 8th inst., it was resolved that the banquet take place on Tuesday, November 21, at Willis's Rooms, King-street, St. James's. The price of the dinner-ticket is 30s. All applications for places at the banquet must be made to Mr. George Eastes, M.B., 69, Connaught-street, Hyde-park, London, W.; and notice is hereby given that "the number of places being necessarily limited, applications will be attended to in the order in which they are received." The sum required for the invitation fund has already been almost fully subscribed, although each subscription was limited to two guineas.

The following is the first subscription list to the banquet fund:—

	£	s.	d.
Sir William Jenner, Bart.	2	2	0
Mr. Spencer Wells	2	2	0
Dr. H. W. Acland	2	2	0
Mr. W. Adams	2	2	0
Mr. C. A. Aikin...	2	2	0
Dr. James Andrew	2	2	0
Dr. R. Barnes	2	2	0
Mr. R. Barwell	1	1	0
Sir J. R. Bennett	1	1	0
Mr. W. Bowman	2	2	0
Dr. J. S. Bristowe	1	1	0
Dr. W. H. Broadbent	2	2	0
Dr. T. Bridgwater	2	2	0
Mr. T. Bryant	2	2	0
Dr. W. B. Cheadle	1	1	0
Dr. Cholmeley	1	1	0
Dr. Andrew Clark	2	2	0
Mr. O. Clayton	2	2	0
Mr. W. W. Cooper	1	1	0
Mr. G. Cowell	2	2	0
Mr. John Croft	1	1	0
Dr. L. T. Cumberbatch ...	2	2	0
Mr. T. B. Curling	2	2	0
Dr. J. Matthews Duncan...	2	2	0
Mr. A. E. Durham	2	2	0
Mr. S. Eastes	1	1	0
Mr. J. E. Erichsen	2	2	0
Sir J. Fayrer	2	2	0
Mr. J. Cooper Forster ...	2	2	0
Dr. Wilson Fox...	2	2	0
Mr. W. Fuller	1	1	0
Mr. E. H. Galton	1	1	0
Mr. John Gay	2	2	0
Surgeon-General Dr. C. A. Gordon, C.B.	1	1	0
Sir W. W. Gull, Bart. ...	2	2	0
Dr. S. G. Habershon	2	2	0
Mr. Ernest Hart	2	2	0
Mr. Christopher Heath ...	2	2	0
Mr. Prescott Hewett ...	2	2	0
Dr. C. Holman	1	1	0
Mr. Timothy Holmes	1	1	0
Mr. J. W. Hulke	2	2	0
Mr. G. M. Humphry ...	2	2	0
Mr. Jonathan Hutchinson	2	2	0
Dr. George Johnson	2	2	0
Mr. Sydney Jones	2	2	0
Sir Trevor Lawrence, Bart., M.P.	2	2	0
Mr. Joseph Lister	2	2	0
Dr. Robert Martin	2	2	0
Sir W. Mac Cormac	1	1	0
Mr. Francis Mason	2	2	0
Mr. John Marshall	2	2	0
Dr. R. N. Mitchell	2	2	0
Dr. H. Monro	2	2	0
Mr. John Morgan	2	2	0
Mr. T. W. Nunn	2	2	0
Dr. W. M. Ord	2	2	0
Sir James Paget, Bart. ...	2	2	0
Dr. F. W. Pavy	2	2	0
Dr. W. S. Playfair	2	2	0
Dr. H. A. Pitman	2	2	0
Dr. W. H. Platt	1	1	0
Mr. Henry Power	2	2	0
Dr. W. O. Priestley	2	2	0
Dr. R. Quain	2	2	0
Dr. G. Owen Rees	2	2	0
Dr. J. Russell Reynolds ...	2	2	0
Mr. E. Saunders	2	2	0
Mr. W. Savory	2	2	0
Dr. C. B. Scwell	2	2	0
Dr. A. B. Shepherd	2	2	0
Mr. S. W. Sibley	2	2	0
Sir Henry Thompson ...	2	2	0
Dr. James Wakley	2	2	0
Dr. S. Wilks	1	1	0
Sir Erasmus Wilson	2	2	0
Mr. John Wood	2	2	0

ADVERSE OPINIONS ON TRANSFUSION.—Prof. Verneuil recently objected to the operation as a dangerous one, from which he had never seen any ultimate good derived, while the advantages which are said to attend its employment are obtainable by the hypodermic injection of ether. Recently, also, at the German Congress at Eisenach, Prof. König, of Göttingen, observed (*Berliner Klin. Woch.*, October 2) that formerly he was a warm advocate of transfusion, but that he has come later, like the majority of living surgeons, to think little of it. He has only quite exceptionally, and perhaps never, seen a favourable result follow its use, while from the injection of ether good effects are sometimes obtained. He therefore warns us not again to fall into the former prevalent transfusion-deception (*Transfusionsschwindels*). Prof. Schede stated that he was of much the same way of thinking as König, and now resorted to transfusion much seldomer than formerly.

A REMEDY FOR CORNS.—Dr. Traill Green, in the *Phil. Med. Reporter*, commends from his own experience M. Gezon's remedy for corns, the formula for which is as follows:—Salicylic acid 30 parts, extract cannab. sat. 5 parts, collodion 100 parts. It is applied with a camel's-hair pencil. In four or five days the corn comes off, and the patient should then take a warm foot-bath. A second application may be needed —*New York Med. Record*, October 14.

DESIDERATA IN THE ARTIFICIAL FEEDING OF INFANTS.

M. TARNIER recently read an interesting communication on the above subject, before the Academy of Medicine of Paris. Although artificial feeding is considerably less common, we believe, in England than in France, nevertheless there is far too much of it; and the high rate of mortality of infants under one year of age is unquestionably very largely due to the want of care in the choice and the employment of artificial foods during infancy.

After a few preliminary remarks, M. Tarnier quoted the following official statistics from the Paris returns:—"Births in 1881, 60,856; of these 14,571 were sent out of Paris to be nursed, while 46,285 remained in their homes. At the end of the year, of the 46,285 no less than 10,180 died (*i.e.*, 22 per cent.); of these, 5202 died of athrepsia (wasting diseases), produced almost entirely by improper alimentation; and of the 5202 no less than 3067 were *bottle-fed* infants!

Owing to the unsatisfactory nature of artificial feeding in France, the Academy placed the subject among its prize questions in the year 1878; but nothing very definite resulted from the sixteen essays which were sent in—partly on account of the uncertainty that prevails as to which is the best milk to use for the purpose. The milk of the ass, of the goat, and of the cow are the most employed. M. Tarnier contends that the milk of the ass most nearly resembles, chemically, that of woman, and has been used for a long time past, although not, indeed, extensively. In Holland there are farms of from twenty to eighty of these animals, from which the milk is supplied for infants. In France it is used only exceptionally, on account of the difficulties of its supply. Three important questions, however, remain to be solved:—1. How long may it continue to be given? For about six weeks or two months, according to M. Tarnier; or according to M. Parrot, for a much longer time; after which cow's milk may be substituted. 2. How is it to be given—by the spoon, or directly from the teat of the animal? M. Parrot had recently argued in favour of the milk directly from the animal; but M. Tarnier asks, Is this really necessary? If it be so, then the extensive employment of this kind of feeding for infants at once becomes a very difficult question, as it would be quite impossible to provide suitable accommodation for the animal in large cities. The advantage claimed for suckling direct from the teat is that the milk is then "*living milk*." M. Tarnier was at first greatly taken with this idea of "*living milk*," but it happily occurred to him that, after all, milk ceases to be *living* immediately after it has left the cellule in which it is formed. Even in the galactophorous ducts it is no longer living, he says; and if it remains a certain time in the breast it becomes altered, and its richness is diminished. He doubts whether it may not be preserved as well in a vessel as in the breast itself, if the vessel be placed under favourable circumstances. Leaving aside, however, the question of "living milk," suckling direct from the animal has the advantage of supplying the milk at a proper temperature, and *it avoids the use of a sucking-bottle*. Both these advantages may generally be easily secured: the first by artificially warming the milk to the required temperature; the second by giving the milk out of ordinary glasses. 3. How are the asses themselves to be fed? M. Parrot has seen children become suddenly ill, apparently because the asses, on whose milk they were being fed, were fed with dry food in place of the green fodder they had previously eaten.

Thus it will be seen that there is room for further experiments in this direction. Ass's milk, however, among its numerous advantages, has one serious drawback—it is costly. In Paris it costs 5s. a quart for private families, and about 4s. for establishments which daily consume a quantity. Thus it becomes a matter of importance to find out exactly how long an infant requires this special kind of food, and when it may safely be changed for cow's milk; for the limited means of poorer families make it desirable to substitute cow's milk as soon as it can safely be done.

The goat has the great advantage of being a more manageable animal; it can be more easily stalled than an ass, and can even get from floor to floor. But its milk is not so like

human milk—it is stronger, and the casein which it contains is deposited in the stomach in voluminous flocculi, which are difficult of digestion. At the Maternity Hospital, children have been placed directly to the teats of these animals, but whether given in this manner or from a glass, whether pure or diluted, the result of these trials has not been satisfactory; the digestion has been disturbed, and the infant has always acquired the odour of the goat—*hircum olet*. This fact is so well known that the advocates of goat's milk always recommend white animals without horns, as having a less penetrating odour than others. M. Parrot has also tried this milk, and without greater success. He, however, attributes the faults of the milk to the unnatural circumstances in which the animal is placed when kept in cities or in any state of confinement.

Cow's milk, like that of the goat, is strong, and differs considerably in composition from human milk; its casein deposits in larger flocculi than either human milk or the milk of asses, and it is therefore more difficult of digestion. On the other hand, it has the advantage of being abundant and cheap. Then the question arises, How long after calving is the milk suitable for the purpose? The milk is, of course, also affected by the mode of living. A cow kept shut up in a stable is apt to become tuberculous, and her milk unsuitable for artificial feeding. On the other hand, it is stated that the milk of cows fed entirely in the fields on green food is "worth nothing at all" for the purposes in question.

Dr. Albrecht, of Neuchâtel, speaking at the Congress of Salzburg in 1881, said that green food, grains, and oilcake ought not to be allowed. According to this gentleman, the food of a milch-cow for the twenty-four hours should consist of ten pounds of chopped straw, five pounds of barley-meal, and three pounds of crushed oats made into a mash with water; in addition to this a mixture of twenty pounds of straw and hay or aftermath (second-crop hay).

Should cow's milk be given fresh or after boiling? M. Tarnier has always preferred fresh milk, although many medical men who have studied this question think that the milk should be boiled. Should the milk be given pure or diluted? About this there can be little doubt. The dilution (*coupage*), however, must vary with the age of the child, and somewhat in each individual case. Then comes the question, With what should the fluid be diluted—fresh water or boiled water, or distilled water as appears to be in vogue in America? Should the water be sugared or not? Next must be decided the degree of dilution. Would toast-water, or barley-water, or rice-water, or broth answer as well as, or better than, plain water? Considering these questions and many others that might be put, M. Tarnier said he did not wonder that medical opinions are unsettled, and that medical men should feel somewhat embarrassed when consulted on the matter. He alluded to the difficulty of securing good milk, in the first instance, in consequence of the many adulterations to which it is liable, and of the want of suitable cowsheds in Paris. He urged on the Academy the need of initiating reform in this matter, and concluded his paper by formulating certain proposals, from which we select the following:—1. The life of young infants can only be preserved by maternal nursing. This must, therefore, be encouraged by every means in our power. 2. If the mother's milk is insufficient it may be supplemented by other food. 3. Suckling by a wet-nurse is favourable for the nursling, but detrimental to the nurse's own child. 4. Artificial milk is much inferior to maternal milk; its use is always surrounded by considerable difficulties, however we may try to avoid them, and whatever milk we use. It should never be had recourse to except when essentially necessary. 5. To solve many of the difficulties inherent to the subject it would be well for the Academy to undertake an experimental inquiry. The subject is one of great interest, and as pressing in large cities in England as in Paris.

Pilocarpin in Rabies.—Prof. Nocard, of the Veterinary School, states, as the conclusions he has arrived at from the performance of many experiments on animals since 1878, that pilocarpin exerts no curative or prophylactic action in rabies, and that it does not produce in animals the subjects of rabies any attenuation of the crises which characterise the furious form of the disease.—*Jour. de Thérap.*, October 10.

FROM ABROAD.

Indications and Contra-indications of Tracheotomy in Croup.

(*Continued from page* 564.)

From the nature of things we are not always able to agree as to the degree at which this second period has arrived, because we have to do with shades of difference which everyone judges for himself. But I have generally observed that the partisans of early operation wait, before commencing, a sufficiently long time after the dyspnœa had commenced for the production of a difficult and persistent obstruction to respiration and a manifest disturbance of hæmatosis. In doing so they showed that they had a precise idea of the efficacy of the operation, an efficacy which is only exerted against the difficulties which the air finds in traversing the larynx. Is there any means of proving the existence of this difficulty and of measuring its intensity in a sufficiently precise manner? Yes; and we have in it the possibility of recognising the utility and opportunity of surgical interference. Suffocative paroxysms, taken alone, have only a relative value, seeing that they are found also in simple laryngitis, and in stridulous laryngitis, which is also known as false croup. They borrow the largest share of their signification from diphtheritic angina, as we have seen; but they derive it also, and perhaps more, from the laryngeal hissing (*sifflement*) and from a peculiar kind of difficulty of respiration which persists during their interval. It is habitually after the first paroxysm of suffocation that the respiration becomes extremely hissing, or tightened rather, so that we hear the air traversing the glottis with friction, and perceive that in order to obtain this result the inspiratory powers are all brought into play in an exceptional manner. At the instant of inspiration the epigastric region is depressed, and the false ribs, instead of being raised externally, are carried inwards. This result is due to the contraction of the diaphragm and the action of atmospheric pressure, the air not entering sufficiently quickly by the larynx to fill the vacuum which tends to form in the chest. It is from the same causes that the supra-clavicular depression is rendered deeper at each inspiration when the dyspnœa is very great. These signs of a laborious inspiration have an extreme importance, because not only do they indicate an intense dyspnœa, but this particular species, which depends upon a notable diminution in the air of the glottis, and which will certainly disappear immediately after tracheotomy has been practised. This respiratory disorder, to which is given the very expressive name of traction (*tirage*), commences most frequently, as we have said, at the same time as the first paroxysm of suffocation, or it may precede this a little; or, again, it may exist alone in the cases in which no paroxysm has occurred. It is at first only slight, but increases progressively in distinctness. It is when these two symptoms—paroxysms of suffocation and dyspnœa with *tirage*—coexist, and that already for some time (a day or half a day), that I have seen the partisans of early operation advise or themselves perform tracheotomy, and I am then entirely of the same advice with those who do act thus. There may then be no trace of cyanosis, and still less of analgesia or anæsthesia; but asphyxia has nevertheless commenced. The children are very restless, changing their position every instant, and can sleep tranquilly only during a very short period. They are of a peculiar paleness, and, in a word, they exhibit the phenomena of transition between the second and third periods, and may be regarded as on the limits which separate the one from the other. In practice, this is the instant at which every physician who is free in his determination should decide for the operation; and I am of opinion that, performed at this time, it offers as much chance of success as if it had been hastily resorted to immediately after the first suffocative paroxysm. The child is nowise exhausted, the functions have undergone no derangement that they cannot recover from in a few minutes after the operation, and the surgeon has a well-nigh complete certainty that he has not performed an operation that might have been avoided. Study the cases of croup which will enter our wards—those of them to go out again, which are not too far advanced on admission,—and you will see that it is possible

to choose the precise moment when the operation is opportune, efficacious, and obligatory if we would not run risks prejudicial to these patients. For it would be to expose the patient to such to wait any longer.

I have, nevertheless, somewhere stated that it is never too late to operate; but between this and advising the awaiting the ultimate period before operating there is a great difference. It is never too late, for, according to statistics which I have published, of children operated upon *in extremis*, these have furnished a very remarkable number of recoveries—viz., seventeen out of fifty-three,—but nothing tells me that the number would not have been larger had the operation not been so delayed. Reasoning indicates this, seeing that the effects of prolonged asphyxia, carried too far, sometimes disappear with difficulty after the entrance of air has been rendered free. It is under these conditions that we find infants making incomplete inspirations whenever the feather of a pen is introduced into the trachea, or when they are stimulated to induce the reflex action of the bulb. This does not resume its functions, and the congested and atelectasised pulmonary lobules are only partially penetrated. Practised at this ultimate period, too, the operation is a most delicate one; for it must be rapidly terminated, and the entrance of blood into the trachea, hesitation in introducing the canula, or any false manœuvre may occasion death. You should, therefore, avoid waiting so late whenever you can, and I am unable to understand the advice that has been given to take cutaneous anæsthesia as a guide, and to regard this phenomenon as indicating the moment for interference. When anæsthesia exists, asphyxia has already commenced, and there are no plausible reasons for expecting the disease to retrocede. I cannot see, therefore, why for this asphyxia, tracheotomy, which will certainly triumph over it, should not be resorted to without delay. I do not mean to say that a child operated upon while under complete anæsthesia cannot recover. I have just stated the contrary; and I believe that under this condition tolerably numerous cures may be obtained, but less numerous (as statistics show) than when the operation is performed earlier. Moreover, we must bear in mind certain conditions to account for the probable result of a late operation, that is performed in more than *in extremis*. This is more likely to succeed as the croup is more simple, that is, when the local obstacle to the entrance of air is the leading feature. Expectation is then attended by far less danger than in the opposite case—that is, when the croup supervenes in the course of very marked depression, and which may be regarded as infectious. Under this condition it will be more perilous to allow the asphyxia to continue, inasmuch as it is a cause of change in the blood and the strength, added to the influence of the diphtheria, and operating in the same direction. It is proper, therefore, unless we abandon all idea of tracheotomy, to have recourse to it in good time, in order to rescue the patient from the pernicious influence of asphyxia. M. Barthez well understood and exposed this practical point when he said—"If the croup is infectious, the operation should be performed during the second period; while, when it evidently is not so, medical treatment may be tried, and we may wait until the end of this second period before operating."

To sum up, then, it is at the end of the second period that the formal indication for opening the trachea most often exists. Still, besides the case of diphtheritic infection, there are also other special circumstances which may compel us to anticipate this moment. If the paroxysms of suffocation, even while leaving the respiration pretty free in the intervals, become sufficiently violent and long that death may be the result, we should not wait. If you are at a distance from the residence of the patient, and uncertain whether you could reach him in time for the operation, it is also proper, in a case of undoubted croup, to practise tracheotomy when the dyspnœa becomes somewhat intense, if a suffocative paroxysm has occurred, and if the phenomena of *tirage* begin very distinctly to manifest themselves. Asphyxia, properly so called, is not yet present, but it cannot fail to appear, since the entrance of air is insufficient; and perhaps its progress may be sufficiently rapid to prevent timely intervention. The general conclusion from all that I have said is that laryngeal asphyxia forms the true indication for tracheotomy, and that this should be performed at the end of the second period.

(To be continued.)

REVIEWS.

Chapters in the History of the Insane in the British Isles. By DANIEL HACK TUKE, M.D., F.R.C.P., etc. 8vo, pp. 548, with four Illustrations. London: Kegan Paul and Co. 1882.

THE unassuming title of Dr. Tuke's book is misleading to this extent, that it gives little indication of the store of erudition that the book contains. It is indeed an historical record of the great conflict that has raged for a century over the unfortunate victims of the battle of life—a conflict to which each successive generation of the family of Tuke has furnished an Achilles to fight for their helpless and stricken Patroclus. Others besides the modern representatives of Mr. Square will recognise an accordance with "the eternal fitness of things" in the fact that it has been reserved for a member of this family to sing the pæan of victory and to chronicle the events of the war.

Dr. Tuke's account begins with the treatment of insanity among our Saxon forefathers, and he has accumulated a quantity of curious information as to their practices, which seem to have been much more kindly and humane than might have been expected. Incidentally he removes from the venerable name of Cornelius Agrippa a large portion of the weight of contumely which it has borne so long. The vital interest of the book begins, however, with the detailed account of the founding of Bethlem, and its reception of lunatics about the year 1403; for from this time begin the sickening accounts of the treatment of lunatics in the "good old times." Here we find, described with the passionless accuracy of a photograph, the infernal torments to which these unhappy beings were condemned. Fetters, cunningly contrived to inflict the maximum of misery, and to shackle the movements of every part of the body—handcuffs for the wrists, gyves for the feet, belts and chains to pinion the arms to the sides, and bars of iron to fasten the leg-fetters to the waist; chains, "heavy chains," and "very heavy chains"; rigid stocks for the neck, and muzzles for the mouth: these formed the lunatics' personal apparel. The conception is not complete without the remembrance that these chains could be, and were usually, fastened to staples in the floor or the wall. Other clothing the lunatic very often had none, and through the heats of summer and the bitter winter nights, he or she—for men and women were treated impartially alike—cowered on the bare ground, or on soaking straw, and longed for death to set them free. Add to this that many of them lived in dark cells, that the opening of the door, which was the sole means of admitting light, admitted at the same time the keeper with a formidable whip, which he used not only as a punishment, but avowedly as a curative agent; add that these occasional openings of the door only partially allowed the escape of a stench which is described as "insupportable"; add that, when welcome death at length arrived, their limbs were sometimes so contracted by long-continued immobility that "considerable dissection" was occasionally required before the remains could be straightened out in the coffin,—and we have a picture of horrors compared with which the descriptions in Dante's "Inferno" are scenes of gentle enjoyment. It is not to be supposed that this system of brutality was carried on furtively or in secret, or even that it was looked on as a deplorable necessity. It was ostentatiously exhibited, justified, and supported. Not only was Bethlem in the last century a show-place, to which the fine ladies, the wags and wits, of that time resorted for amusement,—not only did the Governors of Bethlem declare in 1815 that to keep a man chained for ten or twelve years in an "ingeniously cruel" manner was, "upon the whole, rather a merciful and humane than a rigorous and severe imposition,"—but, so late as 1832, a Bill to put a stop to these atrocities was characterised by no less a person than Lord Brougham as "one of the most abominable pieces of legislation that was ever seen." It may indeed seem incredible in these days of humanitarian legislation, when workmen are prevented by law from working too many hours a week, lest it should injure their health; when philanthropy, having overflowed every channel of expression at home, has gone abroad to protect the aborigines; when hard labour is inflicted for overdriving a horse, and fine and imprisonment for poisoning a frog; when, in fact, no living creature can

be tortured with impunity except a wife,—that such barbarism should have been allowed and defended within such recent times. But it must be remembered that those times, comparatively recent though they be, were really times of barbarism and brutality in all conditions of life. It must be remembered that they were times when children at school were punished with brutal severity; times when, for publishing his opinions, a man's ears were cut off, and his flesh branded with hot iron; times when, for petty larceny, a man was hanged; times when sailors were keel-hauled and soldiers died under the lash; when the law allowed the press-gang to tear a man from his family, his home, his business, and his country, and if he tried to escape, allowed him to be hanged as a mutineer or shot as a deserter; times when Dr. Sangrado was the physician and Mr. Crab the general practitioner. When these things are borne in mind it will be seen that the inhuman treatment of lunatics was but a part and an indication of the general brutality of the age.

Pinel in France, and William Tuke in England, independently of and unknown to one another, began about the same time that practice of treating insane people with humanity which has rendered their memories immortal. The dawn of a new creed lit up first the highest intellects, and the light of mercy and love spread gradually downwards, until at length the plains of average intelligence are flooded with its splendour. That it is better to soothe a patient than to coerce him; that restraint aggravates the evils that it is intended to remedy; that it has a pernicious moral effect; that by preventing exercise it impedes recovery; that it is liable to frightful abuses; that patients can be as effectually controlled without it as with it; and that the best form of restraint is self-restraint,—all this was false doctrine, heresy, and schism to those inert minds that, in the most various circumstances, agree in maintaining that whatever is, is best. Those who would read the history of this great struggle between the forces of light and the forces of darkness will find it set forth at length and with admirable perspicuity in Dr. Tuke's pages. There they will read of the gradual advance of that beneficent process which has changed our asylums from dens of cruelty, misery, and despair, into hives of industry and scenes of merriment. To quote from a speech of Lord Shaftesbury's, whose name will go down to posterity with those of Pinel and Tuke, as having made compulsory by law those reforms which they initiated—"The filthy and formidable prison is converted into the cleanly and cheerful abode; the damp and gloomy courtyard is exchanged for healthy exercise and labour in the field and garden. Visit the largest asylums, and you will no longer hear those frightful yells that at first terrified and always depressed the boldest hearts. Mechanical restraint is almost unknown; houses where many were chained during the day, and hundreds, I will assert, during the night, have hardly a strait-waistcoat or a manacle in the whole establishment; and instead of the keeper with his whip and his bunch of leg-locks, you may see the clergyman or the schoolmaster engaged in their soothing and effective occupations." This was spoken thirty years ago. The same speech might now be made without any of those reservations which were then advisable. It is a noteworthy fact, with respect to the agents by whom this change was carried out, that several members of the family of William Tuke, the founder of the York Retreat, are now engaged in the care and treatment of the insane, and that a descendant of Jepson, its first superintendent, is at this day superintendent of one of our public asylums.

To follow Dr. Tuke into his account of Chancery lunatics, idiots, and imbeciles, space does not allow, but it may be said that the whole of the book, stored as it is with an abundant accumulation of facts, and penetrated throughout by the kindly and genial spirit of the author, is of interest not only to the specialist in insanity, not only to the medical profession, but possesses a very real and vivid interest for the general public. It would greatly add to the facility of reference if the year to which the text refers were placed at the top of every page.

One more quotation from Lord Shaftesbury must be made. Speaking of private asylums, he says—"When I look into the whole matter, I see that the principle of profit vitiates the whole thing; it is at the bottom of all these movements that we are obliged to counteract by complicated legislation," etc. After this opinion, given by an authority so eminent, so disinterested, and so well qualified to judge, the abolition of private asylums is a question of time only. We do not say whether this abolition will be a benefit to the community or a great mistake, but that it is inevitable. It may be safely said that if an archangel were to come down from heaven to conduct a private asylum, yet if he derived a profit from retaining his patients, the public would never cease to suspect him of detaining them too long.

On the Climate and Fevers of India. Being the Croonian Lectures delivered at the Royal College of Physicians in March, 1882. By Sir JOSEPH FAYRER, K.C.S.I., LL.D., M.D., F.R.S., Honorary Physician to the Queen and to the Prince of Wales, Physician to the Secretary of State for India in Council. London: J. and A. Churchill. 1882. 8vo, pp. 278.

THE profession, both in the East and in Europe, are again indebted to Sir Joseph Fayrer for a large instalment of the records of his Indian experience, stamped in every page with the impress of verity and of closely appreciative observation. In these lectures the author describes Intermittent, Remittent, Ephemeral, and Enteric Fever as they occur in India. The importance of this subject is evidenced by the fact that, in the year 1879, the registered deaths from all causes in India, out of a population of 187,105,833, were 4,975,042, of which no fewer than 3,564,035 were from Fevers. Our readers must be aware that, of late years, there has been a tendency in India to deny the existence of the marsh poison as a distinct entity, and to maintain that what all used formerly to concur in designating Paludal Remittent Fever is, in reality, Continued Fever—principally Enteric. One of the most recent consequences of the active investigation and discussion of this very important question is the establishment of the fact that, in the three Presidency cities—Calcutta, Madras, and Bombay, the only places in India where the English system of sewerage exists,—true Enteric Fever occurs, but is by no means largely prevalent. Thus, Sir Joseph Fayrer cites a table, which shows that, in the ten years 1871-80, the annual admissions of cases of this fever to the Medical College Hospital, Calcutta (the largest hospital in India), were only 3, 5, 9, 5, 6, 6, 1, 0, 2, 0. The City of Madras appears to be nearly free from the disease; the existence of which in Bombay City is scarcely admitted. In his recent work on Spirillum Fever, Dr. Vandyke Carter mentions that "in seventy-four autopsies of Native patients dying from 'remittent fever' during 1877-78, intestinal lesions like those of Typhoid were found four times." This being the case, it becomes evident that the very great majority of the three and a half millions of registered Fever deaths which occur annually in India are from Paludal Remittent. Justly weighed, this fact is one of the mostly vitally important suggestiveness to us in the United Kingdom. True, we Londoners do not perish in vast numbers annually from ill-conditioned tertian, as our predecessors did in Sydenham's time; still it would be difficult to show that the great marsh tracts to the east and west of our city have undergone any really valid improvement since the seventeenth century, and there are very strong grounds for the belief that marsh poison takes great part in the development of many of London's direst maladies in the present day. We are told by Brigade-Surgeon Marston that "medical officers have utterly failed in India to satisfactorily trace out the intimate connexion of *the Disease*" [Enteric Fever] "*with filth-causes of specific infection*, with which, according to European authorities, it is invariably connected";(a) and some Indian observers are inclined to think that the True Enteric Fever of that country is largely due to "Climatic causes," of which marsh poison is the chief. Ague still occurs in London, but not to a very remarkable extent, but we can never cease to suspect that to the demons of Plague, Typhus, Enteric Fever, Scarlatina, Diphtheria, Erysipelas, marsh vapour is the very breath of life. This question is an old one, but it is to be regretted that it does not appear to be constantly present in the minds of our physicians, and especially of those practising in London. It would be well that a commission, under the presidentship of Sir Joseph Fayrer, should investigate it fully. No man living understands paludal fever, in all its maskings and complexities of type, more thoroughly and practically than he does, or wields an abler pen in illustrating its multifarious phases.

(a) We are not in accord with the medical officers in this view.

PROVINCIAL CORRESPONDENCE.

IRELAND.

—— Dublin, November 7.

Opening of the Medical Session: Adelaide Hospital, House of Industry Hospitals, Meath Hospital.

At the Adelaide Hospital, Peter-street, the inaugural address of the session was delivered by Dr. Kendal M. Franks, one of the Surgeons, on Wednesday morning, November 1. Dr. William Moore, President of the King and Queen's College of Physicians, presided. Dr. Franks selected as his subject the application of the germ theory of disease to surgery, which he said was one of the burning questions of the day. He proceeded by different illustrations to apply the theory, and step by step he lead his hearers (as he conceived) from a condition of agnosticism to the firm faith in the germ theory of putrefaction. He then went on to show some of the results which the germ theory has attained when applied by such men as Pasteur, Lister, and Koch—men whose scientific acumen will allow them to accept no proposition till they have examined it, and satisfied themselves as to the foundation on which it stands. These men, he said, have accepted the germ theory, not as the outcome of an enthusiastic imagination, but as the legitimate offspring of a logical sequence. They have tested its value in the vegetable kingdom, and have been rewarded by the results; they have applied it to animals, and they have found that it has not failed. They have brought it to bear as an untried weapon in fighting against diseases which have ravaged humanity; they have found it still victorious. He further said that the germ theory promises to crush hydrophobia beneath our feet, and that experiments are being made to show whether by a process of inoculation, after the victim has been bitten, he may not be protected against the dreaded outburst of the disease. He spoke of the researches and the discoveries of Pasteur and of Koch; and, in conclusion, said: "Such are some of the developments of the germ theory, and such are the rich fields it opens up before us. The privilege is accorded to you to go in and possess them. The great Alexander wept because there were no worlds left for him to conquer. You need not pause and weep, or share his regret. Boundless regions of unknown wealth lie before you, rich in blessing for mankind. But you must be prepared to conquer them. It behoves you to rise and gird on your sword—the weapon of honest industry, kept bright by daily use, untarnished by idleness, unblunted by prejudice."

The "introductory" at the House of Industry Hospitals was given by Mr. William Thomson, Surgeon to the Richmond Hospital, in the theatre, on Thursday, the 2nd inst. The lecturer sketched the relation of medicine to surgery, and the influences which have most power in giving an increased success in operative surgery. At the present time there appeared to be hardly any part of the body too far removed to be reached by the surgeon's knife, but this would not have been possible had not the torch of medicine gone before to light the track they were to travel, and make their way plain. It was in proportion as they advanced in the knowledge of medicine that surgeons had been enabled to advance their art, and achieve the splendid triumphs which made the nineteenth century the greatest in the history of surgery. But the science of sanitation had also largely aided this progress; and he dwelt at length on all that had been done for surgery by sanitary improvements of all kinds, pointing out its culmination, as it were, in antiseptic surgery and its triumphs. Mr. Thomson concluded by stating that at no time were there workers so many, so thorough, so industrious; and at no time have the demands upon energy been so urgent. The school of medicine and surgery in Dublin to-day was in no sense inferior to any that had gone before. Its physicians were as able, its surgeons as bold and dexterous, its teachers as profound, at least, as they had been at any time in their history. In the presence of men whose names were known throughout the world as physicians and surgeons—men of advanced scientific attainments and educated gentlemen,—he repudiated, with all the energy he could command, the statement that the teaching in this city was degenerating. He did not dissent from any eulogium on the dead past, but he did dissent from that miserable doctrine that with it they had buried all genius and power, and that all that remained was an inheritance of commonplace capacity.

On Monday, November 6, the session at the Meath Hospital and County Dublin Infirmary was inaugurated with an address by Mr. Philip Crampton Smyly, one of the Surgeons of the institution. There was a very large attendance of visitors and students. Dr. William Moore, President of the King and Queen's College of Physicians, occupied the chair. In the course of an admirable address, Mr. Smyly spoke of the considerable improvements that had been made in the Hospital since the summer, the result being that it is now a pure and clean building, with bright and well-ventilated wards. He referred also to a most important change that had taken place in medical education: the Royal College of Surgeons had instituted a new mode of examination, and instead of one final examination on most complicated and various subjects, they had in their wisdom substituted sessional examinations. In this way the process of testing the student's knowledge was brought into immediate contact with the process of teaching, and practical courses of lectures had been substituted for theoretical. He hoped this would be more fully carried out, and the yoke of compulsory attendance on lectures removed from the neck of the much-enduring student. The late Professor Porter had said the fact was that the world, in rolling on, had rolled lecturing out of use, and, consequently, out of fashion; and this was the saying of one of the most successful lecturers.

OBITUARY.

GEORGE CRITCHETT, F.R.C.S.

The profession will have heard with great regret of the death of Mr. George Critchett, one of the most eminent among the ophthalmic surgeons of the metropolis. He died, at the age of sixty-four, on November 1, from enlarged prostate and cystitis. He had been ill for some weeks, but it was not till a few days before death, we believe, that his illness assumed an alarming aspect. He became unconscious only a few hours before death. He was attended by Mr. Henry Morris, and was seen at times also by Dr. Andrew Clark, Sir Henry Thompson, and Mr. Walter Coulson. George Critchett was born at Highgate in 1817. When it was decided that he should enter the medical profession he became a pupil of Mr. Scott, then Surgeon to the London Hospital, and was apprenticed to the Royal College of Surgeons. In 1829 he became a Member of the College, and in 1844 a Fellow by examination. Soon after he passed for the membership he was appointed Demonstrator of Anatomy at the London Hospital, where he was later on in his career Assistant-Surgeon, then Surgeon, and Lecturer on Ophthalmic Surgery. About the time that he became Assistant-Surgeon to the London Hospital he was appointed on the staff of the Royal London Ophthalmic Hospital, and became successively Assistant-Surgeon and Consulting Surgeon to that institution. He was also for some years Ophthalmic Surgeon to the Middlesex Hospital. Mr. Critchett was elected a member of the Council of the Royal College of Surgeons in 1870; during two years he was President of the Hunterian Society; he was President of the International Congress of Ophthalmology at its meeting held in London in 1872, Vice-President of the Ophthalmological Section of the International Medical Congress at London in 1881; and at the time of his death he was a Vice-President of the Ophthalmological Society of the United Kingdom. He was an active and valued member of some of the medical societies in London, an Honorary Member of the Academy of Medicine at Brussels, and a Corresponding Member of the Imperial Academy of Medicine at Rio de Janeiro. Mr. Critchett did not contribute largely to the literature of the profession, but among his writings were "A Course of Lectures on Diseases of the Eye," published in the *Lancet* in 1854; a paper on "Extraction of Cataract in Cases of Closed and Adherent Pupil," in 1856; a pamphlet on "The Operation for Strabismus by the Sub-conjunctival Method"; a valuable essay on the Linear Extraction of Cataract, read before the Ophthalmic Congress at Heidelberg in 1864; and a paper on the Treatment of Superficial Affections of the Eye, read at the meeting of the British Medical Association in 1873. Mr. Critchett attained great distinction and success in the department of practice to

which he especially devoted himself, and had a high reputation as a very skilful operator. He introduced some new methods of treatment of marked value, as his "New Method of forming an Artificial Pupil by tying the Iris, or Iridesis"—an operation which he described in No. 5 of the *Ophthalmic Hospital Reports*; and the operation now usually performed in this country for the enucleation of the eye. Ophthalmology has made vast progress in science and art since the commencement of Mr. Critchett's career; the ophthalmoscope, and other new methods of observation, research, and treatment have been introduced; and Mr. Critchett was an active and skilled co-worker in furthering this prog ess, and he kept himself to the last well abreast of ophthalmological science and practice. He was held in great esteem throughout the profession, and his kindness of heart, his generosity, and his social gifts greatly endeared him to a wide circle of friends. His son, Mr. Anderson Critchett, is known to the profession as having devoted himself to the department of practice in which his father was so eminent.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 7.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

THE minutes of the previous meeting having been read and confirmed,

DR. PYE-SMITH read the report of the committee appointed at the last meeting of the Society to examine and report upon a heart exhibited by Dr. Norman Moore, showing a constriction below the aortic orifice. The committee fully agreed with the description of the specimen given by Dr. Moore; they were not aware that any precisely similar case had been recorded. They were of opinion that the valve-like appearance and the constriction probably resulted from changes which did not take place simultaneously; but, looking to the entire absence of any evidence of endocarditis, they considered that the changes must be assumed to have taken place during intra-uterine life. The report was signed by Dr. Pye-Smith, Dr. Payne, and Dr. Coupland.

TRAUMATIC HÆMATOMA OF THE SPINAL CORD.

MR. KESTEVEN showed a specimen of traumatic hæmatoma of the spinal cord, and gave a history of the case. The patient was a young man, and three months before he came under observation he received a blow on the back, from which he felt no ill effects for a month. He then began to suffer from pain in the right side. When he came under treatment one of the dorsal spinous processes (the seventh) was displaced, and there was tenderness over it. Later on gradual loss of power in the legs came on, but there was no loss of sensation; the knee-reflex and ankle-clonus were excessive on both sides; after a time the paralysis became more marked in the right leg; later on, jumpings in the legs, incontinence of fæces, and retention of urine supervened, followed by cystitis, bed-sores, and death. Various modes of treatment were adopted, including the application of the actual cautery to the neighbourhood of the displaced vertebra, without any success. Death occurred four months after the accident. At the autopsy the seventh dorsal vertebra was found displaced, and around this there was a dark-purple firm swelling, which extended over the bodies of the sixth and eighth dorsal vertebræ. The spinal canal opposite the displaced vertebra was much narrowed, and here the spinal cord was compressed. Examination of the spinal cord after hardening revealed changes confined to this region, and consisting mainly of wasting of the motor cells of the grey matter and a diminution of the neuroglia corpuscles. The rami communicantes to the solar plexus at this level were both destroyed, which accounted for the disturbance of circulation in the liver and kidneys, and the absence of peristaltic movement of the intestines, all of which had given rise to prominent symptoms during life. On inquiring into the patient's history afterwards, it seemed probable that the patient had had some curvature of the spine for a long time before the accident.

MR. ROGER WILLIAMS thought the case a very interesting one, more especially as it clearly showed that in these cases the paralysis was due to compression of the cord.

DR. HORROCKS, after pointing out the objections to the expression "ankle-clonus exaggerated," made some remarks on the appearances found on examination of the spinal cord, calling especial attention to the absence of any affection of the lateral columns of the cord. This was, he said, the first recorded case in which ankle-clonus had been present without lateral sclerosis—*i.e.*, in cases where the cord had been examined. He was aware, of course, that ankle-clonus might be present as a transient symptom, as, for instance, after an epileptic seizure, as had been pointed out by Dr. Hughlings-Jackson, but it had never been shown hitherto that there could be an abiding ankle-clonus without sclerosis of the lateral columns of the cord.

MR. BUTLIN asked if the tumour had been examined microscopically, as he could not help thinking that the naked-eye appearances suggested that there had been here one of those sarcomatous tumours that are found about bones, and that a hæmorrhage had taken place into it. He thought that the history of the case would fit in very well with this hypothesis.

At the suggestion of the PRESIDENT the specimen was referred to the Morbid Growths Committee.

A CASE OF DISSEMINATED SARCOMA.

DR. HADDEN exhibited the heart and kidney from a case of widely disseminated sarcoma. The patient, a gentleman aged thirty-eight, had been admitted into St. Thomas's Home ten days after an operation for fistula in ano. Previous to his admission he had complained of occasional pain in the præcordial region; after he came under observation he was dull, drowsy, and at times there was low muttering delirium. Œdema of the legs soon came on; his pulse was very rapid, but the temperature was never much raised. Repeated careful examination of thorax and abdomen failed to reveal any physical signs of disease of the viscera contained therein. He died ten days after admission. On post-mortem examination both layers of the pericardium were studded with minute whitish opaque growths from one to three lines in breadth; similar growths were seen in the muscular substance of the heart-wall and on the endocardium, but there were none on the valves. The parietal layer of both pleuræ contained similar nodules, but the visceral layer and both lungs were quite free from them. The diaphragm, omentum, mesentery, peritoneum, liver, and spleen, all showed similar nodules in great abundance. The kidneys contained similar nodules, those in the substance of the left kidney having a striking resemblance to miliary tubercles. The capsule of the right kidney was studded with somewhat larger nodules, which contained gritty calcareous matter. Microscopically the growth was found to be a small, round-celled sarcoma; in some instances in the heart the cells were fusiform, and some had more than one nucleus. The arachnoid showed some local opacities, which at first were supposed to be either tubercles or sarcoma, but the microscope had shown that they were merely local thickenings. There was no meningitis. He thought it probable that the right kidney was the original seat of the disease, and that the change had been going on there for months. The fistula was practically healed. The chief points of interest in the case were, he thought, the existence of the fistula, which naturally suggested the idea of tubercle—an idea which the first appearance of the nodules lent some support to,—and the rapid onset of the symptoms.

DR. NORMAN MOORE asked if it was possible that, after all, the appearances seen on the capsule of the right kidney might not be analogous to those thickenings sometimes seen on the surface of the liver as the result of pressure. He also called attention to the entire absence of pigmentation in the growths in the heart. In all the specimens of sarcoma of the heart in St. Bartholomew's Hospital, pigmentation was a marked feature.

MR. BUTLIN had had the opportunity of examining microscopical sections of these tumours last summer, and had then formed the opinion that the characters they presented were those of sarcoma rather than tubercle, but he did not think the characters were sufficiently distinctive to enable him to positively exclude the latter if the history pointed very strongly in that direction.

Dr. Bedford Fenwick asked for further information about the pain in the præcordial region which had been mentioned as one of the early features of the case. In the cases of sarcoma of the heart that had come under his own observation he had noticed that pain was a constant symptom, and was of a paroxysmal character.

Dr. Hadden, in reply, thought that there was no doubt about the nature of the growths in the capsule of the right kidney. He still adhered to the opinion that the growths were not tubercles. He could give no further particulars of the clinical history of the patient than those he had already mentioned.

At the suggestion of the President, the specimens were referred to the Morbid Growths Committee.

Case of Xanthoma Tuberosum.

Mr. Malcolm Morris showed a patient suffering from this disease. The patient was a mason, aged forty-six. He was married, but had never had any children. He had never been an excessive drinker. He had become very stout during the last few years, so that his present weight was eighteen stone. His family history was good, excepting that one brother had died, probably, of apoplexy. He had been subject to headache and giddiness for a long time. The eruption for which he came under observation commenced suddenly two years ago, on the outer side of the thighs and on the extensor surface of the arms. It consisted of pale fawn-coloured, slightly raised tubercles, mostly on the extensor surfaces of his limbs, also on his back and buttocks; a few were seen on the mucous membrane of his mouth. He passed a large quantity of urine which contained a notable quantity of sugar; there was some anæsthesia of his feet. With the permission of the patient he removed one of these growths, and examined it microscopically, when he found that there were small nodules in the corium, the central parts of which stained less deeply than the margins; the papillary layer and the epidermis were unaffected; there were no blood-vessels in the growth, and the hair-follicles, sweat-glands, and their ducts were quite independent of them. When the tumour was squeezed no oil-globules exuded. The wound caused in removing the growth had healed without any difficulty, and since the patient had been under treatment he had so far improved that now these papules were only found on the front of both knees, and a very few on his back; the anæsthesia of the feet had completely passed off, but the urine was still saccharine. He had called this case one of xanthoma tuberosum to distinguish it from the more common variety known as xanthoma or xanthelasma planum, which he should refer to in the rest of his remarks as true xanthelasma. He then referred to a paper by Mr. Jonathan Hutchinson on xanthelasma, read before the Royal Medico-Chirurgical Society; and he read a brief abstract of a case published many years ago by Drs. Addison and Gull, and another by Dr. Bristowe, which resembled his own in so many particulars that he had no doubt the disease was one and the same, and distinct from true xanthelasma. The points in which this disorder differed from true xanthelasma were—(1) the presence of diabetes; (2) the character and distribution of the eruption, and especially its absence from the eyelids; (3) the gradual disappearance; and (lastly) the sex of the patient, true xanthelasma being much more common in women.

Mr. Morrant Baker said that after examining the patient the name "xanthelasma" had not occurred to his mind, and he thought it a great pity that a name should be given to this disease which had already been attached to a totally distinct one. He suggested that a committee should be appointed to report upon the case.

Dr. Dyce Duckworth quite concurred in what Mr. Baker had just said, and, in his opinion, the conspicuous features of xanthelasma were absent. He, too, thought it a suitable case for the opinion of a committee.

Dr. Radcliffe Crocker also deprecated the use of the name xanthelasma for this disease: there was no shade of yellow (it was true he had not seen the patient by daylight); the nodules were firm, and their rapid growth and disappearance were all opposed to what has hitherto been called xanthelasma.

Mr. Malcolm Morris, in reply, said that in the early stages the tubercles were distinctly fawn-coloured in appearance. He admitted the absence of oil-globules as telling decidedly against this being a case of xanthelasma. If he had to name the disease from the microscopical characters only, he would have called it fibroma rather than xanthelasma. It was his anxiety not to add a new name to our already overburdened nomenclature that had induced him to call the case xanthoma tuberosum.

Dr. Morrison thought the hair-follicle was in such cases usually the primary seat of the disease, and suggested an analogy between this disease and acne in gout.

At the suggestion of the President, a committee, consisting of Mr. Jonathan Hutchinson, Dr. Crocker, and Mr. Sangster, was nominated to report upon the patient.

Pigmentation of the Cervix Uteri.

Dr. Barnes read notes of this case. The patient was a Hindoo woman who had long suffered from procidentia, in consequence of which the os and a portion of the cervix had for a long time remained outside the vulva and exposed, and it was just this part which had become pigmented, becoming as dark as the skin of the woman's body. A careful microscopical examination had shown the pigmentation to be strictly limited to this area, elsewhere the appearances being those of normal mucous membrane. A case such as this was, of course, very rare in his own practice, but he thought that perhaps those who had practised in India would be quite familiar with such a state of affairs.

Dr. Wilks referred to Addison's disease, and to the pigmentation that often supervened where any irritation or compression had long been kept up. In dark people the genital organs were habitually very dark.

Lung with Impacted Foreign Body.

Dr. Norman Moore showed the right lung of a girl aged twelve years, who died of typhoid fever. The lung was partially collapsed, and in its lowest lobe were several reddish patches. In one of these, near the pleural surface, was fixed a spicule of bone, one-third of an inch long. The spicule, which looked like the neural spine of a fish vertebra, had one end in a minute bronchus, the wall of which it had penetrated. Four years ago the child was suddenly seized with pleurisy. She was tapped in St. Bartholomew's Hospital, pus was let out, and, as the wound continued to discharge, a drainage-tube was put in. The child attended with this as an out-patient, and at length the wound was closed. The scar was distinct, and beneath it the lung was firmly adherent to the chest-wall. The spicule of bone, passing deep into the lung, probably set up a pneumonia, which was followed by the empyema four years ago. The empyema was concluded, but the bone remained fixed in the lung—a very exceptional circumstance. The typhoid fever of which the girl died was remarkable in the large extent of intestine affected, and in the fact that the middle part of the vermiform appendix was externally tumid, and internally ulcerated all round. Perforation of the vermiform appendix had occasionally been a cause of death in typhoid fever, and had been ascribed to a condition preceding the fever. In this case, and in another post-mortem which he had lately made, the ulceration of the vermiform appendix was clearly one of the results of the typhoid fever. A further point of interest was that in the middle of the epiglottis there was a small ulcer.

Dr. Goodhart thought that foreign bodies got into the lungs and set up disease much more commonly than was generally believed. Two cases of this kind had recently come under his observation in the post-mortem room, in neither of which had there been any suspicion of the presence of a foreign body.

Dr. Maclagan made some remarks on the peculiarly fœtid expectoration which is liable to occur in cases where a foreign body has found its way into the lung. He had known the internal administration of turpentine to give relief in such cases.

Dr. Sharkey did not think that the foreign body need necessarily have actually injured the pleura in order to set up the pleurisy, and instanced those cases of pleurisy set up by the pressure of an aneurism upon a bronchus. He had at the present time under observation in St. Thomas's Hospital a man who had had one of his teeth fall into his trachea immediately after it was extracted. He came with signs of obstruction to the left bronchus, but a few days later well-marked signs of pleurisy without much effusion made their appearance. There was no reason whatever for supposing that the tooth had made its way into the pleura.

Malformation of the Mouth of a Lamb.

Mr. Eve showed this preparation, and a drawing of the fresh specimen. All the structures developed from the first visceral arch on the right side were absent, so that there was no superior or inferior maxilla on this side, and no auditory meatus or Eustachian tube. He regretted that he had been unable to examine the arteries; he thought it possible that they might have been plugged by thrombosis or embolism, or there might have been some congenital defect of the carotid artery on this side. He rather inclined to this latter view. He believed the case to be absolutely unique.

Card Specimens.

Dr. Norman Moore.—Double Hydro-salpinx.
Mr. F. Treves.—Congenital Malformation of the Skull.

MEDICAL NEWS.

University of Edinburgh.—The following gentlemen have passed the First Professional Examination, October, 1882:—

William Anderson, William A. Anderson, Edmund Antrobus, John Bardgett, T. W. Barraclough, Georges Baschet, William J. Bell, Charles Bennett, Reginald Bowman, Joao Francisco Braga, J. D. Broadfoot, Harbit Brown, R. F. Burt, Ernest Kenneth Campbell, David Cassels, Ernest James Cheetham, Stephen Frazer Clark, Frank Gerard Clemow, Frederick William Collinson, Robert Swan Coulthard, James Cunningham, George Scott Davidson, Joseph William Dawes, John Henry Deamer, Kenneth Mackinnon Douglas, David Somerville Doughty, J. J. Drinkwater, Walter Musgrave Eaton, Ahmed Fahmy, Peter Fraser, Edwin Sargood Fry (with distinction), John Garvie, William Gregory Gibson (with distinction), James Gray Glover, Robert Gordon, J. W. Grant, Alexander M. Gray, Allen Edward Lambton Gray, David Campbell Gray, David Middleton Greig, Thomas Howard Griffith, Joseph Griffiths, George Lovell Gulland, Charles Robert Hailes, Joshua Jacobus Hoffman, Robert Wilberforce Inkster, Samuel Baker Jones, Robert Conwy Joyce, H. L. St P. Keelan, Frederick Truby King (with distinction), Ernest Cory Kingdon, John Charles Lamont (with distinction), John Dickinson Leigh, Charles Lewis Lempriere, Charles James Lewis, Edward Linton, William G. Little, James Richardson Thomas Logan, A. L. B. Loubser, Wilton Wood Russell Love, Donald Campbell Archibald M'Allum, Duncan M'Diarmid, J. R. M'Gavin, George Donald Macintosh, John M'Jerrow, Francis Wallace Mackenzie, William Henry M'Lean, Robert MacLelland, John M'Donald MacLennan, Robert Charlie MacWatt, Daniel Groves Marshall, Charles G. Matthew, David Macleish Moir, David Morgan, Thomas Morris, Robert S. Morrison, Charles James Morton, John Kemp Murray, Andrew W. Nash, William Ramsay Nasmyth, F. A. Neal, John M'Donald Nicoll, Maurice Paterson, John Pirie, George Porter, Edward Thomas Pritchard, Trevor John Pritchard, Selwyn Hall Puckle, James Reid, Francis Mortimer Reynolds, J. B. Ridley, John Richards, Ernest Roberton, Ernest Theophilus Roberts, Frederick Charles Roberts, Hugh L. Roberts, Arthur MacLeod Ross, John Ross, D. Wilson Scotland, Gerard Affleck Scott, W. E. S. Scott, Harold Scurfield, Robert William Smeddle, George Purves Smith, John William Smith, George Laird Somerville, Gabriel H. Steyn, Robert Stewart, Robert Stirling, William George Sym, Charles C. Teacher, Caleb Terry, John Bolton Thackwell, William James Thomas, Francis Courtenay Thorp, John William Travell, Ernest B. Turner, J. C. S. Vaughan, Quintin Macadam Wallace, John Warnock, Clarence Henry Waters, Adam D. Wilson.

Royal University of Ireland.—At the autumnal examinations in the Faculty of Medicine, the following were the successful candidates:—

M.D. Degree Examination.—First Class Honours: Charles H. Wise. Second Class Honours: J. M'Murray, F. E. Adams. Upper Pass Division: C. W. Allport, J. J. Austin, W. S. Barnes, T. G. Bell, Thomas Cromie, Charles Heanen, Mark Jackson, Michael Kelly, J. A. Lindsay, W. O'Keeffe, J. M. Prendergast, S. A. L. Swan, Daniel White. Lower Pass Division: H. E. Brown, A. B. Chambers, James Cooke, William Gibson, William Good, J. S. Graham, William Graham, William R. Hamilton, A. W. Hawthorne, S. D. Henderson, James Henry, J. F. Hunter, R. J. Legge, J. M'Cambridge, Cornelius M'Dermott, L. S. M'Manus, R. H. Mathews, John P. Moran, R. M. Moynan, J. Morrison Orr, R. Strafford Smith, James Wilson.

M.E. Degree Examination.—Upper Pass Division: John Riordan.

M.Ch. Degree Examination.—M. H. Atock, J. J. Austin, W. S. Barnes, T. G. Bell, J. G. Black, A. B. Chambers, James Craig, Thomas Cromie, P. J. Gallwey, W. Walter Gibson, H. A. Haines, Samuel Hamill, William R. Hamilton, A. W. Hawthorne, Charles Heanen, S. D. Henderson, James Henry, J. Alexander Lindsay, J. M'G. Lithgow, J. M'Cambridge, T. S. M'Connell, C. M'Dermott, J. R. M'Donnell, L. S. M'Manus, J. M'Murray, R. H. Mathews, John P. Moran, L. D. Morell, R. M. Moynan, D. V. O'Connell, William O'Keeffe, J. M. Prendergast, John Riordan, G. A. Rountree, Daniel White, James Wilson, J. V. Young.

Examination for Diploma in Obstetrics.—F. E. Adams, C. W. Allport, A. B. Chambers, Thomas Cromie, William Gibson, H. A. Haines, R. W. S. Lyons, J. M'Murray, C. J. O'L. Maguire, R. H. Mathews, Wm. O'Keeffe, J. Moran Prendergast, G. A. Rountree.

Second Examination in Medicine.—Exhibitions: Candidates who are entitled on their answering to be awarded exhibitions if otherwise qualified. The names are arranged in order of merit. First Class (£40 each)—James Chambers (disqualified), Benjamin Hosford. Second Class (£20)—Thomas Grainger, John Kearney), R. B. Gorsuch.

The First Examination in Medicine.—Exhibitions: Second Class (£15)—T. R. Leonard.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their First Professional Examination during the October sittings of the examiners:—

Albert William Beaumont, Cambridge; Samuel Aspinall, Blackburn; Thomas James Randolph Clarkson, Yorkshire; Herbert George Harold Clarkson, Yorkshire; Challoner Clay, Wiltshire; Thomas Alexander Papillon, Berkshire; Alfred Thomas Masters, Dorsetshire; William Griffith Evans, Cardiganshire; Edward Isdale Shiels, St. Louis, U.S.A.; David Anderson, Dollar; Arthur Charles Turner, Derbyshire; Joseph Macnab, co. Cork; Thomas Kean, Galway; Henry Edward George Johnson, Liverpool; Herbert Heyworth, Nelson, Lancashire; Thomas Patterson, co. Donegal; David Mathewson Nairn, Dundee; James Beattie, co. Antrim; Smollett Samuel Clerk, Madras; James Donigan, Cork; Richard James Sadleir Wheeler, Clonakilty, Cork; Milton Romanis Callender, South Shields; Thomas Berkeley Martin, Sunderland; Duncan Clark, Argyllshire.

The following gentlemen passed their Final Examination, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin. during October and November:—

Thomas Ross, Sutherlandshire; John Steell, Poonah; James Munday, Poonah; John Cundell Wood, Sunderland; William Cody, Longford; Millice Culpio, Buntingford; Arthur Keess, Madras; William Waddell, Ballymena; John Foggin, Newcastle-on-Tyne; William Francis Fryer, co. Carlow; Robert Griffith Roberts, Liverpool; Jeremiah O'Callaghan, Cork; Denis Scully, Tipperary; John Joseph Tisdall, Mullingar; Edmund Lewis Rowe, York; David Huey, Ballynaries; Henry Green, Manchester; Henry Horbury, Preston, Manchester; William Holdsworth, Whitby; William Davidson, Motherwell; Samuel Frazer, co. Down; William Stephen Johns, Wells, Norfolk; Daniel Rees Davies, London; Harry Cornelius Edwin Rogers, Plymouth; John Powell, South Wales; Robert Aloysius Hamilton Williams, Dungarvan; Richard Wagner, Poonah; Edwin Douglas, Edinburgh; George Cooper Harrison, Nottingham; James Ross Irwin, co. Derry; Samuel Mackey, Letterbratt; William Bedford Silverwood, Shetty, Huddersfield; John Beamish Hamilton, Drogheda; William Morrison Storrar, Aberdeenshire; Alexander Oswald Cowan Watson, Bombay; John Barfield Adams, Carmarthen; Charles Theodore Uvo Babst, Newcastle; William Carden Cousins, Ottawa; Michael Joseph Molony, co. Tipperary; Edward Patrick Walsh, Coolnagour; Alexander Brown Murdoch, Elgin; Charles Joseph Blake, co. Galway; John Lusk Torrens, co. Derry; Daniel Patrick Coady, co. Kildare; Walter Frederick de Watteville, Berne, Switzerland; John Richard White, London; John Gorham, Clifden, co. Galway.

Royal College of Physicians, Edinburgh, and Faculty of Physicians and Surgeons, Glasgow.—At the October meeting of the Examiners, the following gentlemen passed the Primary Examination for the double qualification:—

Dunlop, L. M., M.A., Glasgow.	Mackie, John, Aberdeen.

Two candidates were remitted. The following gentlemen passed the Final Examination, and were admitted Licentiates of both Colleges:—

Adams, F. V., Glasgow.	Dean, Sheridan, Glasgow.

Four candidates were remitted.

Faculty of Physicians and Surgeons, Glasgow.—At the October meeting of the Examiners, the following gentlemen passed the First Professional Examination of the Faculty:—

Banks, L. P., London Hospital.	Jones, G. G., University College.
Boothman, A. C., Glasgow School.	Mason, J., Glasgow School.
Hunter, G. W., Glasgow School.	Somerville, Wm., Glasgow School.
Jamison, D., Belfast.	Sutton, A. A., Glasgow School.

Ten candidates were remitted. The following gentlemen passed the Final Examination, and were admitted Licentiates:

Blayney, J. H., Manchester.	Kauffmann, E. J., Michigan, U.S.
Dickson, A., Glasgow	McAusland, A., Glasgow.
Dunlop, Wm., Glasgow.	Macphail, A. L., Glasgow.
Emmson, L., Messingham.	Mathie, John, Glasgow.
Gibb, Wm., Glasgow.	Naismith, A. D., M.D., Toronto.
Hunter, G., Glasgow.	Parakh, N. N., Bombay.
Wilson, James, Glasgow.	

Twelve candidates were remitted.

Royal College of Surgeons, Edinburgh.—During the October sittings of the examiners, Mr. Joseph Henry Zepero, Trinidad, passed his First Professional Examination, and the following gentlemen passed their Final Examination, and were admitted Licentiates of the College:—

Alfred Edwin Schmidt, London; Frederick William Kirkham, Tilney, Norfolk; Howard Bennett Fletcher, Lincoln; John Mair Robertson, Galston; William Wilson, Edinburgh; John Logan, Milngavie; John Salter Gettings, Staffordshire; Walter Stannes Snell, Stonehouse, Devon; Creighton Hutchinson, Kilrea; John Robert Clark, Cobourg.

William Thomas Elliott, Diss, passed his First Professional Examination for the Licence in Dental Surgery of the College, and the following gentlemen passed their Final Examination, and were admitted L.D.S.:—

Joseph Smithson Thomson, Dublin; Henry Blandy, Chesterfield; Hume Purdie, Alford.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 6th inst., and when eligible will be admitted to the Pass Examination, viz. :—

Alexander, Thomas G., student of the University of Glasgow.
Armitage, Edward, of the Leeds School
Ballachey, Henry N., of the University of Glasgow.
Brown, Charles H. Gage, of the University of Edinburgh.
Crowther, John W., of the Birmingham School.
Dearden, George E., of the University College Hospital.
Ferguson, James E. A., of the University of Edinburgh.
Gifford, Lawson, of the University of Edinburgh.
Graham, William, of the Dublin School.
Hallilay, Richard P., of the Leeds School.
Hunter, Robert R., of the University of Glasgow.
Packman, Alfred C. A., of the Sheffield School.
Roome, Stanley M., of the University of Edinburgh.
Sharman, Mark, of the University of Glasgow.
Sykes, John, of the University of Edinburgh.
Ward, John O., of the Leeds School.
Watts, Alfred T. G., of the Cambridge School.
Woods, Frank, of St. Bartholomew's Hospital.
Worsley, Henry, of the University of Edinburgh.

Four candidates were referred for three months, and one for six months. The following gentlemen passed on the 7th inst. :—

Angior, Thomas M., student of the Liverpool School.
Brentnall, Frederick, of the Manchester School.
Burton, Leonard W., of St. Thomas's Hospital.
Butler, Henry J., of the Leeds School.
Castle, Richard F., of the Cambridge School.
Davis, Thomas J., of the Liverpool School.
Downing, Charles, of St. Bartholomew's Hospital.
Forrest, James R., of St. Bartholomew's Hospital.
Giddings, Robert R., of the Edinburgh School.
Johnston, Benjamin R., of the Dublin School.
Julian, Oliver R. A., of St. Bartholomew's Hospital.
Mukerji, Upendra Nath, of the Edinburgh School.
Reid, George M., of the Edinburgh School.
Sykes, Thomas H., of the Liverpool School.
Wordsworth, William J., of St. Bartholomew's Hospital.

Nine candidates were referred for three months. The following gentlemen passed on the 8th inst. :—

Barrett, Robert H., student of St. Bartholomew's Hospital.
Bennett, James R. Abrahall, of University College.
Brooke, Charles E., of the University of Cambridge and St. Bartholomew's Hospital.
Denman, Robert, of Guy's Hospital.
Dun, Walter A., of Cincinnati.
Grant, James E. Roney, of St. Mary's Hospital.
Howitt, J. Fitzwilliams, of the Toronto School and Middlesex Hospital.
Langhorne, Thomas G., of the London Hospital.
Leggatt, Gerald S., of St. Bartholomew's Hospital.
Leicester, Thomas, of the Liverpool School and St. Thomas's Hospital.
Michell, John C., of the London Hospital.
Pridham, William F., of St. Mary's Hospital.
Trng, Arthur, of the Cambridge School and Charing-cross Hospital.
Silverlock, Richard G., of Guy's Hospital.
Smith, Stephen F., of the London Hospital
Stoman, Frederick, of St. Bartholomew's Hospital.
Strickland, Charles, of St. Bartholomew's Hospital.
Woods, Alfred E., of St George's Hospital.

Six candidates were referred to their anatomical and physiological studies for three months.

Collegiate Examinations.—The first examination of the present session for the diploma of Membership of the Royal College of Surgeons of England was commenced on the 3rd inst., when ninety candidates presented themselves for the Primary or Anatomical and Physiological Examination, to whom the following questions were submitted (to be answered from 1 to 3 p.m.), viz :—In Anatomy : 1. The skull-cap and the subjacent dura mater having been removed, describe the manner in which you would proceed to take out the brain from the cranial cavity. 2. Describe the course and relations of the inferior vena cava, and enumerate the veins which it directly receives, in their order from below upwards. 3. Describe the ligaments which connect the os calcis with other bones. 4. Describe the external anatomy and relations of the kidney. What appearance does it present on section to the naked eye? 5. Give the dissection necessary to expose the superior profunda artery and its anastomoses. 6. Name the nerves of the larynx, and describe their origin, course, and distribution. The following were the questions on Physiology (to be answered between 4 and 6 p.m.), viz. :—1. Describe the structure and mode of growth of a long bone. 2. Describe the movement of the blood in the capillaries as seen with the microscope; and explain the chief phenomena which can thus be observed. 3. Explain the manner in which ordinary inspiration and expiration are accomplished. 4. Give the functions of the anterior and posterior roots of the spinal nerves, and the evidence on which your statements rest. 5. Explain the terms "syncope," "apnœa," "dyspnœa," "asphyxia." How is death produced by asphyxia? 6. What is the composition of milk? Describe the digestion and absorption of its organic constituents. The candidates were required to answer four, and not more, of the six questions in each paper.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 2 :—

Smith, Ebenezer Thomas Ayden, Abbey-street, Bermondsey.
Spencer, Walter, Doughty-street, W.C.
Statham, Reginald Whiteside, St. Peter's Rectory, Walworth.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Banfield, Harold William, London Hospital.
Buksh, Raheem, London Hospital.
Jollye, Arthur Dixon, Charing-cross Hospital.
Slader, George William Burgess, Guy's Hospital.

BIRTHS.

BUNTING.—On November 5, at 7, Powerscroft road, Clapton, the wife of Robert O. Bunting, L.F.P.S., of a daughter.

DALTON.—On November 2, at South Norwood, the wife of B. N. Dalton, M.D., of a son.

DUKE.—On November 2, at Berners-street, Ipswich, the wife of Surgeon-Major Duke, of a son.

MACKENZIE.—On November 1, at 26, Finsbury-square, the wife of Stephen Mackenzie, M.D., F.R.C.P., of a daughter.

MARTIN.—On October 21, at 6, Rosenaith-villas, Military-road, Cork, the wife of Surgeon J. Martin, Army Medical Department, of a son.

MIVART.—On November 5, at 6, Devonport-street, Hyde-park, the wife of Frederick St. George Mivart, M.R.C.S., of a son.

MOORE.—On November 3, at Redcroft, Maidenhead, the wife of G. E. Moore, M.B., M.R.C.S., of a son.

POIGNAND.—On November 2, at 234, Upper-street, N., the wife of Malcolm Poignand, M.D., of a son.

SETON.—On October 23, at 12, Thurloe-place, S.W., the wife of D. E. Seton, M.D., of a son.

SMITH.—On November 1, at Belmont House, Newport, Essex, the wife of William Alexander Smith, M.A., M.B., of a daughter.

TICEHURST.—On October 27, at Silchester House, St. Leonard's-on-Sea, the wife of A. R. Ticehurst, M.R.C.S., of a daughter.

TURNER.—On November 1, at 42, Camden-road, N., the wife of T. Bryett Turner, M.R.C.S., of a daughter.

WALLACE.—On November 3, at Cleckheaton, Yorkshire, the wife of Edward J. Wallace, M.D., of a son.

WHEELER.—On November 4, at Pembridge-gardens, W., the wife of John Wheeler, M.D. and C.M., of a daughter.

WHITTINGTON-LOWE.—On November 2, at 28, Eaton-place, Brighton, the wife of R. Whittington-Lowe, M.D., Staff-Surgeon, of a son.

MARRIAGES.

BRUCE—ROGGER.—On November 7, at Edinburgh, Robert Cathcart Bruce, M.B., of Goole, Yorkshire, to Zelda, daughter of the Rev. Alexander Rodger, M.A., of Inch Church, Edinburgh.

MCNEILL-PITT.—On November 2, at Cullompton, Devon, John P. McNeill, B.A., M.D., T.C.D., of Knockmore, near Ballymoney, co. Antrim, and Tiverton, Devon, to Louisa, youngest daughter of the late William Pitt, Esq., of Southwell Lodge, Trull, near Taunton, and Woodcock's Well, near Cullompton.

MUNGIE—RICHARDSON.—On November 6, at Edinburgh, Robert Mungle, Staff-Surgeon Royal Navy, to Jane Watson, daughter of the late John Richardson, Paymaster Royal Navy, of Bellhaven, Dunbar, N.B.

POUNDS—LEWIS.—On October 30, at South Hampstead, T. Henderson Pounds, M.R.C.S., L.S.A., to Katherine, eldest daughter of James Lewis, Esq., R.N., of 147, Adelaide road, N.W.

TOOTH—PRICE.—On October 31, at Weston-super-Mare, Howard Henry Tooth, M.B., of 34, Harley-street, W., to Mary Beatrice, youngest daughter of the late Edward Price, Esq., of Highgate.

WEBB—HUNTING.—On November 2, at Newcastle-upon-Tyne, Henry Pelham Webb, M.B., of Wymering-terrace, Lavender-hill, S.W., to Fannie, daughter of Charles Hunting, Esq., of South Hetton, co. Durham.

WYLIE-CLARKE.—On November 7, at Skipton, William Wylie, M.D., L.R.C.P., of Skipton, to Edith Jane, youngest daughter of the Rev. W. H. Clarke, M.A., vicar of Christ Church, Skipton.

YOUNG—DAVY.—On October 24, at Crouch End, N., James Vance Young, M.D., to Mary Louisa, second daughter of the late Henry Davy, Esq., of Hornsey-lane, London, etc.

DEATHS.

ALLEYNE, HAYNES GIBBES, M.D., President of the Medical Board, at Sydney, N.S.W., on September 9, aged 69.

CRITCHETT, GEORGE, F.R.C.S., at 21, Barley-street, W., on November 1, aged 65.

HOOD, EDITH, wife of Peter Hood, M.D., of 23, Lower Seymour-street, Portman-square, W., at Upton House, Watford, on November 3.

ODLING, HAROLD, son of T. F. Odling, M.R.C.S., of Shiraz, Persia, on November 1, aged 2 years.

SEMPLE, ARTHUR CHARTERS, youngest son of Robert Hunter Semple, F.R.C.P., at 8, Torrington-square, W.C., on November 2.

SOULBY, HENRY, M.D., at Waverley House, Hull, on November 4.

WALTERS, VICTORIA BLANCHE PENWARNE, wife of James Hopkins Walters, M.R.C.S., at 43, Castle-street, Reading, on November 2, aged 28.

WILSON, ELIZA, wife of George Clark Wilson, M.R.C.S., at Plymouth, on October 18.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

AYRSHIRE DISTRICT ASYLUM, NEAR AYR, N.B.—Assistant Medical Superintendent. Salary, to commence, £80 per annum, with board and lodging. Dr. C. H. Skae, Medical Superintendent, will furnish any information required, and applications are to be sent to Mr. C. G. Shaw, Clerk to the Board, County Buildings, Ayr, by November 22.

BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent. Salary £120 per annum, with board and washing. Candidates must be legally qualified medical practitioners, over twenty-five years of age, and must furnish testimonials as to moral character and professional ability. No private practice allowed. Applications, stating age, to be made to the Secretary, Mr. C. V. Woodcock, Albany-buildings, Bradford, on or before November 21.

CANE HILL ASYLUM, SURREY.—Medical Superintendent. (*For particulars see Advertisement.*)

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant-Surgeon. Salary £130 per annum (outdoor), with additional fees for midwifery. Applicants must be duly qualified and registered. Applications, with testimonials, to be sent to the Secretary, Mr. J. Bullivant, 58, Abbey-street, not later than November 15, from whom may be obtained all further information.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. (*For particulars see Advertisement.*)

UNION AND PAROCHIAL MEDICAL SERVICE.

'*.*' The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Bury Union.—Dr. W. B. Taylor has resigned the Workhouse: salary £130 per annum.

Cannock Union.—The office of Medical Officer for the Brownhills District is vacant: area 800; population 1614; salary £10 per annum.

West Bromwich Union.—Mr. Alfred Paget Evans has resigned the Workhouse: salary £35 per annum.

APPOINTMENTS.

Ashton-under-Lyne Union.—Andrew Gellatly, B.M., M.C. Edin., to the First District.

Crediton Union.—Charles H. Haycroft, M.R.C.S. Eng., L.S.A., to the Bow and Colebrooke Districts.

Launceston Union.—William Andrew, M.B., C.M. Edin., to the Fourth District.

West Bromwich Union.—James J. Hues, M.R.C.S. Eng., L.R.C.P. Edin., to the Handsworth District.

Winchcomb Union.—Charles Penruddocke, M.R.C.S. Eng., L.R.C.P. Edin., to the Vale District.

A NEW MEDICAL MAGISTRATE.—We are informed that the Lord Chancellor has, on the recommendation of the Lord Lieutenant, appointed Dr. Alfred Meadows, of Poyle Manor, Colnebrook, and George-street, Hanover-square, a magistrate for Middlesex.

THE HOSPITAL FOR SICK CHILDREN, GLASGOW.—We learn that this building is now nearly ready for the reception of patients. There are three main wards—one to contain seventeen beds, and the others nineteen beds apiece. The floors are of oak, stained and varnished. There are two fireplaces in each ward, standing in the centre—a plan, we believe, adopted from Addenbrooke's Hospital. The lower half of the windows is filled in with stained glass, by means of which the following nursery rhymes have been illustrated, viz.—"The Babes in the Wood," "The House that Jack Built," and "Sing a Song of Sixpence"; the drawings are after Caldecott. No expense has been spared, apparently, in the construction and fitting-up of the building. We hope that the money will be supplied with equal readiness to maintain the charity in full working order. There will probably be some opening ceremony about Christmas.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, November 6 (the Hon. Sir W. R. Grove, D.C.L., LL.D., F.R.S., Manager and Vice-President, in the chair), Captain W. de W. Abney, R.E., F.R.S., and George Wightwick Rendel, Esq., M.Inst.C.E., were elected members of the Royal Institution. The special thanks of the members were given to His Grace the Duke of Northumberland, for his valuable present of "Descriptive Catalogue of the Antiquities at Alnwick Castle, 1880," and "Catalogue of Egyptian Antiquities at Alnwick Castle, 1880." Two candidates for membership were proposed for election. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

APPOINTMENTS FOR THE WEEK.

November 11. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

13. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Richardson, "On Ammoniated Chloroform as a Preservative of Animal Tissues." Mr. J. Knowsley Thornton will report "Three Cases of Successful Nephrectomy; with Remarks on Operation."

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Vary Lyle (of Durban), "On the Endemic Hæmaturia of the South-East Coast of Africa" (illustrated by specimens of the Bilharzia hæmatobia exhibited by Dr. Cobbold and Dr. Radcliffe Crocker). Mr. A. P. Thomas (M.A. of Oxford) will exhibit Drawings and Microscopic Preparations, and make some remarks on his Discovery of the "Life-History of the Liver Fluke, and its Introduction into the Bodies of Sheep." Dr. Cobbold will also exhibit specimens of the various forms of Fluke from Man, the Elephant, and the Giraffe. Dr. Bastian will exhibit Flat and Nematoid Worms; illustrated with models and drawings by Professor Ray Lankester. Dr. Stephen Mackenzie will show the Filaria Sanguinis Hominis from Human Blood, and also from the Stomach of the Mosquito.

15. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. Isambard Owen.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

HARVEIAN SOCIETY, 8½ p.m. The Report of the Alcohol Committee. Dr. Francis, "On the Treatment of Neuralgia."

17. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

THE ACTUAL CAUTERY.—Dr. Post states (*Phil. Med. Reporter*, September 23) that he is in the habit of employing a form of actual cautery which, upon the whole, he much prefers to Paquelin's cautery. It consists of six short wires grouped together, with which, after heating it in a lamp close at hand, six small burns can be made simultaneously, instead of one after another. If heated only moderately, a number of small scars can be made, which for many purposes is preferable to the single eschar produced by a large cautery. The amount of irritation produced by this multiple cautery is very moderate, and the burning sensation resulting from its application is relieved as by a charm by a strong solution of bicarbonate of soda. After the first day an ointment made of a drachm of extract of stramonium to an ounce of vaseline greatly relieves the pain. Dr. Post finds this cautery very useful in almost all cases of chronic inflammation about joints, especially when it is attended with great induration of surrounding tissues, and also in various instances of deep-seated pains.

THE PARIS NIGHT SERVICE.—Dr. Passant reports that for the quarter ending September 30 there have been made 1565 night visits (being 122 less than those made during the corresponding quarter of 1881); and of these 36 per cent. were made to males, 51 per cent. to females (209 visits having been paid for labours and abortions), and thirteen to children under three years of age. The mean number of visits per night was 15·92, as compared with 18·33 of the quarter in 1881. In twenty-eight instances the patient was dead when the practitioner arrived.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 4, 1882.

BIRTHS.

Births of Boys, 1441; Girls, 1455; Total, 2896.
Corrected weekly average in the 10 years 1872-81, 2785·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	762	740	1502
Weekly average of the ten years 1872-81, corrected to increased population ...	842·2	780·2	1622·4
Deaths of people aged 80 and upwards ...	...	...	52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	2	11	1	3	...	3	1	3
North	905947	...	18	15	5	7	2	9	2	7
Central ...	299238	...	17	4	1	1	...	2	...	5
East	693738	...	4	19	1	7	...	8	2	2
South	1265927	...	13	16	5	7	...	9	...	9
Total	3816483	...	54	65	13	25	2	31	5	26

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·635 in.
Mean temperature	51·0°
Highest point of thermometer	58·6°
Lowest point of thermometer	34·9°
Mean dew-point temperature	45·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·59 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 4, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Nov. 4.	Deaths Registered during the week ending Nov. 4.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2896	1502	20·1	58·6	34·9	50·0	10·00	0·59	1·50
Brighton	109595	70	32	15·2	59·3	35·4	49·5	9·72	0·72	1·83
Portsmouth ...	129916	91	60	24·1	...	...	...	...	...	...
Norwich	88821	74	42	24·7	...	...	...	...	...	...
Plymouth	91449	61	25	17·5	57·0	37·3	49·1	9·50	0·79	2·01
Bristol	210134	134	78	19·4	57·0	35·1	48·1	8·95	1·71	4·34
Wolverhampton ...	76756	53	28	19·0	54·8	32·6	44·9	7·17	1·26	3·20
Birmingham ...	408532	277	141	18·0	...	...	...	...	...	...
Leicester	126275	106	43	17·8	56·5	35·0	47·0	8·33	0·98	2·51
Nottingham ...	193273	141	77	20·8	56·3	33·0	46·2	7·89	0·81	2·06
Derby	83587	64	42	26·2	...	...	...	...	...	...
Birkenhead ...	86554	64	29	17·5	...	...	...	...	...	...
Liverpool	560377	410	317	29·5	...	...	...	...	...	...
Bolton	106767	59	40	19·6	54·6	34·4	45·1	7·28	1·84	4·67
Manchester ...	340211	241	155	23·8	...	...	...	...	...	...
Salford	184004	146	84	23·8	...	...	...	...	...	...
Oldham	115572	83	58	26·2	...	...	...	...	...	...
Blackburn	108460	67	39	19·1	...	...	...	...	...	...
Preston	97856	60	62	33·1	...	...	...	...	...	...
Huddersfield ...	83418	59	27	16·9	...	...	...	...	...	...
Halifax	74713	35	32	22·3	...	...	...	...	...	...
Bradford	200158	141	85	22·2	55·1	40·4	47·3	8·50	1·63	4·14
Leeds	315998	197	131	21·6	56·0	39·0	48·0	8·89	0·83	2·11
Sheffield	290516	214	104	18·7	55·0	39·0	48·0	8·89	1·26	3·20
Hull	158814	128	75	24·6	55·0	36·0	46·9	8·28	0·85	2·16
Sunderland ...	119035	105	66	28·5	59·0	39·0	48·5	9·17	0·81	2·06
Newcastle	147626	113	49	17·3	...	...	...	...	...	...
Cardiff	88721	72	29	17·4	...	...	...	...	...	...
For 28 towns ...	8469571	6148	3451	21·3	59·3	32·6	47·6	8·67	1·08	2·74
Edinburgh	232410	127	101	22·7	52·6	37·0	45·0	7·22	1·27	3·23
Glasgow	514048	387	259	26·3	53·7	26·5	45·2	7·33	1·85	4·70
Dublin	348293	268	136	20·4	56·7	31·3	47·4	8·55	1·15	2·92

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·64 in. The highest reading was 29·88 in. on Tuesday at noon, and the lowest 29·33 in. on Wednesday afternoon.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

"THE BYE-PRODUCTS OF THE FERMENTATION OF STARCHY MATTERS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Medical Times and Gazette*, dated October 21, you say, "the taste of" aldehyde, when Dr. Brockhaus took it, "was so pungent as to be almost unbearable when fifteen drops only were dissolved in 150 grammes of water." Am I to understand that Dr. Brockhaus took the whole, or only part of the fifteen drops in one dose, and is it to be supposed that the highly charged brandy spoken of has as much as fifteen minims of aldehyde in every 150 grammes? Also can you tell me if Allan's Anti-fat is noxious to the constitution, and what the active principle is?

Bath. I am, &c., P. P. F.

[One morning, Dr. Brockhaus finding it impossible to swallow a solution of twenty-five drops of aldehyde in fifty grammes of water, dissolved fifteen drops in 150 grammes. Of this he took 100 grammes containing ten drops of aldehyde in a single dose. The symptoms—burning in tongue and throat, a taste of aldehyde not to be removed by drinking water, cough, nausea, sense of suffocation, burning pain in the stomach, eructations with odour of aldehyde, heat of head, and palpitation—passed away in about an hour. Eleven days later, in the evening, he dissolved ten drops in 200 grammes of wine, and drank the whole in successive portions through a period of twenty minutes. The taste, though unpleasant, was not so repulsive as that of the watery solution. The symptoms were the same, with extreme giddiness and lassitude (*Abgeschlagenheit*). After a good night's rest he awoke quite well. J. Pierre does not state the proportion of aldehyde in the brandy sold in the low shops of Ronen. —ED. *Med. Times and Gaz.*]

CHLORAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In this week's *Athenæum* (November 4), in a review of Mr. Caine's "Recollections of Mr. Rossetti," it is stated that the artist's "life might have been spared for a dozen, or even a score of years, but for his use of chloral hydrate. . . . He was in the habit of taking sixty-grain doses at intervals of four hours." It is not said during how long a period this habit was indulged in: but have any of your medical readers met with an instance of such large and such frequent doses of chloral being taken?

November 6. I am, &c., J. D.

A Provincial Teacher.—At the primary or anatomical and physiological examination for the membership of the Royal College of Surgeons last November there were ninety-one candidates, of which number sixty passed, twenty-eight were referred for three months, and three for six months. By watching our published lists this week you will ascertain the number of rejections; but we are unable, until the publication of the annual "pass and pluck," to give you the schools.

A Fellow of the Royal Society.—The gold medal has been awarded, but we must not publish the name of the recipient until it has been confirmed. The public will, no doubt, endorse the choice.

Salary Increments.—The Paddington Vestry have raised the salary of Dr. Stevenson, the Medical Officer of Health, from £300 to £400. The Committee's proposal to make the increased salary £450 was rejected by twenty-six to seventeen votes. The City Commissioners of Sewers have raised the salaries of three of the sanitary inspectors from £205 to £225 per annum each.

Birds of a Feather work together: Watering Milk.—A farmer near Chester sued a wholesale dairyman in Manchester for the value of milk supplied; and the defence was, that in consequence of the milk being sent to him adulterated, the dairyman had lost the custom of several retail sellers. four of whom had already been fined in the police-court. The defendant, however, tardily admitted that he "might have put a quantity of water into each tankard" on his own account; while as for the plaintiff, one of his cowmen confessed that before despatching the tankards to Manchester he put them under the pump; and a conversation was sworn to, in which he had jocosely remarked to a witness of this occupation, "The pump is the cow that gives most milk."

Sanitary Vigilance, Poplar.—The sanitary authorities of the Poplar and Bethnal Green districts are actively engaged in pursuing prosecutions against persons carrying on the trade of sausage-making, upon whose premises their officers find meat unfit for human consumption, and at the Worship-street Police-court they have obtained several convictions. The fine imposed in each case was £5 and costs.

Hospital Sunday: In Memoriam.—At length the project for the erection of a suitable memorial to the late Canon Miller, vicar of Greenwich, the originator of "Hospital Sunday" in London, has taken a definite form. It is proposed to erect to his memory a new wing in connexion with the Royal Kent Dispensary. Collections in aid of this object have been made in several churches in Greenwich, Lewisham, Lee, and Forest Hill, and in other places of worship in the district. Offertories to be appropriated to this purpose have been arranged.

Houses Unfit for Human Habitation, Bristol.—The Medical Officer of Health reports to the Sanitary Authorities that he had inspected the houses inundated by the recent floods, and that there were seventy-four which he considered unfit for human habitation. Legal proceedings have been directed to be taken against the owners.

Joseph Williams.—You will find a biographical notice of Samuel Cooper, F.R.S., author of the "Surgical Dictionary," in the *Medical Times*, vol. xix., 1849, page 185. In his "Roll of the Royal College of Physicians," Dr. Munk speaks most favourably of our biographical articles, as being so complete and accurate as to leave nothing to be desired. Most of those in this volume (viz., xix.) were written by our oldest correspondent, who has been connected with this journal from the first number to the present time.

The Licensing Laws: Important Decision.—The Cardiff magistrate has heard a case involving an important point of law. The proprietor of a coffee-tavern was summoned under the Licensing Act, 1874, and the Welsh Sunday Closing Act, for keeping his house open on a Sunday for the sale of refreshments. Upon the evidence adduced, the magistrate held that as wine was not sold by the defendant, but refreshments merely, the Acts did not apply. The Sunday Closing Act referred to houses where intoxicating liquors were obtainable. The summons was dismissed.

Montenegrins.—A correspondent, writing on Montenegro, says:—"There are two newspapers published in Montenegro—one the official journal, and the other a popular medical paper. Sixty copies of the latter are sold in Montenegro. When you read the paper, and find that its articles are on the way to live in health throughout the year, the evil consequences of wearing earrings, the proper treatment of infants, etc., you are surprised not that so few, but so many, copies of such a paper should be bought by Montenegrins. It is earnestly to be hoped that the laudations upon soap, which the paper—*Health*—contains may have some influence on those who read it. I regret to state that, after their baptism, the majority of Montenegrins do not often come in contact with water except when it rains."

Food Adulteration, France.—Sophistication, from the following account of it by a correspondent, appears to be carried out on a scale of considerable magnitude in France. Writing from Paris, on "What are we to eat, drink, or avoid?" he states that "the Municipal Laboratory has already purified our diet to a great extent, but our markets and restaurants are still stables in which Augeas would disdain to fodder his steeds. Another great wine manufactory has been rooted out in the neighbourhood of Paris, where all ingredients save the grape were employed—fuchsine, campeachy, sulphate of potash, etc.—and the water added to Burgundies and Bordeaux defrauds the *octroi*, etc., by eight millions of francs. Beer is adulterated with bullock's gall, picric acid, absinthe, gentian, nux vomica, strychnine, boxwood, and even cubebs. Our bread is made up of gum, chalk, starch, borax. Our butter is a mass of abominations. Our preserved vegetables derive their verdant hue from sulphate of copper; and our milk is a mixture of starch, flour, white of egg, and calves' brains. Cocoa and chocolate are made up of carbonate of lime or soda and oxide of mercury—in short, ingenuity is developed in multitudinous forms. A truffle manufactory has lately been discovered; they are made of frozen potatoes blackened by various salts and aromatised by phenol: and a Viennese has actually taken out a patent for the fabrication of coffee-berries. The Laboratory has taken up our defence, but how are all these falsities to be rooted out? Their gains are enormous, and the penalties ensuing on detection are insignificant."

Tobacco-smoking.—A good deal has lately been said about the injurious effects of tobacco-smoking, but, speaking at the Social Science Congress, Professor De Chaumont stated that tobacco had some value in lessening fatigue in those who were able to use it, though, of course, its use might easily be carried to excess. "In moderation, like alcohol, it was harmless, but in excess it was rank poison." Be it cigar, or cigarette, or pipe, each in moderation is not, at least, injurious. And it must be carefully remembered that the excess point is reached more quickly in some men than in others.

A Country Doctor.—A correspondent to a morning contemporary gives an amusing narrative of the life of a country doctor practising in a Berkshire village, with whom he has recently been on a friendly visit, concluding thus:—"'Truly in this world of ours, in which we claim universal citizenship, but few of us know how the others live, and I can only say that I think a useful lesson might be learnt from being brought into contact with one, who, if he be worthy his profession, must be so essentially unselfish and laborious, so willing to forego ordinary domestic comforts, often without hope of fee or reward, tender and considerate for those who suffer, and yet promptly self-reliant in the effort to relieve, and withal must carry about with him a brave heart, cheerful spirit, and untiring feeling of true charity like 'the country doctor.'"

Crewe.—The Medical Officer of Health, in his last quarterly report, ending September 30, shows that during the quarter the number of deaths registered was eighty, which gave a death-rate of 12·3 per thousand of the population. The death-rate in the preceding quarter was 15·1 per thousand. It was remarked at the meeting of the Town Council, when this report was submitted to them, that the death-rate was lower than in any other town of its size in the kingdom, and that no town, where the compulsory notification of infectious diseases was in force, could produce such a small death-rate from zymotic diseases. In Crewe compulsory notification was not enforced.

L. J. L.—Yes; 1875. It is estimated that we still import butter to the value of twelve millions sterling.

Benevolence.—A legacy of £20,000 has been bequeathed to the Salop Infirmary by the late Mr. H. Spence, merchant, of Shrewsbury. Messrs. G. and R. Dewhurst have made a donation of £100 towards the extinction of the debt on the St. Mary's Hospital, Manchester, and have entered their names as annual subscribers of five guineas.

No Smoker.—We take it you mean Cowper's lines, thus—

"Pernicious weed, whose scent the fair annoys,
Unfriendly to society's chief joys.
Thy worst effect is banishing for hours
The sex whose presence civilises ours."

Such sentiments have been growing more and more out of fashion ever since the Crimean War.

Urban and Rural Sanitary Works.—The Fulham District Board of Works are about to erect a public mortuary and coroner's court-house on land adjoining the cemetery.——A new infirmary has just been opened at Hope, in the Salford Union. It is built on the pavilion principle, and a continuous corridor connects the several blocks with each other, and with the administrative block, which is in the centre.——Extensive water-supply works are about to be carried out for the Local Board of Leyland, Lancashire.——A Local Government Board inquiry has been held at Hyde-under-Lyne, in reference to an application from the Town Council for sanction to borrow £550 for providing an infectious diseases hospital. ——Plans for the drainage of Saxmundham, East Suffolk, have been decided on by the Rural Sanitary Authority.——A laundry has been added to St. Martin's House, Hereford, at a cost of £215.——A convalescent home is to be built at Clacton-on-Sea, as a memorial to the late Mr. J. W. Perry Watlington, the subscriptions for which exceed £4400.——The enlargement of the county lunatic asylum at Powick, Worcestershire, has been resolved upon at a cost of £35,110, to provide accommodation for 210 patients.——The Wednesbury Local Board has approved of a united drainage scheme for the parishes of Wednesbury, Darlaston, and Tipton, and a small portion of Sedgley, at a cost of £79,500.——The Brentwood Parochial Sanitary Committee, after visiting the sewage works at Ealing, Middlesex, have determined to adopt the lime process as there carried out.——The financial statement for the twelve months ending the 15th ult. of the Forfar Sewage Farm shows an income of £424 19s. 7d., and an expenditure of £255 2s. 4d., leaving a balance of £169 17s. 3d. for the twenty-seven acres to which the town's sewage is applied, and the thirteen acres which are not irrigated. The crop from the sewage land realised £13 8s. 5½d. per acre, whilst that from the other portion only fetched £3 17s. 3½d. per acre. ——The Metropolitan Board of Works have agreed to permit experiments at Barking for the purification of sewage under the Parker and Andrews patent process.

COMMUNICATIONS have been received from—

Mr. Geo. Albrecht, Bremen; The Registrar of the Apothecaries' Hall, London; Dr. Crichton Browne, London; The Secretary of the Royal College of Surgeons, Edinburgh; Dr. J. Mitchell Bruce, London; Mr. J. B. Martin, Ventnor; Mr. Gustav Fischer, Jena; Dr. Meadows, London; Dr. McNeill Whistler, London; Dr. B. W. Richardson, Brighton; Mr. Henry Morris, London; Mr. J. Chatto, London; Mr. Malcolm Morris, London; Mr James Dixon, Dorking; Dr. S. Murphy, London; The Secretary of the Society of Arts, London; Dr. Braxton Hicks, London; Mr R. W. Western, Bath; The Secretary of the Royal Institution of Great Britain, London; Mr. E. W. Wallis, London; Dr. J. W. Moore, Dublin; The Registrar-General for Scotland, Edinburgh; Mr. J. T. W. Bacot, Seaton, Devon; The Hon. Secretary of the Society of Medical Officers, Southwark; Messrs. J. Smith and Co., London; The Secretary of the Hospital for Consumption, Brompton; Dr. Horace Dobell, London; Dr. Alexander, Liverpool; Mr T. M. Stone, London; The Secretary of the National Hospital for Consumption, etc., Ventnor; The Hon. Secretary of the Medical Society of London; The Hon. Secretary of the Royal Medical and Chirurgical Society of London; Dr. Thomas Oliver, Newcastle-on-Tyne; Dr. Hilton Fagge, London.

BOOKS, ETC., RECEIVED—

Guide to the Examinations of the Apothecaries' Society of London, by W. E. Dawson, L.S.A.L., etc.—Ambulance Lectures: Accident and Sudden Illness, by Lionel A. Weatherby, M.D.—Politzer's Text-book of the Diseases of the Ear, by J. P. Cassells M.D., M.R.C.S.—Whooping-Cough, by Thomas M. Dolan, F.R.C.S., etc.—The Diseases of Women, by Graily Hewitt, M.D., F.R.C.P.—Practical Chemistry, by J. Campbell Brown, D.Sc. Lond.—The History of the Year—Ectrotic Treatment of Varioles in Small Pox, etc., by Montague D. Makuna, L.R.C.P., M.R.C.S.—Kilner Brothers' Illustrated Catalogue of Bottles, etc.—Quain's Anatomy, vols. i. and ii.—Situation des Réseaux Téléphoniques—Report on the Health, etc., of the Borough of Birmingham for the Quarter ending September 30, 1882—Report on the Sanitary Condition and Vital Statistics of the Parish of St. Matthew, Bethnal Green, 1881-82.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Medicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Students' Journal and Hospital Gazette—Medical News—Field Naturalist, etc.—Practitioner—Zeitschrift für Diagnostik und Therapie—L'Impartialité Médicale—Midland Medical Miscellany—Ciencias Médicas—Glasgow Medical Journal—Analyst.

ORIGINAL LECTURES.

CLINICAL LECTURES
ON CASES OF PLEURITIC EFFUSION.

Delivered at the Hospital for Consumption and Diseases of the Chest at Brompton.

By R. DOUGLAS POWELL, M.D., F.R.C.P.,
Physician to the Hospital; Physician to the Middlesex Hospital.

LECTURE II.
ON THE PHYSICAL SIGNS OF EFFUSION.

GENTLEMEN,—Towards the end of my last lecture I enumerated the supplementary signs of Pleuritic Effusion—signs which, when present, help us in diagnosis as to the amount of the effusion, the locality of limited effusions, and the probable nature, whether it be serous, or sero-purulent, or purulent, of the fluid effused. It is unnecessary to discuss the value and mechanism of each separate sign. I will therefore limit my remarks on the present occasion to the alterations of measurement, of voice-conduction, of percussion resonance above the effusion, which are of value in diagnosis, and to certain additional signs which enable us to estimate to what degree of pressure, if any, the heart and lungs are subjected.

Much importance has always been attached to increased semi-circumference as a sign of effusion. On inspection there is generally an apparent enlargement of the affected side, whilst to actual measurement there may be little or no difference. Any relative enlargement that may be present is more obvious during deep expiration. The *total* circumference of the chest is, however, always increased in effusion. Thus, if you compare the cyrtometer measurement of the case I brought before you at my last lecture (see Fig. 1) with that taken the day after paracentesis (Fig. 2), (to which operation he afterwards submitted), you will observe that the first measurement gave a total circumference of 36 in., the right side being an inch larger than the left. The second measurement, taken two days after the removal of six pints of serous fluid, gave a total of 33½ in., the affected side being 1½ in. smaller, and the sound side ½ in. smaller than before. A very considerable quantity of fluid still remained after the operation.

In cases in which the effusion is of some standing, we may, as some other tracings I have here show, have actually diminished semi-circumference on the side on which there is still a large effusion. In any case in which we obtain decided enlargement of side—*e.g.*, 1 to 2 in.—we may be sure that the effusion is very large. The *shape* of the affected side is altered in effusion, being more rounded. This is well shown by the cyrtometer tracing (Fig. 1), and arises from the fact that the outspring of the ribs is entirely relaxed on the affected side (even if there be no positive intra-thoracic pressure), whilst on the sound side it is only partially so. When we bear in mind that the capacity of a globe is greater than that of any other shaped figure, and further remember that, in pleuritic effusion, the heart is displaced to the sound side (Fig. 1), it is clear that in all cases, and quite apart from any relative increase in circumferential measurement, there is increased capacity on the affected side of the thorax.

Cyrtometer tracings thus give us more information than tape measurements, since they also take into account altered shape. In the diagnosis of local empyema from basic pulmonary cavity, cyrtometer tracings are sometimes of value, showing in cases of local empyema an increased *convexity* of the tracing corresponding with the effusion, whereas over a lung-cavity some flattening is to be observed. This difference in outline between basic lung-cavity and empyema was pointed out also by Dr. Mitchell Bruce in his demonstrations here last year.(a)

Intercostal fulness or fluctuation is a sign of inconstant and rather exceptional occurrence in cases of effusion, intra-thoracic pressure alone being insufficient to cause it. It is more commonly present in children than adults, and especially in weakly children with wasted muscles. Ataxy of intercostal muscles, and a certain degree of laxity or softening of thoracic pleura, are needed for the presence of this sign, which, in my experience, has been more often associated with purulent than with simple effusion.(b)

FIG. 1.

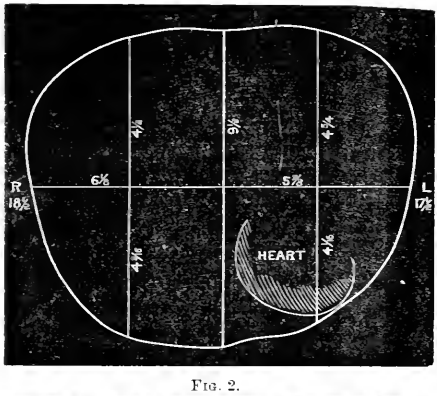
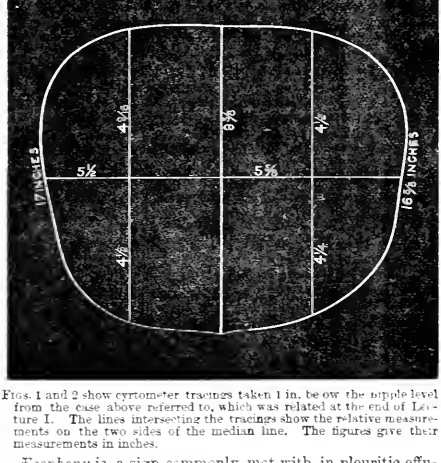


FIG. 2.



FIGS. 1 and 2 show cyrtometer tracings taken 1 in. below the nipple level from the case above referred to, which was related at the end of Lecture I. The lines intersecting the tracings show the relative measurements on the two sides of the median line. The figures give their measurements in inches.

Ægophony is a sign commonly met with in pleuritic effusions, and is of some value in the diagnosis of localised effusions from consolidation. It will often be observed on listening for ægophony in cases of acute effusion that a certain lisp attends the voice-sound, which lisp is more sharply conducted than the ægophonic sound. In such cases, if the whispered voice be listened to, it will be found to be very distinctly heard through the fluid. Dr. Bacelli, of Rome, some few years ago made some observations(c) upon the conduction of the whispered voice in different cases of pleuritic effusion, and he came to the conclusion that, when the whisper-sound is distinctly and articulately conducted to the ear through the thickness of the fluid (*pectoriloquie aphonique*), it may confidently be assumed that the fluid is

(a) *Practitioner*, March, 1882, page 161.

(b) Dr. Stokes draws attention to the fact that intra-thoracic pressure alone is insufficient to cause bulging of the intercostal spaces, which he considers as rather due to inflammatory paralysis, and as significant of severity of lesion, and therefore of value in prognosis. *Vide* Stokes, "On Diseases of the Chest," new edition, by the Sydenham Society, 1882, pp. 484-486, also pp. 510-511.

(c) "Sulla Transmissione dei Suoni Attraverso i Liquidi Endopleurici di Differente Natura" (*Archivi di Medicina*, etc., 1875).

clear; and on the contrary, when the whispered voice is not conducted, or imperfectly so, that the fluid is purulent or sero-purulent.

The difficulty of coming to a confident opinion as to the nature of the fluid present, by any method save that of exploratory puncture renders any additional and more trustworthy sign most acceptable. Almost all the signs and symptoms that have been considered characteristic of the presence of pus may yet co-exist with a perfectly limpid sero-fibrinous effusion. A high and fluctuating temperature, profuse sweatings, and quick pulse may persist for several weeks in a case of serous effusion,(d) but no practitioner could wisely allow such time to elapse without obtaining a sample of the fluid for certain diagnosis. On the other hand, a purulent effusion may be associated with symptoms of so mild a character as to lull suspicion. The discovery, then, of a physical sign such as the *pectoriloquie aphonique* alleged by Dr. Bacelli to be a safe criterion for diagnosis between serous and purulent effusion, was hailed with much satisfaction. Unfortunately, although of undoubted usefulness as an additional sign, it cannot be allowed that this sign has the crucial value attributed to it by its distinguished advocate. *Pectoriloquie aphonique* is heard in perfection in some cases of pure sero-fibrinous effusion, but I have also heard it very well marked in some cases of purulent effusion, and perfectly in cases of fœtid sero-purulent effusion. At the International Medical Congress, last year, I reported ten cases bearing upon this point. "In six of these, in which the fluid was clear, five yielded the sign, the sixth did not. In two cases, also acute, the fluid was purulent; yet in both cases Bacelli's sign was present when one would not have expected it. In two cases, both of old standing, the fluid was serous, containing effete pus elements; in one of them the sign was wholly absent, in the other it was present in a modified degree."(e) One of the cases above quoted as purulent (Case 7),(f) and another which I have recently seen with my colleague Dr. Finlay, led me to think that sometimes the fluid in sero-fibrinous effusions undergoes spontaneous decomposition, and becomes converted into a fœtid sero-purulent matter, a discoloured stinking fluid being removed on paracentesis. On this point a remark of Professor Marshall's is interesting; he observes—"The sero-fibrinous effusion appears to have a greater tendency to quick decomposition when air is admitted into the pleural sac than the sero-purulent or purulent product. Pus is more stable and less inclined to rapid putrefaction than sero-albuminous fluid."(g)

Cases such as I have just referred to, however, whatever their original nature may be, are those in which septic phenomena of the more virulent kind present themselves, of which continued rapidity of pulse, a red tongue smooth and denuded of epithelium, sometimes aphthous or thinly coated, complete anorexia, vomiting or diarrhœa, are the most characteristic. In the presence of such symptoms we may be sure that an effusion is purulent, and has probably undergone decomposition, and only with its free evacuation and disinfection will they vanish.

In all cases of doubt, then, I would still counsel the timely use of the needle-syringe,(h) by means of which a sample of the fluid can be obtained with little or no pain to the patient, and absolutely without danger of doing mischief.

It is of some importance in the diagnosis of any particular case of pleuritic effusion to estimate the degree of intra-thoracic pressure present; and our treatment of pleurisy cannot fail to be better aimed, the more precise our knowledge of the altered physical conditions brought about by fluid effusion. Anyone who had not fairly considered the normal conditions within the chest would say, "It is a very simple matter: given fluid in the pleura, you have intra-thoracic pressure in direct proportion to its amount." That this is not an accurate statement, however, some of you witnessed in a case of Dr. R. Thompson's of right-sided empyema, which was operated upon after my lecture last week. In this case the heart was beating to the left of the nipple-line. Skodaic resonance was obtained to about the third rib; elsewhere there was complete dulness over the right side, and other signs of a large effusion were present. We knew from a previous tapping that the fluid was purulent, and it was decided to make a free incision. Before doing this, however, I requested Dr. Hicks to introduce a medium-sized trochar having the cannula attached to a manometer. By this means it was found that the intra-thoracic pressure was *nil*, the mercurial surfaces remaining level except for slight respiratory oscillations and an occasional forcible agitation on the patient coughing. A large quantity (about four pints) of pus was then removed by free incision, but you will remember that *it did not escape until air was admitted to replace it*; there was no tendency for it to flow out spontaneously. If you examine these continuous tracings of the intra-thoracic pressure (*vide* Fig. 3), taken by means of an indicator floating upon the mercury of a manometer and writing upon a revolving drum, you will perceive that in all cases the pressure falls to zero early in the operation, and that towards its close the mercury gradually rises towards the chest, marking a – pressure. This period is indicated by more or less sense of constriction and cramp about the chest and diaphragm, and by paroxysmal cough, the pleura being still, however, in many cases, and especially those in which the lung is held down by adhesions, occupied by a large quantity of fluid.

From several observations taken during the last few years(i) I have found the intra-thoracic pressure to vary from a – pressure to ½ and 1½ in. of mercury at the commencement, and from – ½ to – ½ and even – 1 in. mercury at the termination of paracentesis, there being in all cases a more or less considerable amount of fluid still remaining in the pleura. Now, my own observations would lead me to assert that, in recent cases, the period of effusion at which the intra-thoracic pressure is converted from a – pressure or zero to a positive (+) pressure upon the lung and heart is marked clinically (1) by the dulness mounting up above the third cartilage (patient in sitting posture), and (2) by the Skodaic resonance becoming changed from the full note to a more tubular quality.

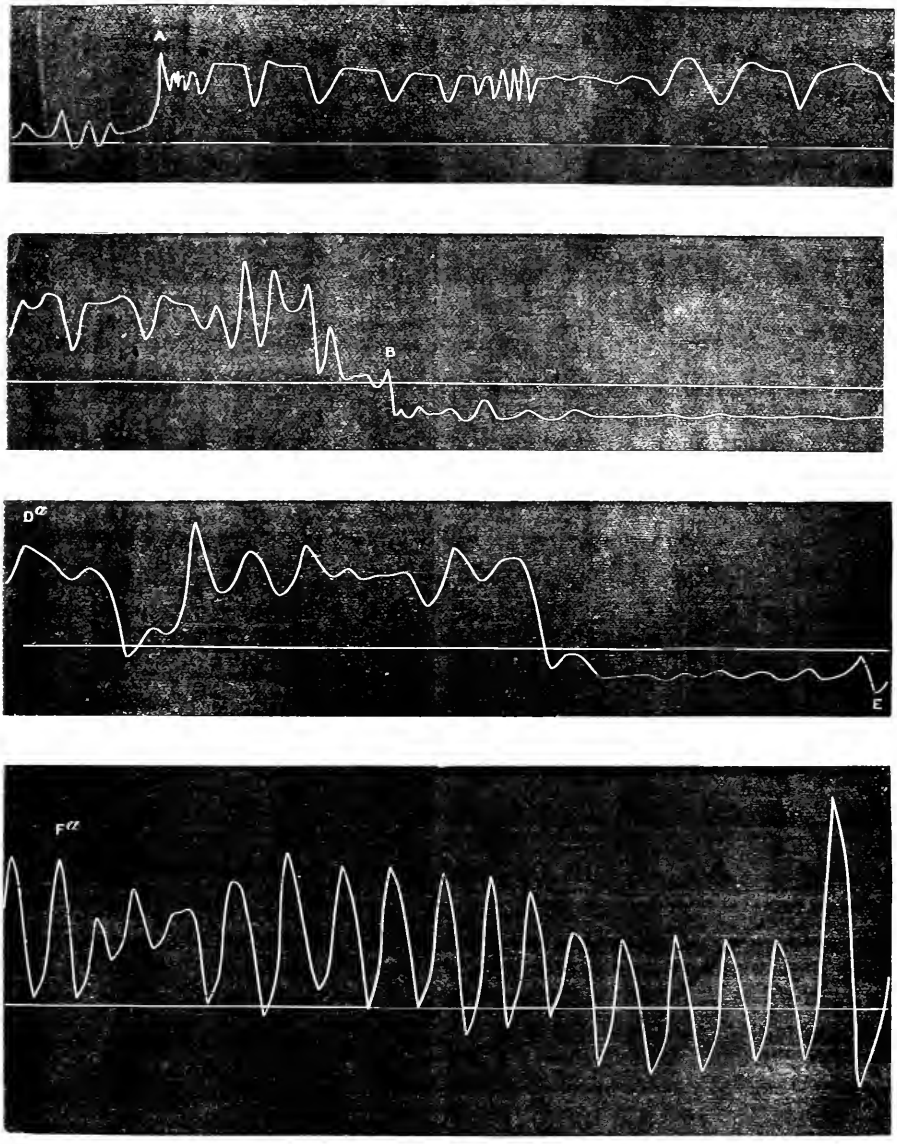
Skodaic resonance is thus of some clinical value in guiding us to a judgment as to the presence or absence of pressure within the thorax, and the advisability or urgency of interference by paracentesis. Different views have been held respecting the mechanism of Skodaic resonance in pleuritic effusion. Skoda himself regarded it as the relaxed lung note, due to the lung contracting upwards towards its root as the fluid advances, and, when in contact with the parietes, yielding a note on percussion similar to that given out by a healthy lung on the post-mortem table. My colleague, Dr. R. Thompson,(k) regards the note as significant of a lung still in contact with the parietes at the upper part of the chest, but slightly on the stretch, its periphery being adapted to the somewhat wider arc assumed by the ribs when released from the lung traction below. Whichever of these explanations we adopt (and they are probably both accurate at different stages of the effusion), it is obvious that a slightly –, or at least a 0 pressure is essential for the Skodaic resonance of this mechanism—the full-toned Skoda note. On the other hand, we often meet with cases of effusion in which at and near the sterno-clavicular angle a tubular quality of resonance is obtained, resembling the percussion note over a considerable lung-cavity, or over the cheek held on the stretch with the mouth slightly open. This resonance corresponds, I believe, with that explained by Hudson(l) as produced by the lung being collapsed upon its root, and thus yielding the tracheo-bronchial resonance. This note clinically signifies a higher degree of effusion than the other; it means that the lung is not simply contracted, but *collapsed* by the *pressure of the advancing fluid*. In the next degree of effusion all resonance of whatever kind is everywhere lost.

Let us now glance for a moment at the position of the diaphragm in different stages of effusion. I pointed out in my first lecture the very noteworthy fact that the arch of the diaphragm was maintained even in the presence of considerable effusion, and when the heart was displaced across

(d) Such a case is related at page 142, vol. ii., "Transactions of the International Medical Congress," 1881.
(e) "Transactions of the International Medical Congress," 1881, vol. ii. page 148.
(f) *Loc. cit.*, page 143. Case seen with Dr. Stamford, of Tunbridge Wells.
(g) "On Diseases of the Chest Cavity requiring Surgical Treatment," *Lancet*, February 25, page 300.
(h) The hypodermic morphia-syringe in common use may be well employed for this purpose.

(i) "On some Effects of Lung Elasticity in Health and Disease" [*Med.-Chir. Trans.*, vol. lix., 1876; see also *Clin. Society's Trans.*, vol. iii. p. 240).
(k) "Physical Examination of the Chest," p. 48.
(l) Quoted by Walshe, fourth edition, page 74.

FIG. 3.



The above tracings are cuttings from a continuous tracing taken during the removal of fluid from a case of large effusion sent into Middlesex Hospital under my care, by Dr. G. Davies, of Bayswater. A–B shows the excursion of the indicator above the base-line on first introducing trochar, recording a mercurial pressure of 1 in. during expiration, ½ in. during inspiration. At B, the syphon tube was opened with a fall of about 2½ ft.; it will be observed that the respiratory movements are now only faintly indicated. At D, two minutes after the commencement of the operation, the exit-tube was pinched, and the intra-thoracic pressure again recorded a maximum 1 in., with considerable and irregular respiratory changes, sometimes reaching zero during inspiration. At E, 62 oz. had been removed, syphon flowing, pressure = + ¼ in. during expiration, − ½ in. during inspiration. At F, the mean pressure has greatly fallen; the respiratory excursions are much greater and more even in the latter part of this tracing, the base-line = ∘ pressure, exactly dividing the oscillations. The last wave indicates cough, which became troublesome, and the tube became displaced, whilst still much fluid remained.

the sternum, and I have just demonstrated to you that the cardiac displacement, although *a valuable measure of the effusion, is no index of intra-thoracic pressure.* On the other hand, displacement of the diaphragm downwards cannot take place until the effusion is so large as to cause decided intra-thoracic pressure.

Each half of the diaphragm faces on the one side the cavity of the thorax, and is thus exposed to the same traction as the chest-wall and the mediastinum. On the abdominal side, however, the diaphragm is subjected to varying degrees of *positive* pressure, according to distension of viscera, etc. We have thus on the thoracic side of the diaphragm, always under normal conditions, a – pressure; on the abdominal side the prevailing pressure is +, although there may at times possibly be a – pressure, which can never, under any circumstances, contend against the elastic traction of the lungs. (m) The negative pressure is maintained within the pleura until the lung has completely contracted before the advancing fluid; after this point any further accumulation compresses the lung, and by its weight and pressure forces down the diaphragm. Hence displacement downwards of the abdominal viscera is a late phenomenon in pleuritic effusion. It also varies according as the patient has been keeping about or in bed. Further, I think it is more often met with in purulent than in serous cases; and possibly this may (if it be the fact, as my observations would lead me to think) be explained by the nutrition and elasticity of the lung becoming damaged by the more severe fever attendant upon suppuration.

It is obvious that mere loss of tone in the diaphragm would not, as in the case of the intercostals, account for the difference. The clinical outcome of these observations upon the displacement of the diaphragm is of very great practical importance—viz., that, as was first, I think, pointed out by Traube, and more fully explained in an admirable monograph by Garland, of Boston, (n) you may get stomach-note at the sixth rib in the nipple line in the presence of a large effusion on that side. Similarly, on the opposite side, under the same conditions, the liver-dulness may not be appreciably lowered. These facts are to be borne in mind in choosing the spot for paracentesis, otherwise awkward accidents may happen.

I have here a diagram-model (o) of the chest, with the aid of which I will endeavour to demonstrate some of the most important facts in thoracic dynamics upon which I have touched in the course of my lecture, viz:—

1. That until the pleura (previously under healthy conditions) is about two-thirds full of fluid no positive pressure is exercised upon lungs or heart.

2. Up to this point, therefore, there is no tendency for the fluid to escape on puncturing the chest unless air be allowed to replace it. Its removal, otherwise, can only be effected by aspiratory or syphon power.

3. It is only in effusions beyond this point, therefore, that the diaphragm becomes depressed.

4. On the other hand, the heart is necessarily displaced from the very commencement of the effusion, and in proportion to its extent: cardiac displacement being thus a valuable index of effusion, but no measure of intra-thoracic pressure.

VITALITY OF SEEDS.—Profs. Van Tiegheim and Bonnier have been making some experiments in order to exhibit the effects of different conditions on the vitality of seeds. Several packets were (in January, 1880) divided into three parcels, one of which was exposed to free, dry air; another was exposed to air also, but hermetically sealed; and a third was placed in pure carbonic acid. At the end of two years they were weighed and planted. All those which had been exposed to free air gained in weight, the beans weighing 1·50 and the peas 1·72 more; those exposed to confined air weighed much less; while those kept in carbonic acid remained of the same weight. When sown, 90 per cent. of the peas and 98 per cent. of the beans exposed to free air germinated; 45 per cent. of the peas and 2 per cent. of the beans kept in confined air did so; while none of those kept in carbonic acid germinated.—*Rev. Scientifique*, Oct. 28.

(m) The outspring of the lower ribs tends through the diaphragm to act as a counterpoise to the upward traction of the lungs.

(n) "Pneumono-Dynamics," pages 110, 111.

(o) The model shown was a somewhat improved pattern of that described in the author's work on Consumption, chap. vii., "Respiratory Mechanism in Health and Disease."

ORIGINAL COMMUNICATIONS.

NOTE ON SPASM OF THE FACIAL NERVE, OR TIC CONVULSIF.

By THOMAS OLIVER, M.D., M.R.C.P.,
Physician to the Infirmary, Newcastle-on-Tyne.

TROUSSEAU, in his "Clinical Medicine," while speaking of the various forms of chorea, draws attention to a condition of matters in which the facial muscles are the seat of rapid involuntary contractions. Beyond a short notice of the various muscles the subjects of twitching, and which he likens to chorea, there is little mention made of the causation or course of the disease. For more extended details we are indebted to Niemeyer, who, under the title of spasm of the facial nerve, or *tic convulsif*, gives a very accurate description of the spasmodic affection about to be related. According to both of these authors, *tic convulsif* appears to be a not uncommon ailment on the Continent. Of obscure causation it has generally been considered, like its *confrère* paralysis, to be the result of cold, the impression acting immediately on the fibres of the facial nerve itself, or producing spasmodic contraction of the facial muscles reflexly by acting on the filaments of the trigeminus. From the fact of its being regarded as a reflex condition, the result of irritation, many have sought to extend the area of irritation, and claim for its cause diseased conditions of uterus and rectum, while by not a few it has been considered the result of mental emotion. Met with more frequently amongst men than women, and owning for its duration a period long and uncertain, its treatment has on the whole been unsatisfactory. The use of diaphoretics and derivatives in the early stage is advised by Niemeyer, but in old standing cases, remedies, he says, are ineffectual. The application of electricity has failed to bring relief, while the suffering in some of the cases has been such that neurotomy has been resorted to.

Having met with a patient who exhibited this morbid irritability of the facial nerve, I venture to relate the particulars, fully aware that no positive conclusion as to the line of treatment can be drawn from results obtained in a single case.

G. A., aged forty-nine years, a blacksmith, placed himself under the care of Dr. Smith, of Ryton-on-Tyne, in the month of June last. In the first week of July I saw him in consultation, when we were both very much impressed by the peculiar epileptiform seizures on the left side of patient's face. Dr. Smith very kindly allowed me to have the subsequent care of the case; and thus, through his courtesy, I have the opportunity of placing a few interesting details on record.

Ten years ago, patient, who is a spare man, temperate, and who has never had syphilis, suffered from similar attacks of twitching on the left side of face. This passed away, and, beyond leaving a little weakness in the tongue, patient was in every respect well until three weeks before Dr. Smith saw him. There has been no injury to the head and no exposure to cold other than that associated with his employment. The convulsive seizures are intermittent—they come on about every five minutes, and last from one to two minutes. The twitchings affect the muscles of the left angle of the mouth, left half of brow, left ear, and left sterno-cleido-mastoid muscle. When they recur his face wears a peculiar aspect: it is that of a grin, only the muscles of the left side are so tightly drawn as to give to the face the expression of pain; the right side remains perfectly flaccid. When the spasms are severe he has difficulty of breathing; he feels too as if he were choking, owing to the extremely painful contraction of the left sterno-mastoid; and as the breathing is interfered with, the lips become cyanosed. During the period of the fit, saliva keeps flowing from the left angle of the mouth, and patient keeps rubbing his neck to relieve the painful cramp which is there. Before the twitchings commence he feels as if the floor of his mouth were too tightly drawn. Immediately after this the facial muscles become convulsed. The attacks are not, as a rule, associated with unconsciousness, but on a few occasions he has lost consciousness. After these attacks of spasm, patient's speech is extremely indistinct. The tongue on protrusion deviates to the left; but this, he says, has always been the case since his first attack.

When there is no spasm his face as a whole is rather flaccid: he has complete power to move the right angle of the mouth and to contract the muscles of the right side of his face, but he cannot move those on the left side. There is, therefore, paralysis of the muscles that are the seat of recurring spasm. When at meals, the food sometimes gets in between the left cheek and the gum, and has to be removed by the finger. As the fits pass off, the twitchings become larger and slower. Pain with stiffness is felt also over the back of the neck. The fits entirely cease when he is asleep, and never wake him. There is a slight degree of paresis of the muscles of the left arm. At no part is there hyperæsthesia or anæsthesia. Eyesight is good, and pupils are equal. Patient had been taking small doses of bromide of potassium; these were increased to one drachm thrice daily along with ten grains of iodide of potassium.

On July 15, patient said he felt much better, and that the spasms had not been so numerous. On August 19 he was following his employment,—he had not had any twitchings for more than a week; and on October 9 he reported himself as quite recovered. The muscles on both sides of the face were normal and under control.

This record differs somewhat from that of Niemeyer, for in G. A. the left digastric muscle and sterno-mastoid were involved in the spasm. The patient's chin was drawn to the left, the lower jaw was depressed, and the head was bent towards the left. The convulsive seizure was not, therefore, confined to muscles supplied by the facial nerve, nor did anæsthesia remain after the fit had passed away. There was, however, paralysis—but paralysis, I think, of the type mentioned by Hughlings-Jackson as the sequel of epilepsy. Some time ago this writer drew attention to the fact that after epilepsy the muscles are found in a paralytic condition, in which they remain until the nerve-centres recover from the exhaustion consequent upon over-discharge of nerve-force. Such occurred, I think, in this case, for, owing to the rapidity of the seizures, time was not given for the nerve-centres to be re-endowed with energy. Electrical tests were not applied, but cessation of the spasms for a few days was followed by complete return of power to the muscles of the face. Trousseau considered the twitchings I have mentioned choreic, and, as they were involuntary and ceased when patient fell asleep, the similarity is maintained. On the other hand, there is the possibility that they were epileptoid, for on a few occasions they were accompanied by unconsciousness—unconsciousness which might be explained by a degree of stasis in the cerebral vessels from pressure on the veins of the neck—but of this we have no positive evidence as to its having been met with only in the severest paroxysms.

INTERMITTENT FEVER IN ATHENS.—In a paper read by Prof. Caramitzas at the Athens Congress, he states that that capital suffers much from marsh fever. Thus, among the 34,471 cases of disease treated at the Athens Polyclinic during 1860-70, there were 10,373 cases of marsh fever. The proportion varied in different years, the highest having occurred in 1865, when more than half the cases treated (2924 of 5188) were marsh fevers. In the other years the proportion varied from one-third to one-ninth. Of the 10,373 cases of marsh fever, 385 occurred during the first and second years of life, 1502 between the second and seventh, 2447 between the seventh and fifteenth, 3863 between the fifteenth and thirtieth, 956 between the thirtieth and fortieth, 650 between the fortieth and fiftieth, 357 between the fiftieth and sixtieth, 171 between the sixtieth and seventieth, 33 between the seventieth and eightieth, 3 between the eightieth and ninetieth, and 3 at above the one-hundredth.—*Gazette Méd. d'Orient*, September.

ANECDOTE OF LISFRANC.—Some fifty years ago, modes of operating for cataract were not so numerous as at present, there being only four—depression, extraction, reclination, and breaking-up. One day an old lady came to Lisfranc's clinic, suffering from cataract, and who had a habit of mispronouncing technical terms. Lisfranc having examined her eyes, said, "My good lady, you have been operated upon twice, you say; can you tell me what procedures were adopted?" "Certainly I can; Dupuytren operated upon me by *amusement*, and Roux by *distraction*." "Oh, then," added Lisfranc, "since amusement and distraction have done nothing for you, I will proceed to operate upon you by *inclination*."—*Presse Méd. Belge*, November 5.

A CASE OF SPLENIC HYPERTROPHY.

By Dr. LUCAS, F.R.C.S. Edin.,
Surgeon 23rd N.L.I.

AN emaciated and mal-nourished subject, fifty years of age, a Hindoo by caste, and a native of Nassick, came under treatment at Ahmedabad on account of long-continued agne and diarrhœa, with abdominal enlargement and pain. The abdominal enlargement was of a year's duration. The patient was also troubled with cough, more especially at night. Pulse small and feeble; skin feverish; bowels irregular; appetite poor. The abdomen measured thirty-five inches in circumference at the level of the umbilicus, and ten inches from the umbilicus to the top of the ensiform cartilage, which, in the emaciated condition of the patient, was a great deal. The spleen was enormously enlarged, and the lower end of it could be felt very low down; there was distinct fluctuation in the abdomen, and indeed the appearance of the abdomen left little doubt as to its being distended by fluid. In the front of the thorax, beyond a slight harshness of respiratory murmur at left apex, there seemed nothing abnormal; over both bases there was dulness of the percussion-note, especially on the right side, where the lung-sounds were inaudible, and vocal resonance was increased: on the left side these signs were not so marked. The expectoration was frothy mucus streaked with blood. The lymphatics in the groin, axillæ, and neck, and a few subcutaneous ones over the abdomen, were enlarged. Percussion and palpation of the liver were obscured by the presence of fluid in the abdomen. The consent of the patient having been obtained, the belly was tapped, and ninety-four ounces of fluid removed, and the abdomen supported with strapping. A mixture containing large doses of the muriated tincture of iron and sulphate of cinchonidine in infusion of chiretta was ordered; and the compound camphor liniment as an embrocation for the chest. The diet was liberal, with alcoholic stimulant. He left greatly relieved by this treatment after a time.

Remarks.—In such a case, where dropsy aggravates distressing symptoms by the fluid pressing on important organs, such as the stomach, liver, lungs, etc., preventing the assimilation of food, causing and increasing serous effusion by pressure on the portal vein, pressure on the bile-duct impeding the secretion of bile, and pressure upwards against the diaphragm producing pneumonia, etc., we believe it is always a wise plan to operate and remove the fluid, and, if need be, re-tap. No harm could possibly be done with ordinary precautions; and very often, as in this case, considerable relief is afforded, and life prolonged.

TREATMENT OF SEQUELÆ OF FROST-BITE.—The *Phil. Med. Reporter* (October 7) observes that Dr. Lapatin, of Tiflis, communicated to the Caucasian Medical Society his discovery of an effectual means for the relief of a very annoying sequela of the milder degrees of frost-bite, in the form of pains and a very annoying prickling sensation in the parts, which for years come on, especially in the colder seasons and on sudden changes of weather. After trying all the remedies which had been recommended, he found that the best was an old one called "Rust's frozen wash," consisting of equal parts of dilute nitric acid and peppermint-water. With this the parts are brushed over once or twice a day, preferably by means of a glass brush. After three or four applications the skin assumes a brown colour and becomes dry, and a superficial scab forms, which when thrown off leaves a healthy skin. Within one and a half or two weeks the sensations, which frequently prevent the soldiers from putting their boots on, disappear for ever. The writer in the *Reporter*, however, states that he knows a far better, quicker, and more reliable remedy, which never fails if mortification has not set in, viz., balsam of copaiba. This is spread thickly on a piece of muslin or linen, and the affected parts covered with it during the night, a stocking being put over the whole. In the day some of the balsam is merely spread over the parts. After one or two applications the redness and pains all cease, and a few more not only remove every residue, but seem to impart a remarkably increased vital resistance to the parts against frost-bite, if only common precautions be used. The writer has long considered this remedy an unfailing specific.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

EAST LONDON HOSPITAL FOR CHILDREN.

CHOREA AFTER SLIGHT RHEUMATISM—"RHEUMATIC NODULES"—ANÆMIA—DEATH (SUBSEQUENT TO REMOVAL FROM HOSPITAL).

(Under the care of Dr. EUSTACE SMITH.)

SOPHIA M., aged eleven years, a limitted from Dr. Warner's out-patients, August 29, 1882, on account of chorea.

Family History.—Father healthy; mother phthisical; four other children, one of whom has also had chorea, twelve months ago.

Previous History.—About five months ago she had pains in both feet, and then swelling; she became feverish and had to keep her bed. Was seen by a doctor, who pronounced the disease acute rheumatism. This attack lasted two weeks. The pains wandered about, and then located themselves in the chest. A week before admission her mother noticed the choreic movements—her eyes chiefly; then she could not hold anything in her hand for any length of time.

On admission it was stated that the child had not been able to walk. She is very low and depressed, very pallid, and very fretful. Dr. Warner (who saw the case in Dr. Smith's absence) dictated the following note:—"Heart: Systolic bellows-sound at apex, well conducted into axilla; second sound much accentuated; occasionally a grating sound is heard at apex. No nodules found on the tendons. Choreic movements very moderate in degree on both sides. There is considerable muscular feebleness; movements slightly affecting face, tongue, and eyes. Speech good." Small doses of bromide of potassium six times a day.

September 7.—Movements got worse. Last night they were very violent, and she had some bromide and chloral.

15th.—On resuming his ward work, Dr. Smith noticed that there was a nodule on the tip of each spinous process, some larger than others. The tendons around wrists and ankles free from them.

19th.—The child is worse in every way; the movements are more irregular; speech and swallowing are difficult. She is extremely pallid; has wasted greatly since her admission.

22nd.—Dr. Smith dictated: "Muscles of deglutition act convulsively when food is put into the mouth. She lies quietly during the day, but her movements are very irregular at night. She contracts the muscles of the face; eyeballs sometimes tremble. Often passes her urine beneath her." Ordered liq. opii sed. ℥ v., chloral gr. x., ex aquâ; omni nocte.

26th.—She seemed much better and more cheerful; swallows better, and takes food willingly.

29th.—The pallor is still very marked. Is taking quinine and iron mixture, and has three ounces of wine daily.

30th.—Not so well again. She cried the greater part of the day; her breathing was distressed, and she looked cyanosed. The alæ nasi were dilating; respirations quick and sighing.

The friends, fancying that she was unhappy, decided to take her home, which they did, contrary to the Resident Medical Officer's advice.

She died rather suddenly the following day. No post-mortem was allowed.

Remarks.—The association of chorea and rheumatism is of great interest, and the development of the subcutaneous nodules (first described by Drs. Barlow and Warner) during a very severe attack of chorea seems still further to approximate these diseases. There can be little doubt that the girl suffered from subacute rheumatism a few weeks before her admission, although the history on this point failed to elicit any very clear account. The child had mitral disease; it is possible, therefore, that the chorea was embolic. It occurred on both sides, however, and affected one limb as much as another. She presented no rheumatic pains or symptoms while in the hospital, unless the development of the nodules along the tips of the spinous process might be regarded as a relapse of the rheumatism. The child died of asthenia and anæmia, which progressed, treatment and nursing notwithstanding. It is much to be regretted that the child's removal home by the parents, contrary to the wish of the Resident Medical Officer, prevented an autopsy which might have proved very instructive.—[*Rep.*]

PERI-TROCHANTERIC ABSCESS—DISEASE OF HIP-JOINT—AMPUTATION—ULCERATION INTO OBTURATOR ARTERY—HÆMORRHAGE—DEATH—AUTOPSY.

(Under the care of Mr. PARKER.)

Theresa C., aged nine years, was admitted January 7, 1881, with a peri-trochanteric abscess of the right thigh. She was one of seven children, all of whom were healthy except herself. No family history of phthisis. Both father and mother had had rheumatic fever.

When this child was admitted she appeared to be in good general health; was fat and plump. The hip-joint seemed not to be implicated, for rotation and flexion could be practised without causing pain. In the course of time, however, movements became painful, and hip-joint disease, with rapid destructive changes, quickly set in. This tendency to get worse, although the patient was kept absolutely at rest, characterised the disease throughout. After having tried every means to arrest the disease, without success, and as the general constitutional condition became daily worse and worse, excision of the hip was decided upon and carried out. The acetabulum was found very much diseased, and perforated about its centre. The head of the femur was almost detached from the neck of the femur, which was carious and breaking down. For some two or three weeks after the operation her condition was critical. Then she began to rally, and made a little improvement. This only lasted a few weeks, and she then lapsed back into her old hectic condition. It was now decided to remove the limb at the hip, and this was done; the femur was found to be diseased in the greater part of its shaft; the iliac bone was also extensively diseased. At the operation as much diseased bone was scraped away as could be, and the parts were then swabbed with chloride of zinc solution. There was again a temporary improvement in the child's condition; but it was as temporary and as deceptive as on the former occasion. A month later, Mr. Battams, the Resident Medical Officer, was hastily summoned one night, as the child was bleeding. He found that a considerable quantity of blood had already been lost, for the bedclothes were soaked; it was oozing from sinuses above Poupart's ligament. Pressure on the external iliac artery arrested this at once; but the child sank, exhausted, within half an hour.

At the autopsy, on dissecting out the innominate bone, it was found that the body of the pubes had ulcerated quite away, the symphysis pubis being held by the ramus of the pubes, and not otherwise connected with the ilium. This ulceration seemed to have commenced at the junction of the iliac and pubic portions of the bone, which had probably not yet united. The process of ulceration had spread into the obturator artery, and the hæmorrhage from this vessel was the immediate cause of death. The acetabulum could hardly be traced; the iliac portion of the bone was also extensively diseased, and the sacro-iliac synchondrosis of that side was involved in the same destructive process. The pelvic fascia was much thickened, but not perforated. The pelvic organs appeared healthy.

Remarks (by Mr. Parker).—This case is not sent in full—its publication is intended to illustrate *an accidental cause of death* which may carry off a patient, rather than the history of hip disease. The discussion at the Clinical Society, published last week, turned on this point, and it is one of great practical interest to surgeons. If I had been present, what would have been the best surgery under the circumstances? Ligature of the external iliac artery would probably have suggested itself, and in this case it would have been useless, for the hæmorrhage came from a branch of the internal iliac. Under any circumstances the operation would have been very difficult, on account of the sinuses and the inflammatory thickening around them. Furthermore, the ulcerative process would have been in nowise arrested, and the chance of recovery would therefore have been practically hopeless. The case, beginning as a somewhat chronic peri-trochanteric abscess, gradually developed into one of acute destructive disease of the bones entering into the formation of the hip-joint. It progressed in spite of careful treatment, and terminated accidentally in the manner already described.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 18, 1882.

THE HEALTH OF BRIGHTON.

In June, 1864, Dr. W. B. Richardson published in our pages a medical history of Brighton. In the eighteen years that have elapsed the sanitary condition of the town has changed greatly for the better. The cesspools, which were then general, have well-nigh disappeared; and the eleven miles of sewers, discharging their foul contents along the line of beach mid high and low tide, have been succeeded by sixty miles of well-constructed sewers carried to an outfall four miles to the east of the town. For several years the health also of Brighton has been unusually good; the death-rate has been below the average of that of the Registrar-General's twenty large towns, and the zymotic mortality from 1870-80 was but 2·52, against 4·32 in the others. But a remarkable outbreak of certain diseases of this class suddenly raised it to 8·17 in the first quarter of the present year, and to 4·87 in the second. The public—who look to Brighton as the most accessible, and, in many respects, one of the best of health-resorts—were naturally alarmed, and all manner of speculation was rife as to the cause. Some of our contemporaries, lay and medical, arrived at the conclusion that the sewerage—or, as the unprofessional call it, the drainage—was greatly in fault; and their pages were crowded with letters from visitors describing the foul odours which escaped into the streets from the sewer-ventilation. Not unnaturally, the authorities—the Mayor, the Corporation, etc.—and the public of Brighton generally, were very indignant. They are vitally interested in the healthiness and sanitary reputation of London-on-the-Sea, and they had spent very large sums of money, under the "best advice," in carrying out a new and extensive system of sewage disposal; and it was very hard and altogether intolerable that any fault should be found with their sewers, or any suspicion hinted regarding the perfect sanitary condition of the town. Much ink-shed and public agitation ensued; people let "their angry passions rise"; and an action for libel was commenced by the public authorities of Brighton against our contemporary the *Lancet*. Happily, wiser measures were also taken. Reports on the Brighton sewerage were obtained from two eminent sanitary engineers, Sir Joseph Bazalgette and Mr. Bailey Denton; and lastly, the Mayor and Corporation employed Dr. Richardson to report to them on the sanitary condition of the town. All the reports admit that there are, judging by the sanitary science of the present day, defects in the system of drainage and sewerage that may and ought to be remedied, though the system, when devised and carried out, was considered by high authority the best possible; and Dr. Richardson triumphantly vindicates the sanitary reputation of the town. One good result has already followed—the action for libel has been abandoned; and we trust the question of how best to free Brighton from any and every kind of sanitary shortcoming will be discussed with scientific calm and freedom.

Dr. Richardson's inquiry was carried out in September last. He made a careful inspection of the town; visited forty of the largest private and all the public schools, every hospital, asylum, and similar institution; conferred with the parochial, dispensary, and other medical men, and the sanitary authorities; and inspected the sewers, slaughter-houses, and cowsheds, the bakeries, the lodging-houses, and the town generally. The result of his inquiries appears in the form of a thoroughly exhaustive report that occupies fifty-seven foolscap pages, and furnishes a satisfactory explanation of the exceptionally high mortality-rate of the town at the period mentioned. He found the sanitary arrangements of the schools and institutions decidedly superior to those met with in most towns, and the health of the inmates unusually good. In some, where numbers of children resided, no case of zymotic disease had occurred for many years. He found no specially prevailing epidemic or contagious disease in the town or district; and nothing whatever to point to any extant local cause as producing such diseases; and he reported the health of the town as unusually good.

With regard to the outbreak of zymotic disease in the recent past, Dr. Richardson points out that if it were attributable to any defect of the sewerage, that defect must have been either of long standing or due to some temporary and accidental condition. The former supposition is negatived by the past history of the health of the population, by the rarity of small-pox, diphtheria, and diarrhœa, and by the absence of croup, erysipelas, puerperal fever, and surgical fever; the latter by the fact that a study of the recent mortality shows that it was precisely those diseases which are propagated by direct contagion that raised it to such a height. The excessive mortality was mainly due to measles, whooping-cough, and scarlatina. There was also, it is true, a local outbreak of enteric fever, but that was clearly proved to have been caused by milk-infection. Indeed, the long immunity from any epidemic of the three first-mentioned diseases had led to the accumulation of a large susceptible population, affording ample materials for an epidemic if once the infection were introduced; and the far greater proportion of the cases occurred in the poorer and densely peopled quarters.

With regard to the outbreak of enteric fever, it was traced to a dairy, the milk from which was shown by analysis, on September 20, to be largely diluted with foul or contaminated water, to have a bad odour, to be undergoing rapid lactic fermentation, and in other ways to be unfit for use. Of 91 families who drank milk from this source 26, or 1 in 3·5, were attacked; while of 6,06 families in the immediate neighbourhood supplied from other dairies, only 27, or 1 in 25·7, were attacked, and these probably indirectly. The cistern whence the water for adulteration was taken was foul in the extreme. But even clearer proof was afforded by the case of five members of a family from another part, four of whom casually drank this milk in the third week of September,

and were attacked by typhoid, one dying; while the fourth, who did not partake of the milk, escaped. There was at the time, in the house at which the milk was drunk, a case of typhoid. All the cases of typhoid, with two exceptions, occurred subsequently to the end of September. It is thus seen that the excessive mortality of the present year was owing to diseases having no direct causal connexion with defective drainage, and was only what may be expected to occur wherever a long freedom from epidemics has been enjoyed: indeed, considering the great liability of Brighton to introduction of these disorders from London and elsewhere, the wonder is that the death-rate from them should be, as a rule, so low.

Dr. Richardson examined very fully and very minutely into the sewerage and drainage of Brighton, and found no evidence that the sewerage had proved a source of zymotic disease. He states that the system of disposal of sewage is not the one that he would have suggested; but his researches forced him to the conclusion that "the zymotic diseases which might be attributed to sewer-gas have been less fatal in Brighton than in other towns of equal size for many years past, and singularly so during the time that the present system has been in operation." He found the air of the great intercepting sewer "much less offensive than would be expected," though this sewer is the weakest point in the system, inasmuch as the sewage of the town is locked up in it twice in the twenty-four hours of each day, and the locking-up lasts during rather more than half the full day. To obviate the consequences of this tide-locking of the outfall, which—or the worse alternative of backwatering—occurs wherever sewage is discharged into the sea or into tidal rivers, Dr. Richardson suggests arrangements for pumping the sewage into the sea during the periods in which the outlet is closed. The measure was recommended by Mr. Bailey Denton also. Under existing circumstances, precluding the construction of sewage tanks, the outlet being at the foot of lofty cliffs, such an expedient is perhaps the best; but it may be suggested that it would have been better still to have carried the main sewer westwards, and instead of wasting the sewage, to have utilised it in the irrigation of the wide tracts of low-lying but riverless land to the west and north-west of Hove. A higher gradient would have been obtained for the sewers in Kemptown, and the cost of construction would have been less, to say nothing of the agricultural advantages of sewage-farming on a soil specially adapted to such operations.

On the whole he was able to bless—as of course it was hoped he would—the working of the sewerage and drainage. He found no sewage deposit in the sewers, no leakage in the intercepting sewer, no special indications of escape of sewer-air into the houses, and as little of emanation from the ventilators as in London. All this, and a great deal more on the general sanitary conditions of the town, are set forth, with great skill and out of an abounding knowledge, in Dr. Richardson's report; but he winds up with a great number of "suggested improvements in sanitation in Brighton," and among those regarding the sewerage and drainage the first is, "I should increase enormously the present surface-ventilation." Sir J. Bazalgette and Mr. Bailey Denton also would largely increase the ventilation of the sewers; and in other main points Dr. Richardson's recommendations agree in principle with those made by the sanitary engineers. All agree that something is needed, and much needed, to improve the system of sewage disposal. Dr. Richardson also urges the application of the Artisans' Dwellings Act, 1875, to the more densely peopled and poorer districts, as well as many other measures which would, he believes, have the effect of making Brighton "all but a modern Hygieopolis in health as well as in beauty."

BACILLUS OF TUBERCLE.

It must be a matter of considerable anxiety to every thoughtful individual engaged in busy practice to know precisely what attitude of mind he is to adopt with regard to the pressing question of the relation which exists between micro-organisms and tuberculosis. Is he to take for gospel the doctrine that phthisis is as much caused by microphytes as hæmaturia is by *Bilharzia hæmatobia*? Or, again, is he to believe that these microzymes are no more necessary to the disease than the whistle of a steam-engine is to the escape of steam? Or, further, ought his mind on the subject rather to be still in a state of solution, ready to crystallise, however, on the proper occasion. Many minds dislike a tentative posture; they like to have a solid ground to walk upon, and no doubt have already taken the tide at its flood, and are now firm believers in the inferences which have been drawn from recent observations and experiments. The bacillus alleged to be the cause of phthisis has been shown to exist in the tubercles of various organs, and also in the purulent secretions from tubercular cases. In the *Berliner Klinische Wochenschrift*, No. 45, is a report by Balmer and Fraentzel on the presence of bacilli in the sputa of cases of phthisis. The results of these investigations on 120 patients are quite in accordance with the latest teachings of Koch and other modern advocates of the infective nature of tuberculosis. The first grand instalment of knowledge which the above-named observers have made out may be thus succinctly expressed—No bacillus, no tubercle; where the bacillus is found in the sputa, there we have to deal with a case of phthisis. The presence of the microbe is the seal of the patient's doom. So far the authors have not presented us with any actually new discovery; they have simply arrived at a conclusion similar to that reached by other observers, after a clinical research which does not involve any very great trouble to carry out, and which, on their theory, is a new means of diagnosis between doubtful cases of pulmonary disease. The method adopted in preparing the specimens was that employed by Koch and Ehrlich. The sputa were dried on cover-slips at a heat sufficient to coagulate albumen (the flame of a Bunsen's burner was used), and then the thin glasses were left in the dye solutions (gentian-violet and fuchsin) for quite twenty-four hours. The next proceeding was to thoroughly wash the preparations in distilled water, and afterwards immerse them in a dilute solution of nitric acid (one to three), from which they were again cleaned with distilled water. The specimens now require a background, against which the coloured bacilli may be more distinctly projected by contrast. For those rods stained blue by the gentian-violet solution, Bismark brown was used; and for the bacteria coloured red by the fuchsin solution, methylin blue gave the ground colour. The cover-slips having remained from half to one minute in these fluids, were again washed in distilled water, and finally dried by means of blotting-paper, and, if necessary, heat was again employed. The preparations were finally mounted in Canada balsam—we presume after having been passed through alcohol and oil of cloves in the ordinary manner of stained specimens. Not only does the bacillus thus discovered clench the diagnosis of phthisis, but the characters of the lowly organisms are a guide to the sort of case and to the prognosis. Where the find of bacilli is large, and the organisms are well developed, we are concerned with a severe case of tuberculosis, and the prognosis is proportionately bad. The number of bacteria detected in the tubercular sputa of an individual case is not constant; it waxes and wanes with the disease, being most numerous when the destructive processes are at their worst, and reaching its maximum *sub finem vitæ*. Sometimes

the microzymes are generally disseminated in the sputa; sometimes they are arranged in groups; sometimes they are plenteous, and sometimes scarce; and they may be discovered when the morbid process is very chronic, or even at a standstill, although then their numbers are much thinned. In rapidly progressing cases the formation of spores is seen to great advantage. These are the facts and inferences which Balmer and Fraentzel have brought to light by their investigations on 120 various phthisical individuals. The presence, numbers, and appearances of the bacilli in the expectoration will be seen to tally with the nature, course, and characters of the pulmonary mischief. The life-history of the bacilli, as manifested in the sputa, forms, as it were, a complete interpretation of the processes that go on in the lung, in the same fashion as a system of words is the counterpart of a train of ideas. Such results, we think, should *à priori* have been expected, if the notion that the micro-organisms are the cause of the affection be true. We suppose there can be no reasonable doubt that the observations and inferences therefrom are correct: but, that aside, it is quite possible that the evolution and involution of the bacteria in the sputa may proceed without there being necessarily a total causal relationship between the germs and the disease,—just as the noise from a cataract may increase and decrease merely as a companion to the varying mass of water rolling, without having anything to do with the cause of the variation in the quantity of water.

THE METROPOLITAN IMPROVEMENTS ACT, 1877.

THE case of "Spencer *v.* The Metropolitan Board of Works," to which we briefly referred last week, deserves more than a passing notice. It will in all probability have important results, inasmuch as Mr. Justice Chitty's decision must add not a little to the already great difficulties that the Board of Works have had to contend with in attempting to carry out the Metropolitan Improvements Act, 1877. This Act empowered the Metropolitan Board of Works to acquire or appropriate, from time to time, certain specified lands, and to remove houses, for the purposes of widening and making streets. Among the new streets mentioned in the Act was one from Piccadilly-circus to the Bloomsbury end of Oxford-street, which would pass through a poor and crowded part of London, and necessarily would displace a large number of the labouring classes. But the very grievous hardships and evils caused when the great railway companies first obtained land in the metropolis, and destroyed, in order to make room for their lines and stations, the dwellings of tens of thousands of the poor, had been brought forcibly to the attention of the Legislature; and consequently, in the Act in question, care was taken to prevent any sudden or great destruction of houses inhabited by the labouring classes unless provision was made for them elsewhere. The Act empowered the Board to sell or let on building lease the land which they appropriated, for the purpose of erecting suitable dwelling-houses or lodging-houses for the labouring classes; but Section 33 provided always that before the Board shall be permitted, without the consent of a Secretary of State, to "take" for the purposes of the Act any fifteen houses, or more, occupied partially or wholly by persons belonging to the labouring classes as tenants or lodgers, the Board shall prove, to the satisfaction of a Secretary of State, that sufficient accommodation in suitable dwellings has been provided elsewhere, upon land specified in the Act, or upon other land approved by a Secretary of State, for the same number of persons. In the case to which we refer, which was heard before Mr. Justice Chitty, in the Chancery Division of the High Court of Justice, on the 6th inst., the Board had served "a notice to treat" on the plaintiff, who was owner of sixty-three houses in St. Giles's parish, and had served him with notice of summoning a jury to assess the purchase money and compensation. The houses in question are occupied by persons of the labouring class; and the plaintiff contended that the Board had not complied with the terms of Section 33 of the Act—had not obtained the consent of a Secretary of State, or provided as yet the required accommodation for the persons who would be displaced; and he therefore brought the action for an injunction to restrain the Board from acting upon the notice to treat till the proviso in Section 33 shall have been complied with. The question to be decided was the meaning of the word "take" in Section 33. The contention of the Board was that the word "take" was to be read as meaning "take possession of," and that it could not be supposed that the intention of the Legislature was to impose upon the Board the great and needless expense and obligation of providing dwelling-houses for the displaced labouring classes at a period long antecedent to their displacement. It was stated that the operations of the Board in making the new street in question will involve the displacement of 5000 persons of the class which Section 33 of the Act is intended to protect. The view taken by the Board does not seem unfair or unreasonable. But Mr. Justice Chitty held, on a review of the whole Act, that if the Legislature had intended that "take" should mean "take possession," the word "possession" would have appeared in the Act; and that if there was any distinction between the two terms as used in the Act, the term "take" was stronger than the term "purchase." There was no ground, he said, in this instance for cutting down the intention of the Legislature; and he was of opinion that he must grant the injunction asked for. It had been said that the result of deciding against the Board would be to make the Act unworkable, but he thought it must be presumed that the consent of a Secretary of State would not be refused in a proper case. The injunction was granted.

The decision must be regarded as one of great importance. It is well known that the Metropolitan Board of Works found, after a short experience of the Act, that the requirements of Section 33 were very burdensome, and that they would seriously interfere with the carrying out of some of the projected improvements. Where new streets are run through poor and crowded districts the Board have found it practically impossible to provide suitable dwelling-houses in the neighbourhood for the persons who were to be displaced. Spaces for such dwelling-houses do not exist in such localities, and can only be made by removing the wretched houses already densely covering the ground. The Board have sought the sanction of the Home Secretary to their employment—for the provision of suitable houses—of sites at a distance from those appropriated, and have urged that, looking at the amount and cheapness of railway communication with the suburbs, this will not entail any real hardship on the labouring classes; but this request of the Board has not been favourably entertained. Another great impediment to the working of the Act arises out of the question of the utilisation, otherwise than in making the actual street, of the land acquired by the Board. If it is to be again covered with dwelling-houses for the working classes, this can only be at a very large pecuniary loss to the much-enduring ratepayers, for the sale or leasing of the land for such purpose would not produce anything near the sums paid by the Board in acquiring it. Mr. Justice Chitty's decision adds to their difficulties, and makes more prominent and pressing the settlement of the question whether the working classes can without any hardship be largely located in the suburbs of the metropolis. If

they cannot, or the Legislature insists that they cannot, then many of the projected street improvements of the metropolis, and many of the greatly needed sanitary improvements, must remain practically impossible.

THE WEEK.

TOPICS OF THE DAY.

THE usual fortnightly meeting of the Managers of the Metropolitan Asylums Board was held on Saturday last, at the office of the Board of Works, Spring-gardens. During the course of the proceedings a letter was read from Mr. B. W. Smith, of Hampstead, suggesting that as it had unfortunately become necessary to reopen the Hampstead Fever Hospital, it was desirable to distinguish the hospitals for infectious diseases under the charge of the Board by the points of the compass, north, south, east, and west, or by the postal districts in which they were situated, rather than by the names of the parishes. There was no doubt that the constant juxtaposition of the words "small-pox hospital" and "Hampstead" in the published reports of the Board and elsewhere, during previous epidemics, had kept up an alarm which for a long time had inflicted serious injury on the parish. If the four hospitals at Hampstead, Stockwell, Homerton, and Fulham were distinguished as the North, South, East, and West Hospitals respectively, he submitted that no possible inconvenience would arise, while a constant source of annoyance and irritation would be removed. On the motion of the Chairman this letter was referred to the General Purposes Committee. The comparative return of the number of fever patients in the several hospitals of the Managers showed that in the Stockwell Hospital there were 176 patients remaining under treatment; in the Homerton Fever Hospital, 192; in the Homerton Small-pox Hospital, 90 (fever patients); in the Fulham Hospital, 71; at Deptford, 121; and at Hampstead, 12; or a total of 671 fever patients, showing an increase in the total number remaining under treatment of 19. The return of small-pox patients showed a decrease of 9 cases for the past fortnight as compared with the previous period, the total being 203 as against 212.

A singular clause in the will of a deceased medical practitioner was recently made public in consequence of litigation referring to it in the High Court of Justice. The action was for the administration of the estate of Dr. Donald Fraser, late of Hampstead, and the clause ran as follows:—"By a former and still existing will, but which shall be destroyed immediately on the execution of this one, I left, as is well known to several friends, £10,000 to the Senatus Academicus of the University of Edinburgh, for the purpose of founding certain bursaries connected with my own profession; but, learning that the horrible and atrocious practice now prevails there which exists in the medical schools of London and elsewhere, of performing unspeakably cruel operations and experiments on living animals in teaching physiology, I now cancel the bequest, and benefit the Scottish Society for Prevention of Cruelty to Animals to a similar or greater extent, but which I would more gladly have given to my own *Alma Mater* and the University of my native city, could I have reconciled it with my feelings to encourage, however remotely, the barbarous practice of vivisection." The clause goes on to explain the testator's views as to the method to be adopted for the discovery of means for the treatment of disease other than by vivisection; but the moral teaching of the will has been somewhat marred by the decision of Mr. Justice Fry, who announced his opinion that there was not in that document sufficient to give the Scottish Society for Prevention of Cruelty to Animals the legacy of £10,000.

A telegram from Cairo, under date the 8th inst., reports that the entries into hospital in the force landed in Egypt from the time of the disembarkation at Ismailia to October 25 last, out of a total of 25,092 officers and men, were 462 wounded and 7038 sick. The returns of the Cairo hospitals for the 7th inst. showed that there were then 832 patients under treatment, chiefly suffering from enteric fever. The list of deaths from the 3rd to the 7th inst., both inclusive, shows fifteen, of which number nine died of enteric fever, two of dysentery, one of diarrhœa, and the remainder from other causes. The health of the Hussars, Artillery, and Dragoons is shown by Surgeon-General Hanbury's returns to have improved 50 per cent. in the last ten days. In less than a week nearly 500 officers and men will be absent on a trip to Malta or up the Nile for fifteen days, at the end of which they will return to duty. It is stated that Sir Archibald Alison has resolved to follow this system of treating the convalescents, instead of resorting to the expensive and unnecessary course of invaliding them to England. The general health of the army, according to the latest accounts, is decidedly improving.

A discussion has taken place in America recently on the danger to human life which must eventually ensue from exposed electric-light wires. Referring to the death of a workman which lately took place through the current from the wire of a Brush arc lamp, Mr. Edison is said to have confided to the reporter of a New York paper his opinion that such accidents would continue to increase with the multiplication of wires carrying powerful currents, till some dreadful accident occurred to arouse public indignation, and compel the placing of all such wires underground. In case of fire, particularly, the breaking of a great number of wires, which would be thrown down in inextricable confusion by the fall of a roof, might have serious results. Mr. Park Benjamin, a well-known scientific man, has called attention in New York to the fact that a stream of water from a hose-nozzle striking a broken arc-light wire, might easily serve to conduct the current through the body of the fireman who held the hose, with fatal consequences; while the cutting of such a wire with an axe, particularly if the handle of the axe were wet, might have a like effect.

The Local Board at Sandbach, near Crewe, have recently been threatened with dissolution for neglecting their duty. Some time ago the Local Government Board drew their attention to the fact that a supply of wholesome water was much needed for the town, and pointed out the grave responsibility which would rest upon the members should any evil consequences arise from their neglect. As the Sandbach Local Board took no notice of this warning, the Clerk has just received a communication from the central authority, stating that if the Board does not at once move in the matter it will become the duty of the Local Government Board to take steps for dissolving the Urban Authority of Sandbach, and resolving it into a rural sanitary authority.

On Saturday last, Mr. Betts, of Brent Lodge, Hanwell, was summoned before the Brentford magistrates, at the instance of the Thames Conservancy Board, for causing foul matter to flow into the river Brent within ten miles of the Thames. Mr. Payne, solicitor to the Thames Conservancy Board, called evidence showing that the defendant had been served with notice to cease polluting the stream, but that he had failed to comply with it, a sample of the water taken from the river near Brent Lodge on September 21 last being described by Mr. Wigner, the Board's analyst, as offensive and polluting liquid, quite unfit to run into the river Thames or any of its tributaries. In his defence, the defendant asserted that the sample of liquid that had been analysed did not come from his premises, but the Bench expressed a

contrary opinion, and fined him £5, and 10s. in respect of every day that the nuisance was allowed to continue.

Few Acts would appear to be more open to legal quibbles than that which was passed to protect our food from adulteration. At Hammersmith Police-court, recently, a dairyman of Hammersmith was summoned for refusing to sell milk to an inspector under the Food and Drugs Act, for the purpose of analysis. It appeared that the inspector went into defendant's shop, and asked defendant's wife for a pint of milk. She said she had none for sale. He pointed to a tin can on the counter, and drew her attention to the milk in it. When he told her he was an inspector, and wanted the milk for analysis, she said it was not for sale, as it had been ordered. Mr. Paget said the words in the Act were "exposed for sale or on sale." If the milk was ordered it was not exposed for sale or on sale. The defendant's wife was called as a witness, and repeated the statement that the milk in question was ordered. She also said that she could have removed the tin of milk referred to, as she was told the inspector was coming. Eventually Mr. Paget dismissed the summons; but there would seem to be something defective in the Act if it is open to any tradesman to assert that the article on his counter is "ordered," and therefore not "exposed for sale."

The Sanitary Commission at Alexandria have received a telegram, dated the 14th inst., from the Ottoman inspector at Mecca, stating that cholera had disappeared from that place since the 4th inst. Should this information prove correct, it will remove a grave source of apprehension.

THE AMBULANCE SYSTEM OF THE METROPOLITAN ASYLUMS BOARD.

Sir Edmund Currie brought forward, at the last meeting of the Managers of the Metropolitan Asylums Board, the report of the General Purposes Committee respecting the transfer of fever and small-pox patients from their homes to the asylums. The Managers had established an experimental ambulance-station, where the transfer of patients on an improved system had been made to a limited extent, but they had deferred extending this system pending the report of the Royal Commission on Hospitals for Contagious Diseases. Now, however, as the report of that Commission was in favour of the system adopted by the Managers, the Committee reported "that, it being evident that the resources of the ambulance-station of the Managers in George-street, London Fields, have been lately severely taxed, the removal of patients from the greater number of parishes and unions on the north of the Thames having been effected by means of the ambulances of the station, the Committee are of opinion that the establishment of similar stations in other districts of the metropolis should no longer be delayed." The Committee accordingly recommended that it should be an instruction to the committee of the several hospitals to submit to the Board at an early date plans and estimates for the establishment of ambulance-stations at those hospitals. The report was adopted, with only one dissentient voice.

LIGATURE OF THE EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM IN A CHILD.

There is at present under care, in the East London Hospital for Children, a boy aged twelve and a half years, the subject of a femoral aneurism high up in Scarpa's triangle, for which the external iliac artery was tied on Friday, the 10th inst. The boy has progressed favourably up to the present time: unfortunately, he has extensive heart and arterial disease. We shall look forward with interest to the further history of this very rare form of disease in childhood.

THE CANON MILLER MEMORIAL.

It will be recollected that soon after the death of the late Canon Miller, vicar of Greenwich, a movement was set on foot for the erection of a memorial to him in recognition of his having founded and popularised "Hospital Sunday" at Birmingham; and some time ago, also, a project was started for adding a hospital wing to the Royal Kent Dispensary. Finally, and happily, the two projects have been combined, on the understanding that a ward in the hospital wing of the Dispensary shall be called the "Miller Memorial Ward." We are glad to hear that by the exertions of Mr. W. Bristowe, of Greenwich, the honorary secretary, between £2000 and £3000 has already been paid or promised towards the £5000 that is wanted for the erection of the new hospital, which will, we doubt not, be very useful. It is sometimes stated that Canon Miller originated Hospital Sunday in London, and this error slipped into our "Notes and Queries" columns last week; but the credit—whatever that may be—of instituting the London "Hospital Sunday Fund" belongs to the editor of our contemporary, the *Lancet*, though it is true that Canon Miller was among its earliest and most active supporters.

THE MEDICAL EXAMINATIONS AT THE ROYAL UNIVERSITY OF IRELAND.

At a meeting of the Senate of the University, held on Thursday, November 9, the following alterations as to the course for medical examinations were enacted:—1. As to certificates of acquaintance with mental diseases, candidates will not be required to produce certificates of having attended courses of lectures on those diseases; but every candidate for the M.B. degree will be required, henceforth, to produce a certificate of attendance for three months in a recognised lunatic asylum where clinical instruction is given. 2. After the year 1883 all candidates for the degree of M.B. shall be required to exhibit proficiency in the use of the ophthalmoscope and laryngoscope. 3. After the year 1883 all candidates for the degree of M.Ch. shall be required to present a certificate of having attended a three months' course of lectures on operative surgery. 4. After the year 1883 all candidates for the degree of M.Ch. shall be required to pass a special written examination.

ENTOZOA AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The meeting of this Society on Tuesday last was one of unusual interest, on account of an exhibition of various entozoa which infest the human species. Dr. Cobbold exhibited specimens of the Bilharzia hæmatobia, the eggs, and living embryos hatching out. These specimens were highly instructive as showing the various stages of the distoma; they were procured from the urine of patients at present under his care. Also the Distoma heterophyes—a very rare form of Egyptian fluke, sent to him by its discover, Bilharz. It was procured from the intestine of an Arab boy who had died of dysentery (it was not contended that the fluke caused the dysentery). Also the Homalomyia scalaris, another form of fluke from the human intestine—a dreadful-looking beast, not unlike a pediculus. Seen through the polariscope, however, we must admit it was a beautiful *object for the microscope*. He also showed many other forms of fluke, as found in elephants, giraffes, and other animals. Dr. Stephen Mackenzie showed specimens of the Filaria sanguinis hominis, from the case which we reported some months ago. Dr. Bastian showed embryos of the Guinea-worm, and the Trichina spiralis from the muscles of a boar. Dr. Crocker also showed the Bilharzia hæmatobia from the urine of a boy suffering from intermittent hæmaturia. Mr. A. P. Thomas, of Oxford,

besides giving a lucid exposition of his researches concerning the life-history of the liver-fluke (which we hope to publish next week in abstract), showed microscopic specimens of the fluke in its various stages. The intermediary host, a small snail (Limnæus truncatulatus) was shown; also a Redia (one of the nurse forms of the fluke), containing Cercariæ and germs of Cercariæ. The all-important discovery of this intermediary host was the reward of extraordinary labour and patience; for Mr. Thomas's researches extended over two or three years. It was incidentally mentioned that the annual mortality of sheep from "the rot" was about 1,000,000, and that in some years it had been as high as 3,000,000. Mr. Thomas, besides having discovered the mode in which this terrible disease is conveyed, found out that salt is the cure for it. A salt solution not stronger than ½ per cent. is fatal to the embryo fluke; and sheep to which corn mixed with a small portion of salt is given are proof against the fluke ova. A paper by the late Dr. Vasey Lyle, on the Endemic Hæmaturia of the South-east Coast of Africa, was the means of bringing the subject forward. It was with much regret that we learnt the death of the author of this interesting communication; and, what is not a little curious in one who had made parasitic disease his especial study, that it was due to hydatid disease of the liver. A full report of the discussion will appear in our next issue.

AN INCIDENT IN THE LIFE-HISTORY OF NEW GROWTHS.

Dr. Obtulowitsch (*Deutsche Med. Zeitung*, No. 42) narrates the following interesting circumstance:—A peasant, forty-three years old, suffering from epithelioma of the lower lip, contracted typhus whilst awaiting operation; on recovery from the acute illness the cancer was found to have sloughed off, leaving behind a slowly healing ulcer, which eventually sprouted again into a cancerous nodule. This occurrence appears of interest because of all parts of the body the lip is by no means the least supplied with vessels, and it is curious that we should have gangrene of a new growth, the normal tissues remaining sound. We are not inclined to pass the fact over as a trivial affair; it recalls the tendency which new growths have to dwindle and decay with the increasing age of the sufferer. As the body decays it seems to have less energy left for parasitic growths, if our readers will allow that term for cancer. Speaking metaphorically, the body has as much as it can do to look after itself. So with the above case, if any part of the body is to die it must be the abnormal material, not the proper protoplasm of the body.

DEATH OF MR. TOMPSETT, M.R.C.S., L.S.A.

We regret to learn of the sudden death, by drowning, of Mr. James Tompsett, of Spanish Town, Jamaica, on the 15th of last month. It appears that Mr. Tompsett went out, early in the morning, with a friend, Mr. Douet, and a servant-boy, to shoot wild ducks along the Irrigation Canal. Some birds were shot, and having fallen into the Canal, the boy went in to get them. Mr. Douet observing that he seemed in danger of drowning, jumped into the water and swam to him; but as soon as he reached him he was himself evidently in some difficulty. Mr. Tompsett then tried to swim to their aid; but, though he is said to have been an excellent swimmer, found himself in danger through entanglement in weeds. Some persons put off in a boat and succeeded in rescuing Mr. Douet and the boy, but were not in time to save Mr. Tompsett. It is stated that his body was found in an upright position, with the right leg bent and free from the weeds, but with the arms crossed over and firmly bound to the chest by weeds, quantities of which had to be cut away before the body could be released. Mr. Tompsett, who was Government Medical Officer, became a Member of the Royal College of Surgeons of England in 1867. He was highly esteemed as a medical man and a friend in Spanish Town and Kingston, and will be greatly lamented by a large circle of patients and friends. He had made some contributions to medical journals—the latest, we believe, being a paper on "The Use of Warburg's Tincture," which appeared in the *Practitioner* in 1877. He died nobly in attempting to save others.

TYPHOID FEVER IN PARIS.

The *Gazette Médicale* furnishes the following report of the progress of the epidemic of typhoid fever in Paris during the week ending November 8:—The number of patients in the hospitals suffering from typhoid fever on the morning of November 2 was 1967, and on the morning of the 9th it had decreased to 1756—a difference of 211. During the week 345 new cases were admitted, 490 were discharged as cured, and 66 deaths occurred. During the seven days the mean of the admissions was 49·3 per diem, and that of the deaths 9·43—being 6 per diem fewer for the admissions, and 0·73 more for deaths; showing a slight decrease of admissions and a slight increase of deaths as regards the Paris hospitals. During the week there have been 102 burials of subjects of typhoid fever, or a mean of 14·57 per diem, this being a smaller number than that of the preceding week.

THE INFLUENCE OF VESICO-VAGINAL FISTULA UPON THE GENITAL FUNCTION IN WOMEN.

Some correspondence, published not long ago in a contemporary, leads us to think the researches of Dr. Kroner, Assistant-Physician to the Gynæcological Clinic at Breslau, into the above subject may not be without interest to our readers. They have been published in a recent number of the *Archiv für Gynäkologie*. First, as to menstruation: out of 60 cases of urinary fistulæ of different kinds which he has collected, in only 14 was menstruation regular; in 38 there was complete amenorrhœa, and in the remainder the flow was scanty and recurred only after unduly prolonged intervals. Dr. Kroner considers the cause of this deficiency, and discusses the part probably played by changes in the uterus and its adnexa respectively. To us it seems sufficiently accounted for by the debility due to the pain, discomfort, and depression produced by so exceedingly unpleasant an infirmity, as well as by the inflammatory diseases by which difficult labours, such as lead to vesico-vaginal fistula, are so often followed. Next, as to conception: out of the 60 cases just referred to, in 6 conception took place while the patient was still suffering from the fistula—not a large proportion. To these Dr. Kroner has been able to add 31 others, as to whose menstruation he could not get particulars. Of these 2 became twice pregnant, 3 became three times pregnant, and 1 had a large family, after the occurrence of the fistula. As to the course of pregnancy and labour: in 23 there was miscarriage, or labour came on prematurely, the cases being pretty equally distributed, as to the time of delivery, between the third and the ninth months; and in 9 the pregnancy went on to term. Information is defective on this point in the other cases. Dr. Kroner, we think rightly, attributes this frequency of premature delivery to the frequent association of pelvic adhesions with the fistulous condition. In 3 cases the fistula healed spontaneously after delivery. Two questions arise with regard to pregnancy complicated with vesico-vaginal fistula:—1. Should premature labour be induced? Dr. Kroner thinks not. 2. Should the fistula be operated upon during the pregnancy? He sees no contra-

indication to this course, unless the fistula be very high up, or the condition of parts such that the uterus has to be strongly pulled down, or made to take part in filling the fistula. The operation does not necessarily lead to abortion or premature labour. Lastly, the influence of pregnancy and labour upon fistulæ that have been cured: about this it is impossible to state any general conclusion, for this reason—that the causes, such as contracted pelvis, etc., which have once led to the formation of fistula are apt to do so again.

THE ROYAL MEDICAL SOCIETY, EDINBURGH.

THE 145th session of the Royal Medical Society of Edinburgh was opened on the evening of the 4th inst. with an address by Professor Grainger Stewart. After some words of encouragement and advice, Professor Stewart pointed out the advantages which Edinburgh affords for the study of medicine. He referred specially to the University and Extra-mural School; the Royal Infirmary, the excellent clinical teaching in which, he said, they owed to the late Professor Hughes Bennett; and, lastly, to the Royal Medical Society itself, which he believed supplied to some extent the want of social intercourse, which was one of the defects of the Scottish University system.

YELLOW FEVER IN THE UNITED STATES.

THE yellow fever which has prevailed at Brownsville (Texas) is reported by the United States Marine Hospital Service to have almost disappeared, 12 cases and 2 deaths only having been registered for the week ending October 7. The disease is now limited to a few mild cases inside the Arroyo cordon, but is reported to continue with great severity in the Mexican towns and ranches bordering on the Rio Grande River. The infected districts are said to be prevented spreading the disease in Texas by an efficient cordon, extending from Brownsville to Laredo. In Pensacola (Florida) the total number of cases that have occurred from August 28 to October 23 is 1958, with 161 deaths; 278 of these, with 21 deaths, having taken place between October 17 and 23, inclusive. An elaborate investigation of the origin of the epidemic has been entrusted to Dr. William Martin, U.S. Navy.

ZYMOTIC DISEASE IN THE EAST OF LONDON.

ZYMOTIC diseases—especially measles and scarlet fever—seem to be prevalent in the East-end of London. We learn from the Resident Medical Officer (Mr. Battams) that many cases apply among the out-patients at the Children's Hospital, Shadwell, suffering from the sequelæ of these diseases. Last week four cases of diphtheria complicated with or following on measles were admitted into the Hospital within twelve hours of each other, three of which required immediate tracheotomy, while the fourth case had to be operated on some hours after admission. The cases were all of a severe asthenic type. One of the patients had had measles a fortnight previously; some very tough membrane was got out of the trachea. A second case developed an irregular form of measles two days after admission. A third case had the glands of the neck very much enlarged, with patches of exudation on the lips and in the posterior nares. This child was *in extremis* when admitted. The operation was done without chloroform, the child being passive. Owing to the swelling of the neck the operation was one of great difficulty. The fourth case was a girl aged four years. She developed measles three days after admission. Only one small piece of membrane was got up from this case, and there was no glandular enlargement. The temperature for a while was high. This patient is doing very well, notwithstanding the complication of measles. The other three cases died at varying periods after the operation, all having been temporarily relieved. Mr. Battams, as in many former cases, used glycerine of borax as the local application. It is applied with a brush or feather to the nostrils and pharynx, as well as to the trachea; owing to its sweet taste, probably, the children make very little resistance to its use. It has seemed to be of great service in softening and detaching the exudation. We hear also that three other cases of diphtheria complicating measles occurred in the same family two or three months ago. Measles was then very prevalent in the street. It seems to us that the question of infectious disease is becoming year by year one of greater importance, and that active legislation of some kind will soon be imperative. The houses in the East of London are all very crowded, while the Peabody and similar buildings, by massing large numbers together under one roof, increase the risk of infection whenever zymotic disease once breaks out.

ON TRISMUS FROM CEREBRAL LESION.

M. LÉPINE (*Revue de Médecine*, October) narrates the following case as a contribution to our knowledge of cortical localisation. The patient, a woman aged sixty-five, was brought to the hospital in a state of unconsciousness after an apoplectic seizure. After she had recovered consciousness she did not speak, the lips remained somewhat apart, the jaws were firmly clenched and could not be separated even by a considerable amount of force. There was no paralysis of the face or lips, no strabismus, the pupils were equal and sensitive, the movements of the eyes and eyelids were natural. There was flaccid hemiplegia of the left arm and leg, more complete in the arm than the leg. There was no loss of cutaneous sensibility. She died on the third day, the trismus having persisted almost to the last. On examination, a recent clot, about the size of a pigeon's egg, was found on the right side just beneath the grey matter of the island of Reil and the foot of the ascending frontal convolution; the hæmorrhage had invaded and destroyed the *avant-mur*, external capsule, and part of the outermost segment of the lenticular nucleus. There was also a yellowish cicatrix occupying the corresponding position in the left hemisphere, but somewhat smaller, and not extending into the *avant-mur*, being confined to the external capsule and lenticular nucleus. M. Lépine points out that the situation of this recent hæmorrhage corresponds exactly to the spot determined by Ferrier's experiments to be the centre for the movements of the muscles of mastication.

TRANSLATIONS OF ORIGINAL PAPERS ON BIOLOGICAL SUBJECTS.

OUR contemporary, *Nature*, states that the delegates of the Clarendon Press have decided to issue a series of translations of important original papers in foreign languages on biological subjects, and have committed the editing of these memoirs to Professor Michael Foster, Professor Burdon-Sanderson, and Dr. Pye-Smith. It is intended to commence the series with a volume of some 750 pages, to be divided into three parts. The first part is to comprise Professor Heidenhain's treatise on "The Physiology of the Process of Secretion"; the second, a series of four papers by Goltz on "The Functions of the Brain," and a memoir by N. Bubnoff and Professor Heidenhain on "Excitatory and Inhibitory Processes in the Motor Centres of the Brain"; and the third a series of memoirs by Engelmann on "The Structure and Physiology of the Elementary Contractile Tissues." Each part is to be complete in itself, and to be published separately.

THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-fourth week of 1882, terminating November 2, was 995 (521 males and 474 females), and among these there were from typhoid fever 125, smallpox 4, measles 7, scarlatina 1, pertussis 4, diphtheria and croup 31, erysipelas 2, and puerperal infections 3. There were also 39 from acute and tubercular meningitis, 184 from phthisis, 25 from acute bronchitis, 41 from pneumonia, 75 from infantile athrepsia (27 of the infants having been wholly or partially suckled), and 33 violent deaths (22 males and 11 females). The number of deaths registered this week is lower than that of any of the preceding four weeks, and those from typhoid fever have diminished from 173 last week to 125. The number of admissions for the week was 428 instead of 406 last week. In spite of this slight increase, the number of patients under treatment, which was 2175 at the end of last week, is only 2085 at the end of the present one. The births for the week amounted to 977, viz., 496 males (381 legitimate and 115 illegitimate) and 481 females (337 legitimate and 144 illegitimate): 101 infants were either born dead or died within twenty-four hours, viz., 56 males (34 legitimate and 22 illegitimate) and 45 females (27 legitimate and 13 illegitimate). [It was forgotten to be recorded last week that for the week ending October 26 there were 1112 births, viz., 572 males and 540 females.]

SIR THOMAS WATSON, BART.

OUR account of Sir Thomas Watson's state on Thursday, the 16th, was that he was still living amongst us, though he had been steadily and gradually losing ground since our previous report. He had become quite helpless; the tongue showed a much lowered condition; the pulse continued at about 80, but was very weak and irregular; the breathing also had become irregular. Sir Thomas had some difficulty in speaking and in swallowing, but was able still to take a fair amount of milk with some stimulant. He takes little notice of what goes on about him, but, when spoken to, understands what is said. This condition is of course simply a gentle sinking away; but the bodily temperature is fairly maintained, and Sir Thomas seems from that, and other important points, to possess still a considerable amount of vitality.

THE ROYAL UNIVERSITY OF IRELAND.

A PUBLIC meeting of the University, for the conferring of degrees, was held on Wednesday, November 8, in the large hall of the University Buildings, Earlsfort-terrace, Dublin. The Duke of Abercorn, as Chancellor of the University, presided, and the Lord Lieutenant and Countess Spencer honoured the occasion with their presence. Lord O'Hagan, Lord Plunket, the Earl of Belmore, and several other noblemen, were also present, and the assembly was numerous as well as brilliant. Addresses were delivered by the Duke of Abercorn as Chancellor, and by Earl Spencer in responding to a vote of thanks. His Grace the Chancellor mentioned that the statistics of the annual examinations, which had been recently held, showed the entire number of candidates to have been 1515—viz., 11 in the Faculty of Law, 519 in the Faculty of Medicine, 350 in the Faculty of Arts, 27 in the School of Engineering, and 608 for Matriculation. Of that number there have passed—in the Faculty of Law, 10; in the Faculty of Medicine, 256; in the Faculty of Arts, 251; in the School of Engineering, 17; and for Matriculation, 487. Honours have been awarded to four of the candidates in the Faculty of Law, to 13 in the Faculty of Medicine, to 79 in the Faculty of Arts, to 4 in the School of Engineering, and to 82 at the Matriculation. To the most distinguished answerers at the various examinations also a large number of valuable prizes and exhibitions, ranging from £50 down to £12 each, had been awarded. The degrees were then conferred and prizes awarded to the *alumni*(a) whose names have been already published, the first to take degrees in the new University being Dr. J. Creed Meredith and Dr. D. Basil Dunne, its secretaries, who were, by special grace, awarded the honorary degree of LL.D.

IODOFORMANIA: IODOFORM IN OCULAR DISEASES.

As a contribution to the subject of iodoformania, to which we alluded in a recent issue, we append the following conflicting experiences, taken from the *Wiener Med. Woch.* (No. 41). Iodoform, as finely powdered as calomel, and also in the form of an ointment (one part iodoform to ten vaseline), has been used in Leber's clinic. The healthy conjunctiva tolerates both the ointment and powder. An eye that is slightly inflamed only endures the preparations in moderate quantity, whilst free application increases inflammation. Some eyes cannot stand iodoform at all, though this is rare. Iodoform is used with the greatest benefit in recent wounds of the globe or lids, whether accidental or from operation. In the various forms of ophthalmia it is valueless. In association with boracic lint dressing the preparation does good in cases of spreading ulceration of the cornea. Another benefit conferred by iodoform is relief from pain. Grossmann got good results from the use of iodoform only in profuse suppurations—in gonorrhœal ophthalmia and ophthalmia neonatorum (P. Smith confirms this observation). Dr. Lange, of St. Petersburg, on the contrary, treated six cases with no good, but rather harm. The chief danger resulted in cases of granular lids, which became much more exuberant, and, filling up the conjunctival sac, endangered the nutrition of the cornea. Lange cautions against its use in ophthalmia neonatorum, and Hirschberg teaches that there is no reason whatever to set aside the use of the trustworthy lapis divinus. Fischer believes that iodoform is tolerated well in most ocular diseases; it is very effectual in cases of scrofulous pannus cornee: it is an excellent antiseptic; it promotes granulation and rapid regeneration of corneal epithelium; it is of value in lachrymal abscess with discharge.

A WARNING TO VEGETARIANS.

THE address of Mr. Thomas last Tuesday evening at the meeting of the Royal Medico-Chirurgical Society, on the life-history of the liver-fluke, as interesting as it was instructive, wound up with a word of advice, viz., that we should abstain from eating watercress. We do not suppose that in an assemblage of men, all more or less well versed in physiology, any vegetarians were present; if there were such, we do not envy their feelings on hearing this warning, or on listening immediately afterwards to the remarkable case narrated by Dr. George Harley, so strongly confirming the view that eating watercress might be attended with danger. However, it occurs to us that, seeing what a powerful agent we have in salt, if the watercress were to be well rinsed out in a moderately strong solution of salt before being washed in fresh water, or instead of it, the embryos and ova would certainly, and their intermediary host in all probability, be destroyed.

LIGATURE OF THE COMMON CAROTID.

AT the meeting of the Society of Physicians in Vienna on October 20, Professor Weinlechner showed a man, aged fifty years, on whom he had successfully tied the left common carotid artery for bleeding into an abscess in the left tonsil.

(a) For the names of the successful candidates for degrees in the Faculty of Medicine, see the *Medical Times and Gazette* of last week, page 556.

The abscess was the result of repeated injections of an ethereal solution of iodoform into a spindle-celled sarcoma, which had grown in the tonsil and neighbouring lymphatic glands. Sixteen injections had been made into the new growth from the mouth, and fourteen from the neck. The solution used was of the strength of one part of iodoform to ten of ether; of this two to three minims were employed each time. This method of treating the sarcoma was practised because the patient had determined that no operation for extirpation should be performed. This case is of interest when taken side by side with a somewhat similar one reported at a recent meeting of the Clinical Society of London, where Mr. Pepper had secured the common carotid for hæmorrhage into an abscess in the throat, the result of scarlatina. The Vienna patient also recovered completely from the operation. It is not stated whether antiseptic dressings were employed. It would appear that the use of antiseptics is a point of great importance in bringing about a successful result, the liability to secondary wound-diseases, especially profuse suppuration, and to secondary hæmorrhage being greatly lessened. In this regard we may recall to our readers a statement made by Weljaminow, which we published at the end of an annotation on the present subject in our issue of October 28, where it is reported that twenty cases treated antiseptically had ended successfully.

PRESIDENT GARFIELD'S PHYSICIANS.

THE fees of the physicians of the late President of the United States, reported so long ago to have been paid, still, it seems (*Phil. Med. News*, October 21), have to go before an audit committee of Congress for examination and certification. The following claims have been "filed":—Dr. D. W. Bliss, $25,000; Dr. D. Hayes Agnew, $14,700; Dr. Robert Reyburn, $10,800; Dr. D. S. Lamb, for examination of the body at Elberton, New Jersey, $1000. No claim has been filed by Dr. Frank H. Hamilton.

THE DIAGNOSIS AND THE DISAPPEARANCE OF HEPATIC CIRRHOSIS.

DR. P. K. PEL, in an article in the lately published *Nederlandsch Tijdschrift voor Geneeskunde*, offers some interesting remarks, illustrated by cases, on the diagnosis and the occasional disappearance, real or apparent, of hepatic cirrhosis. After quoting the opinion of Andral as to the obscurity of the symptoms of this disease, Dr. Pel proceeds to observe that the diagnosis rests principally on two circumstances—namely, the phenomena of congestion in the region of the vena portæ, and the presence of a known etiological factor, the use of alcohol. When these two factors coincide there is little difficulty in concluding that hepatic cirrhosis is the cause of the morbid conditions observed; but there are some cases of the disease in which the signs of congestion in the region of the vena portæ are entirely absent, or at least escape clinical observation; and there are also cases where no known etiological condition can be discovered. Again, it is sometimes found that anatomical and pathological investigation has brought to light the existence of liver disease, of which the patient has been unconscious during life; and Dr. Pel adduces a case of this kind. A patient came under his care, suffering from pleuro-pneumonia; he had previously enjoyed good health. After the disease had terminated fatally, a post-mortem examination was made, when it was discovered that, besides empyema, there was an advanced condition of hepatic cirrhosis, with enormous development of the œsophageal, coronary, and diaphragmatic veins. The patient declared, and his friends confirmed the statement, that he had never indulged too freely in the use of alcohol. In another case treated by Dr. Pel the patient was suffering from pulmonary phthisis; the abdomen was very painful and distended with fluid and gas, and there was obstinate diarrhœa, but there were no prominent veins on the surface of the abdomen, and the liver and spleen could not be defined. At the post-mortem examination there was found extensive tuberculosis of the lungs and intestines, but there was also typical hepatic cirrhosis. Again, there are cases, though they are rare, of what may be called idiopathic ascites, which may give rise to great diagnostic difficulties. These cases are probably caused by disturbances of the circulation in the vena portæ or its branches, and inflammatory conditions of the peritoneum may be present; and they generally occur in girls at the period of puberty, sometimes in connexion with irregularities of menstruation. The most interesting case, however, recorded by Dr. Pel is one where the clinical phenomena of hepatic cirrhosis were well marked in a man addicted to drink, aged forty-nine. In this instance the disease appeared to be in the last stage, and the whole condition of the patient was unfavourable, but nevertheless there was rapid improvement, and under abundant diuresis the congestive symptoms disappeared in fourteen days. The subject of the case was a sailor, who had been ill for three months, and the illness began with symptoms of indigestion and irregular state of the bowels, which were sometimes constipated and sometimes too loose; the abdomen soon began to swell, and the legs were œdematous; and from increasing weakness and further swelling of the abdomen he applied for admission into the hospital. His condition for some days was very critical, but after an abundant diuresis a rapid improvement was manifested, the appetite returned, and the dropsical condition of the abdomen and legs disappeared. Against the advice of the physicians, the patient left the hospital, and he was heard of afterwards as having engaged himself as a sailor in a steam-vessel trading to the East Indies. These three cases sufficiently prove how difficult the diagnosis of hepatic cirrhosis may be during life. In the first case no suspicion of the disease existed, and in the second the symptoms led to error from the great pain in the abdomen and the coincidence of extensive tuberculosis of the lungs and intestines. The third case, notwithstanding long and careful observation, also presented great difficulties dependent upon the relatively successful termination of the disease. It shows that a great accumulation of fluid in the abdomen, together with congestion in the vena portæ, although the case be one of extreme danger, may disappear spontaneously and in a short time under an improved condition of the general health.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE usual quarterly meeting of this Association was held at Bethlem Hospital on Wednesday evening, November 8. In the absence of the President, the chair was taken by Dr. D. Hack Tuke. Dr. Mercier read a paper on the Conditions of Life affecting Insanity, and Dr. Julius Mickle communicated some particulars on Traumatic General Paralysis. Interesting discussions followed both of these papers, and, owing to the lateness of the hour, a paper by Dr. Fletcher Beach on Atrophy of the Brain was taken as read.

PROFESSOR GRAHAM BELL'S INDUCTION PROBE.

AT a recent meeting of the American Association for the Advancement of Science, Professor Graham Bell delivered an address on the electrical experiments to determine the location of the bullet in the body of the late President Garfield, and described a completely successful form of induction balance for the detection of metallic masses in the human body. The lecturer recalled the experiments of last year

on the wounded President. The results obtained were that the telephone gave a peculiar spluttering sound, which, on the induction balance being passed over the person of the patient, suddenly increased in loudness when it rested on a particular spot. The apparatus was sensitive to the presence of a leaden bullet five inches from it. An area of sound was thus marked out, and the experimenters concluded that the bullet was within it, but subsequent examination proved this to be incorrect. In fact, the area of sound was produced by a steel spring mattress under the President's bed, which had been overlooked by the attendant physicians. The apparatus has been subsequently improved by embedding the two movable coils in paraffin, and adjusting them to silence by a micrometer screw. With this instrument a successful experiment was performed on the person of Colonel Clayton, who had for several years suffered from the presence of an Enfield bullet; and now the exact position of a bullet could, according to Professor Bell, be accurately told in any part of the human body.

THE TREATMENT OF SOME CHRONIC GASTRIC DISORDERS.

M. Broca, in a series of articles (*Le Progrès Medical*, 39-42), strongly advocates, in ulcers of the stomach and chronic gastritis from various causes, the systematic washing-out of the stomach and artificial feeding. In washing out the stomach there are two indications to fulfil—one, to empty it of its contents, whatever they may be; and the other, to treat the diseased mucous membrane with medicated solutions. He advocates the use of the siphon tube, on the ground that its manipulation is so easy that in a very short time the patient can learn to wash his stomach out himself. The washing over, the patient should be fed before the tube is withdrawn, powdered meat, raw eggs, milk, or broth being the most suitable food. He lays great stress on the advantages of over-feeding the patient, and mentions 600 grammes of raw meat, a dozen eggs, and three litres of milk as a daily allowance that may easily be exceeded. It is always necessary to commence gradually, until it is ascertained that the patient can digest milk and eggs well. Should pain come on some hours after the meal, it is advisable to empty the stomach by means of the tube. The cure is permanent if the patients only take proper care of themselves afterwards. He thinks that this mode of treatment might with advantage be extended to other cases than purely stomach disorders; he suggests it, for instance, in advanced phthisis.

It is reported in some of our daily contemporaries that the Queen has been pleased to confer the honour of knighthood upon Mr. Oscar Clayton, F.R.C.S., in consideration of his services to the Prince of Wales.

Mr. George Thompson, jun., of Pitmedden, has given £6000 to the University of Aberdeen for the foundation of medical bursaries in the Medical Faculty. Mr. Thompson a few weeks ago handed over the sum of £1000 for distribution among the most prominent of the Aberdeen charities.

Mr. R. Clement Lucas, B.S. Lond., F.R.C.S., has been appointed Surgeon to In-patients at the Evelina Hospital for Sick Children, in the place of Mr. W. Morrant Baker, F.R.C.S., who has retired.

Mr. A. Pearce Gould, M.B. and M.S. Lond., F.R.C.S., has been elected Assistant-Surgeon to the Middlesex Hospital, in place of the late Mr. R. W. Lyell.

Sir Joseph Fayrer, K.C.S.I., M.D., has been elected a Governor of Guy's Hospital.

The need of an official inspection and examination of tramway-cars has been demonstrated by the following report of Dr. Russell, the Medical Officer of Health for Glasgow:—Of 212 cars examined, 123 were found in good condition, and the remainder were rejected on account of defective ventilation, etc. This sanitary inspection was made in view of the renewal of the licences by the police authorities.

Scarlet fever is still active in Accrington, though the epidemic has diminished in extent and severity. At the meeting of the Town Council, on Thursday last week, it was reported that during October there were thirty-three deaths from the disease, and 156 fresh cases were reported. The number of outbreaks had decreased since the schools had been closed. Two schools reopened in defiance of the order of the local authorities had been again closed. Dr. Harrison, the Medical Officer of Health, has, however, unhappily had to report a serious outbreak of scarlet fever at Haslingden. Five deaths there from the disease had already occurred.

BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

The arrangements for this banquet of welcome have now been very nearly completed. It is not yet possible to speak with certainty as to the number of guests who will be entertained, but some seventy or eighty will be present, among whom will be Earl Morley, Sir Garnet Wolseley, Sir H. Macpherson, Sir John Adye, Sir W. R. Mends, Sir Owen Lanyon, the Director-General of the Army Medical Department, the Director-General of the Medical Department of the Navy, and Mr. T. H. Huxley. We will only add the warning that any members of the profession who wish to be among the host on this occasion, and have not yet applied for tickets, must lose no time in making application to Mr. Eastes, 69, Connaught-street, Hyde-park-square, London. The following is the second list of subscriptions to the invitation fund:—

	£	s.	d.		£	s.	d.
Dr. W. Aitken	1	1	0	Surgeon-General T. Longmore, C.B.	1	1	0
Dr. M. M. de Bartolomé ...	1	1	0				
Dr. J. Crichton Browne ...	1	1	0	Surgeon-General W. C. Maclean, C.B....	1	1	0
Mr. W. Calge	1	1	0				
Dr. Alfred Carpenter ...	1	1	0	Surgeon-General M. F. Mainfold	1	1	0
Dr. C. Chadwick	2	2	0				
Surg.-Major T. B. Christie	1	1	0	Dr. W. Marcet	2	2	0
Surgeon-Major F. S. B. De Chaumont	1	1	0	Surgeon A. B. E. Myers ...	1	1	0
				Mr. O. Pemberton	2	2	0
Dr. J. Langdon Down ...	2	2	0	Mr. Thomas Smith	2	2	0
Dr. R. Farquharson, M.P.	1	1	0	Mr. E. Tegart	1	1	0
Mr. W. H. Flower	1	1	0	Mr. Eugin Thornton ...	1	1	0
Dr. E. Long Fox	1	1	0	Mr. Edgcombe Venning ...	2	2	0
Mr. F. J. Gant	1	1	0	Dr. Edward Waters... ...	1	1	0
Mr. Reginald Harrison ...	2	2	0	Mr. W. Spencer Watson ...	1	1	0
Dr. Edwin Humby	1	1	0	Mr. C. G. Wheelhouse ...	2	2	0
Dr. T. Ligertwood	1	1	0	Dr. W. Wood	1	1	0

The Anti-vivisectionists in Paris.—Although it will probably be long before the investigators in experimental physiology—the so-called vivisectionists—are placed in France in the ridiculous position which they now hold in our own country, some interference will possibly before long take place, as a strong public feeling is rising against some of their procedures, which certainly cannot be justified. The last example we have noted of this, which is referred to in the *Revue Méd.*, October 28, consisted in a popular lecture delivered at the Trocadéro by Dr. Laborde, the Chef des Travaux du Laboratoire Physiologique de la Faculté. The object of the lecturer was to illustrate the mechanism of cardiac syncope and asphyxia, and in order to render it more comprehensible he operated upon living frogs, in such a manner, however, that the public were enabled to verify the results without actually witnessing the details of the experiments. Nevertheless there was aroused an indignant remonstrance on the part of some of the auditory, and the matter has since become one of newspaper controversy. Anything more injudicious than such a procedure on the part of Dr Laborde, or one more likely to prove detrimental to the cause of science, one can hardly conceive.

PARLIAMENTARY MATTERS.

HOUSE OF COMMONS—THURSDAY, NOVEMBER 9.

The Army Medical Department.—Sir E. Fletcher having asked the Secretary of State for War whether he would consider the advisability of reverting to the old system of appointing regimental surgeons and assistant-surgeons to every regiment in Her Majesty's service,—Mr. Childers replied that the present arrangement of the Medical Service, commonly called the general, as opposed to the regimental system, was finally decided by the late Government when Lord Cranbrook was Secretary of State for War, so recently as in 1878. Lord Cranbrook's words were: "The regimental system has gone, and it would be impossible to recall it." If that system should appear to me faulty, I shall not hesitate to reform it; but at this moment I have no intention to restore arrangements so recently condemned.

Official Medical Assistance in Ireland.—Mr. Healy asked the Chief Secretary for Ireland whether it was usual for the Government to send experienced surgeons to persons wounded in Ireland by the police or from agrarian causes.—Mr. Trevelyan said in several cases during the last two or three years experienced surgeons had been employed by the Irish Government to attend upon persons in indigent circumstances injured by the police or from agrarian causes, and their fees had been paid out of the vote for law charges. He was informed that in all the cases the charges had been for moderate amounts.

MONDAY, 13TH.

Alleged Danger of Famine: Ireland.—In reply to the question whether the attention of the Chief Secretary for Ireland had been directed to a resolution passed by the Poor-law Guardians of Dromore West, County Sligo, speaking of the imminent danger of famine in the West of Ireland,—Mr. Trevelyan stated that the attention of the Local Government Board had been drawn to the resolution referred to, and they had directed one of their inspectors to proceed at once to Dromore West Union and make inquiries, and report as to the statements contained in the resolution.

Syphilised Vaccination.—Mr. Hopwood again put a question to the President of the Local Government Board regarding the alleged inoculation of French soldiers with syphilis by means of vaccination.—Mr. Dodson again said that the information he had obtained on the subject was so incomplete that it threw no further light on the subject. But he was as anxious as anyone could be to learn everything possible about it, and had therefore again requested the Foreign Office to endeavour to ascertain whether the French Government had made any further inquiry into the matter.

THE GLASGOW ROYAL INFIRMARY.—On Thursday, last week, Dr. Thomas, who has been for fifteen years Medical Superintendent of the Glasgow Royal Infirmary, received a present of a large and very handsome silver tray, having a suitable inscription, from the nurses of the Infirmary, in proof of their great regard for him, their high sense of the efficient manner in which his numerous duties have been performed, and as a token of their appreciation of the kindness with which he always regarded their interests and comfort.

DISPENSING OF MUSK.—M. Vigier, a *pharmacien*, writing to the *Gaz. Hebdom.*, October 27, states that musk is a most difficult substance to pulverise in the ordinary way, by which a good deal of it is wasted; and this is a consideration when it costs 3 fr. per drachm. But by the following procedure it may be perfectly powdered: Take musk 1 part, alcohol at 95° 4 parts, syrup 30 parts, and distilled water 100 parts. Triturate the musk with the alcohol in a marble mortar into an impalpable powder, which is done in two or three minutes, and add the water gradually, and then the syrup. A mixture is thus produced like all those holding medicinal powders in suspension, such as bismuth, etc.; but musk, owing to its slight density, is much easier held in suspension than these bodies, and does not require the addition of gum as they do. A slight shaking diffuses the musk, which requires several hours to get to the bottom of the bottle again.

EMBOLISM IN THE SPINAL CORD.

CASES of embolism of the arteries of the spinal cord are so rare, that the following account of an alleged example of the affection, which we abstract from an article reported in the *Wiener Medizinische Wochenschrift* (Nos. 42 and 43), will probably be read with interest. The patient was a boy aged sixteen years, who, up to June, 1879, was apparently in good health. On the 6th of that month, whilst at work in the stables, he experienced a sharp pain in the thighs, which travelled thence upwards towards the gastric region, and backwards to the corresponding portion of the back. Paralysis of both lower extremities, of the vesical and rectal functions, and complete cutaneous anæsthesia of both lower extremities and loins, dated from that time, and for three days and nights severe neuralgia affected the lower extremities. According to the mother's account a deep blue discolouration of the skin about the sacral region was to be seen on the first day after the sudden onset of the disease; and after three or four days a slough appeared, which spread in depth and breadth, till, on his entry into the hospital, it was about two hands-breadth in size, and laid bare the bone. Similar sloughs appeared in the course of the next two weeks over each trochanter major. Four weeks after the beginning of the disease the legs were œdematous. The state on admission to the hospital fully confirmed the account of the previous history. The patient was much wasted and anæmic; there was no sign of cardiac disease. There was no excurvation or irregularity of the vertebral spinous processes, *i.e.*, no sign of disease of the spine. The muscles of the arms were much wasted; both the biceps muscles were tolerably strongly contracted, but with this exception there was no real impairment of movements in the upper parts of the body. Anæsthesia of the lower limbs existed in front as high as Poupart's ligaments; behind, as high as the last ribs. The muscles of the lower limbs were absolutely paralysed and completely atrophied. The patient could not sit up. No plantar or knee "reflexes" could be got. The urine, which flowed away continually, was cloudy, alkaline, ammoniacal, and contained a trace of albumen, with a sediment of epithelial pus-cells and crystals of triple phosphate. There was no spontaneous action of the bowels.

There was but one rigor, on October 14, 1879—temperature then 100·5° Fahr.—otherwise there was continued fever, fluctuating between 100·5° and 104° Fahr. Death ensued on October 18.

At the autopsy some areas of softening in the cortex and underlying white matter of the cerebrum, mostly about the size of a pea, were seen; the whole of the lumbar region of the spinal cord was soft and almost fluid; in both these situations Gluge's corpuscles were found, and the vessels were plugged with tough fibrin. The kidneys were diseased, and there were signs of old infarcts in them. The spleen showed some recent hæmorrhagic infarcts. There were vegetations on both flaps of the mitral valve.

The diagnosis of the case during life was one of extreme difficulty. Dr. Weiss, under whose care the patient was, passed carefully in review the causes which would explain the symptoms. Acute myelitis, hæmorrhage within or without the spinal cord, embolism of the spinal arteries, successively presented themselves for consideration. Against the notion of embolism was the circumstance that no sign of heart disease was discovered during life. That thrombosis of the vessels existed there can be no reasonable doubt, but it must be a question, considered theoretically and scientifically, whether the plugging of vessels observed was primary or secondary. The fact that large granular cells—so-called inflammatory corpuscles—were found in the softened tissues is held to be sufficient evidence that the *ramollissement* was a real pathological one. The presumption, it is fair to admit, is greatly in favour of the notion that the case is one of embolism, seeing that evidences of that process existed in the kidneys and spleen, and probably also in the brain.

CAMPHOR ENEMA.—M. Vigier states (*Gaz. Hebdom.*, November 10) that camphor (or musk) may be perfectly suspended and become easily divisible by the following formula:—Camphor 1 gramme, gum arabic 2 grammes, 1 yolk of an egg, and 250 grammes of decoction of linseed.

FROM ABROAD.

Indications and Contra-indications of Tracheotomy in Croup.

(*Concluded from page* 591.)

Contra-indications of Trachcotomy.—The tendency to restrict the number of contra-indications appears to go on continually increasing, and if matters proceed at this rate we shall finish by operating indistinctively in every case of croup at the end of the second period, whatever other conditions may be present. To those who object to this manner of proceeding I have repeatedly heard the reply made, "Why should we not operate in all cases, since we risk nothing that has not been already lost? Suppose that the operation saves but one of these children, condemned, as you say, to certain death in spite of tracheotomy, is that not enough to justify surgical intervention?" This reasoning is specious, and I acknowledge that it is difficult to make a categorical reply to it; but, at all events, we may remark, it is based only on a supposition, namely, that among a certain number of cases declared not operable by an experienced practitioner, one may be found that becomes cured. At the beginning of my career I operated upon a great number of patients in whom reasoning told me that I ought not to operate, and I lost them all; and I yielded to the zeal of my successive *internes*, who, in the ardour of youth, implored me to try the chance of an operation in children who seemed to me doomed to a certain death—and they all died. Do you not think that we should have done better to let these unfortunate children die in peace? That is my opinion; yet I have been and am still one of the greatest partisans of this operation, and I believe that I have performed it oftener than any living practitioner. In order to prove that, properly speaking, there is no contra-indication, it has been the custom to go over one by one (as we shall do) the various conditions which can be regarded as causes of failure; and it has generally happened that for each condition a successful result has been found in order to justify the operation. But, in making this analytical investigation, the reality has, according to my opinion, not been faced as you will have occasion several times to see it in this hospital during the ensuing year. This said, I shall leave you in part the care of learning when it is proper to abstain from the operation; but, in order to hasten this maturity of judgment, I, in my turn, shall go over the conditions which may contra-indicate tracheotomy, or at least show its success as very problematical.

Diphtheritic Infection.—Characterised by thick false membranes in the throat and nasal fossæ, considerable glandular swelling, small and frequent pulse, pallor of the integuments, etc., this infection should, in my opinion, as a general rule, form a contra-indication to the operation, and absolutely so in very young children. Still, I find in M. Sanné's remarkable work this passage:—"I have seen patients as infected as it is possible to be, with enormous adenitis, diphtheritic coryza, cutaneous diphtheria, angina, and croup, owe their lives to tracheotomy." I must avow I have never been so fortunate, and have never seen a patient recover who united the above-named conditions; and under such circumstances, and especially if the child was under three years of age, I should abstain from the operation.

Pseudo-membranous Bronchitis.—The existence of a deep-seated diphtheritic bronchitis is certainly a condition very unfavourable to the success of the operation; but is far from being an absolute contra-indication. If we were aware of its existence before operating, we should be very anxious as to the final issue, but this would not be a sufficient reason for rejecting the operation, unless conditions indicative of the infective form were also present. The diagnosis of this form of bronchitis cannot be certainly made except in one case—when the patient rejects a pseudo-membranous tree extending to the minute divisions of the bronchi. We repeat, that even when in possession of this certain diagnosis we should not renounce an operation when the asphyxia returns after its suspension, which usually follows the expulsion of the bronchial membrane; on the condition, however, that the asphyxia is plainly that which depends upon obstruction of the larynx. The operation is justified in such a case by the success which has attended it a good number of times. Of this you will find examples in all the works, and especially in the *thèse* of Prof. Peter; and you will not long follow the practice of this hospital, and fail to see some of these little patients, who, during the operation, expel a pseudo-membranous tree, minutely subdivided, and yet recover. The signs which are said to characterise the presence of these false membranes, such as great frequency of respiration and pallor of the skin, are very fallacious, and it is only the expulsion of the false membrane during or after the operation that positively proves its existence. The existence of bronchial diphtheritis once recognised, and added to the other signs that indicate diphtheritic infection, would, as I have said, induce me to reject the operation.

Broncho-pneumonia.—If this affection, existing at the moment of the operation, cannot be rigorously declared as a positive contra-indication, it compromises the chances of recovery in the highest degree. Its existence, however, can only be suspected by the rapid respiration (40 to 50), the acceleration of the pulse (130 to 150), and the elevation of temperature (39° to 40° Cent.). If the child be auscultated at the beginning, the characteristic fine subcrepitant râles may sometimes be distinguished; but if the croupal affection is even only slightly advanced, auscultation reveals no sound at all. Croup attended with broncho-pneumonia almost from its commencement is of an inflammatory nature, and usually very rapid in its progress. The operation, when practised, is attended with the cessation of the laryngeal asphyxia, but the thoracic symptoms become exasperated. I am of the opinion of those who regard the direct entrance of the air through the canula as favouring the increase of the broncho-pulmonary phlegmasia when already existing, and as originating it in a good many instances. We may say, with few chances of being deceived, that broncho-pneumonia, when it exists at the time of the operation, is always fatal; that it is most often so when it follows closely on this; and that the chances of recovery are greater in proportion to the late appearance of this complication.

Chronic Affections of the Lungs.—I performed tracheotomy on, and cured, a child (who is now a man) upon whom M. Gendron had formerly diagnosed a tubercular induration of the apex of the lung. This, at the time of the operation, and as long as the canula remained in, could not be recognised, but after the cure was found to exist.

Chronic Catarrh.—At first sight, chronic catarrh of the bronchi would appear a cause very unfavourable to recovery, while, on the contrary, it would seem to favour this by detaching the false membranes. All those who have witnessed a certain number of operations are aware that scarcely any recover in whom there does not exist a sufficient catarrhal secretion. It is probably in consequence of the abundance of the catarrhal secretion that pertussis is not so unfavourable a condition as might be supposed. I have seen children operated upon for croup during the course of a pertussis, completely recover; and MM. Millard and Sanné each relate three such cases.

Albuminuria, which is often very abundant in cases of severe diphtheria, is a very bad sign as indicative of deep-seated poisoning. Still, by itself, apart from the other conditions which characterise infectious croup, it should not form a positive contra-indication to tracheotomy; for I have seen patients who presented this symptom in the highest degree, recover completely after the operation. When the albumen existed abundantly before the operation, and diminishes progressively after it, it is of good augury.

Measles and Scarlatina.—If we cannot say that all tracheotomies practised for croup consecutive to measles are followed by failure, it is certain that the number of recoveries can be very easily counted. I have obtained two such, Millard three, and Sanné four. Death is almost always the rule, whether we operate or not, in this form of ulcerative laryngitis, which constitutes one of the forms of croup following severe measles, and which shows itself by preference among feeble and exhausted children. What is said above also applies to *scarlatina*; but great account must be taken of the epoch which the primary disease has reached and of the general condition of the health of the child. If the pyrexia has been of but a moderate intensity, or the croup has only supervened during convalescence, when the patient has recovered strength, the chances are much greater. When the

false membranes which exist in certain forms of angina, of severe or malignant scarlatina, extend to the larynx, tracheotomy is of no utility.

Age.—This of itself does not constitute a true indication, as cures have been obtained at all ages. I, as well as many others, have succeeded in quite young children—from thirteen to fifteen months. But on this point, and on many others, you may consult my article on "Cronp" in the "Dictionnaire Encyclopédique." In order, however, to give you an idea of the influence of age, I exhibit to you the following table of the successes attained at the Hopital des Enfants, according to the different periods of life:—

Age.	Operations.	Recoveries.	Proportion.
1 to 3 years .	976	104	1 in 9·37
3 to 4 „ .	820	175	1 in 4·68
4 to 5 „ .	736	174	1 in 4·26
5 to 6 „ .	497	148	1 in 3·30
Above 6 „ .	547	198	1 in 2·76

To sum up, you observe that, taken isolated, the different circumstances which we have just passed under review rarely constitute true contra-indications. But matters frequently present themselves in a far more complicated manner. You will frequently find entering our wards an infant two or three years old, wasted, cachectic, or scrofulous, having had measles, and presenting a croup with laryngeal asphyxia—and more than this, with a diphtheritic coryza, an angina of the same nature, and, judging from the rapidity of the pulse and the number of inspirations, a broncho-pulmonary phlegmasia; and, if you examine the urine, you will find flocculi of albumen. Would you practise tracheotomy in such a case? If you do so, and the patient do not die under your hands, take it for certain that he will perish in a very short time, and that the operation will not have been of any utility whatever.

REVIEWS AND NOTICES OF BOOKS.

Transactions of the American Gynecological Society. Volume VI., for the year 1881. Philadelphia: H. C. Lea, Son, and Co. 1882. Pp. 542.

We have in this volume some excellent work. It opens with a paper by Dr. S. C. Busey, of Washington, on "Acute Hyperæsthesia of the Peritoneum, either circumscribed or diffused, following minor gynæcological operations and manipulations." The cases described are such as, we imagine, most persons meeting with them would consider to be examples of peritonitis, exceptional in the acuteness of their onset and decline, and in the absence of marked fever. Dr. Busey thinks the unusual features we have indicated are sufficient to warrant him in refusing to regard the cases as instances of inflammation of the peritoneum; and he therefore gives them the name which stands at the head of his paper. We will not follow him through the discussion of the subject; but we would suggest that his reasoning would have greater force if he were to particularise the nature and extent of the thermometrical observations upon which he founds the important statement that there was no fever. The paper is well worth reading. The next paper is by Dr. H. J. Garrigues, of New York, and is entitled, "Exploratory Puncture of the Abdomen." It gives an account of investigations made in order to find out whether the microscopical examination of fluids withdrawn from the abdominal cavity could be made useful for diagnosis. The writer gives an exact account of the characters of the fluid in each of the ninety-four cases in which the diagnosis was subsequently ascertained beyond any doubt. In summarising his observations, Dr. Garrigues keeps close to his facts, and refrains from hypothesis or premature generalisation; and his paper is thus, so far as it goes, a sterling piece of scientific work. We hope he will continue his researches. Dr. G. H. Lyman, of Boston, follows with "Notes on Cases of Pelvic Effusion resulting in Abscess." He advocates early puncture per vaginam. The reports of cases which accompany the paper are valuable, although we should often have liked them fuller. In the next paper, which is by Dr. Nathan Bozeman, of New York—"On Genital Renovation by Kolpostenotomy and Kolpo-eepetasis in Urinary and Fecal Fistules"—those who are fond of long words may have their taste gratified. Here are a few: "anakainosis," "hystero-ephelkosis," "eystostellosis," "kolpourethrocystokleisis." Turning to the subject of the paper, we may remark that, useless as are many of the proceedings with which the name of Dr. Marion Sims is associated, we had thought that in the treatment of vesico-vaginal fistula the directions of that surgeon might really be followed with advantage. But, according to Dr. Bozeman, the method of Sims in this operation is an exceedingly bad one. Vesico-vaginal fistula is so rare in this country, as compared with America, that we will not presume to express an opinion as to which of these eminent operators is likely to be in the right. Dr. Ely van de Warker writes on the forcible elongation of pelvic adhesions, and describes a new operation which he has invented. To our thinking, it is impossible that the proceeding described should effect that which the inventor assumes that it does; and if it did, doubtful whether the patient would not be the worse for it. We are glad to notice that several of the speakers protested against the piece of mischief. Dr. Isaac E. Taylor contributes an excellent clinical account of the so-called lupus or esthiomène of the vulvo-anal region. The illustrations are not so good as the description. Dr. Goodell, of Philadelphia, writes on bursting cysts of the abdominal cavity. He gives three cases in which parovarian cysts repeatedly burst into the abdominal cavity, and refilled; the nature of the cysts being afterwards put beyond doubt by their removal. He is of opinion that "when an ovarian cyst bursts the patient either dies quickly or the constitutional symptoms are very marked. . . . When there is but little constitutional disturbance, we have to deal with a cyst of the parovarium or broad ligament." This opinion, based as it is upon facts, is of much interest, for we have heard it maintained that all the cases in which ovarian cysts were supposed to have been cured by spontaneous rupture, and in which the opportunity for verification of the diagnosis subsequently occurred, have turned out to be cases of hydronephrosis, in which the obstruction was overcome, and the renal tumour emptied per urethram. Several cases were narrated in the discussion on Dr. Goodell's paper, which at least admit of interpretation by this latter theory; but it cannot apply to Dr. Goodell's own cases. Dr. H. F. Campbell, of Augusta, Georgia, narrates a case in which a woman suffering from facial erysipelas went through childbed without any bad symptom. From this case he calls for a reconsideration of the commonly accepted opinion as to the close connexion between erysipelas and puerperal peritonitis. Dr. Gaillard Thomas, of New York, describes a most interesting case in which the bladder was adherent to an ovarian tumour, and drawn up in front of it as high as midway between the umbilicus and ensiform cartilage. The closeness of the adhesions, and the tension of the vesical wall, rendered it impossible, either by a catheter or by manipulation, to make out the boundary of the attached bladder. Dr. Thomas therefore boldly cut into it, and then ascertaining its exact situation by his finger inside it, separated it from the underlying tumour, removed this in the usual way, and then stitched the hole in the bladder to the wound in the abdominal walls. A case more calculated to test the resource of an operator could hardly be met with, and it is pleasant to record that Dr. Thomas's ready determination was crowned with success. He has collected seven other cases of the same kind by different operators, but in none of them was the result a fortunate one. A case of uterine fibroid with partial inversion is put on record, together with a useful list of similar published cases, by Dr. Reamy, of Cincinnati. Dr. Albert H. Smith, of Philadelphia, contributes a thoughtful and laborious paper on "Axis Traction with the Obstetric Forceps," which elicited a most interesting discussion, in which the advantages and drawbacks of the Tarnier forceps were fully canvassed. It seems to us, however, that the problems which forceps-delivery presents, as to the direction and position of the different forces and resistances concerned, are not so simple as some seem to think, and are yet far from being thoroughly understood. Dr. A. D. Sinclair, of Boston, publishes a second and third series of measurements of the uterine cavity in childbed, but for the present postpones generalisation from them. We have next a somewhat fragmentary paper by Dr. J. W. Underhill, of Cincinnati, on "Jaundice in Pregnancy." Dr. Jenks gives an antiquarian study on "The Practice of Gynecology in Ancient Times," which will doubtless interest many. Following this, we have two poor papers relating to clinical obstetrics—one on the prevention of cervical lacerations, the other on the management of the first stage of labour. Dr. Charles C.

Lee, of New York, then writes on "The Treatment of Chronic Perimetritis by Puncture and Iodine Injections." Dr. Lee, we are glad to find, adopts the only scientific method of determining therapeutic questions—viz., that of publishing *every* case in which the supposed remedial measure is tried. The result in the present instance was that six of the cases were injured rather than benefited; three got well, but no quicker than they might have been expected to without it; while two, in Dr. Lee's opinion, did recover more rapidly and thoroughly than is usual. It would be well for gynæcology if all the devisers of new instruments and operations would follow Dr. Lee's example in the way they make their results known. Dr. Frank P. Foster contributes a paper on "The Mechanical Action of Pessaries," which seems to us a reproduction in substance as well as in title of a paper read some years ago before the Obstetrical Society of London by Dr. John Williams. Dr. Edward Warren Sawyer, of Chicago, reports two cases of "Mania Lactea," but has little instruction to give about this condition. Lastly, Dr. B. B. Browne, of Baltimore, gives a paper entitled, "A Contribution to the History of Combined Intra-uterine and Extra-uterine Twin Pregnancy." He has collected from literature twenty-four cases of this rare complication, and his contribution is thus a valuable record of facts.

Taken as a whole, the volume is not only a bulky, but a good one, and we are glad to think that we see in it some signs of an inclination to discountenance meddlesome practice, and to recognise the fact that recovery following a particular treatment is not of necessity its result.

Syphilis. By V. Cornil, Professor in the Faculty of Medicine of Paris, and Physician to the Lourcine Hospital. Translated, with notes and additions, by J. Henry C. Simes, M.D., Demonstrator of Pathological Histology in the University of Pennsylvania, and Assistant-Surgeon to the Episcopal Hospital, Philadelphia; and J. William White, M.D., Lecturer on Venereal Diseases and Demonstrator of Surgery in the University of Pennsylvania, and Surgeon to the Philadelphia Hospital. With 84 illustrations. London: Kimpton. 1882. Pp. 461.

This volume consists of a series of lectures delivered by Professor Cornil in the spring and summer of 1878 in the Lourcine Hospital. The original form of lectures has been changed into chapters in the present issue, and a large amount of additional matter has, with the consent of the author, been inserted by the translators. These interpolations deal mainly with the clinical aspects of the disease, and contain much valuable and well-digested material. We cannot, however, but think that such additions, indicated as they are merely by brackets, interfere in many places with the continuity of the original work. For example, between the statement of Fournier's view of the intimate connexion existing between syphilis and locomotor ataxy, and M. Cornil's opinion on the same point, we find that some thirteen pages have been inserted by the translators, dealing with the whole subject *in extenso*. M. Cornil's reasoning is essentially that of the anatomist, and the insertion in the text of extraneous matter mars the symmetry of the original memoir. Such additions might with advantage have either appeared in different type, or still better have been placed in an appendix to the original lectures.

Of the series of researches contained in the present work it is needless to say that they are worthy of the high reputation the author has gained in other branches of pathological anatomy. The volume differs in one respect from the many excellent treatises on the subject which have appeared in recent years both in this country, in France, and in America, and supplies a deficiency in the bibliography of the affection by giving especial prominence to its minute anatomy. The histology of the various lesions, from the initial chancre to the gumma, including the mucous patch, the superficial and deep cutaneous syphilides, the osseous and visceral affections, is minutely described and figured, and M. Cornil has added new observations of his own. His microscopical sections were, as far as possible, made from portions of tissue removed during life, so as to eliminate appearances due to post-mortem change; and excellent drawings of the chief lesions are scattered throughout the volume.

The chancre and all the various forms of syphilitic skin affections are fully treated in the earlier chapters. The description of the osseous lesions of syphilis, and more especially of those occurring in new-born children, forms one of the most interesting chapters in the book. Much attention has been directed to these affections since the earlier researches of Parrot, but their diagnosis from rickets cannot, even now, in all cases be considered as entirely satisfactory; and on this point the author observes that it will be necessary to recommence the study of the lesions of rachitis, at the same time eliminating carefully all children suspected of syphilis.

M. Cornil's deductions on many points are more directly based on anatomical considerations than on merely clinical data. He is indisposed to accept at present the evidence of any direct specific arteritis, but attributes the cerebral softening of syphilis primarily to the presence of small gummy tumours on the arterial wall. The gummata secondarily involve the artery by compression, thrombosis, or arteritis.

The later chapters of the work deal with the various other visceral lesions, and numerous illustrative cases are added. We can strongly recommend this work to all who are interested in the study of the intimate pathology of syphilis.

Nederlandsch Tijdschrift voor Geneeskunde. Tevens orgaan der Nederlandsche Maatschappij tot bevordering der Geneeskunst. Bundel, uitgegeven door de Leden der Vereeniging, bij gelegenheid van haar Vijf-en-twintig jarig bestaan. (*Dutch Journal of Medicine.* A conjoint publication of the Dutch Society for the advancement of Medical Science. A Special Number published by the members of the Society on the occasion of the twenty-fifth year of its existence.) Amsterdam. 1882.

This contribution to medical science from our Dutch *confrères* consists of 230 pages, is illustrated with a number of diagrams, and contains a great variety of interesting articles. Physiology, Surgery, Medicine, Midwifery, are all more or less represented, and there are also some articles of general interest—such as the remarks by Dr. Giltay on the Life of Mulder; the criticisms by Dr. Egeling on the technical language used by medical men; an address by Professor Israëls on the occasion of the twenty-fifth general meeting of the Dutch Medical Association, and a paper by the same physician on the state of Medical Education in Amsterdam in the year 1691. Among the physiological papers are—one by Dr. Talma on the Influence of Respiration on the Circulation of the Blood; one on the present state of our knowledge as to the nature of Impregnation, by Dr. Hoffmann; and one on the amount of negative pressure in the thorax in tranquil inspiration and expiration. There is an elaborate paper by Dr. Korteweg on Croup in Holland, and an interesting series of remarks by Dr. P. K. Pel on the Diagnosis and the Disappearance of Hepatic Cirrhosis; reports of cases of complicated Ovariotomy by Dr. Halbertsma; and three cases of Hysterotomy by Péan's method, by Dr. Goudsoever.

Together with the above publication we have received two numbers of the weekly journal of the Dutch Medical Society, and in these numbers the most important articles are on the Treatment of Urinary Calculi, on Legislative Measures for the Prevention of Syphilis, and on the proceedings taken by the Society for the Promotion of Vaccination.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P.; Professor of Obstetric Medicine in King's College; late President of the Obstetrical Society of London; Examiner in Midwifery to the University of London, etc. In two volumes. Fourth Edition. London: Smith, Elder, and Co. 1882.

The rapidity with which successive editions of this treatise have appeared, sufficiently attests its popularity, and therefore its suitability to the purpose for which it was intended. It is only necessary for us to say that this fourth edition is not a mere reprint, but that the whole work has undergone careful revision.

On the 19th ult. the Viceroy laid the foundation-stone of a new hospital at Simla, which is to be named the Ripon Hospital. The attendance of Europeans and natives was large, and a considerable sum was subscribed on the spot.

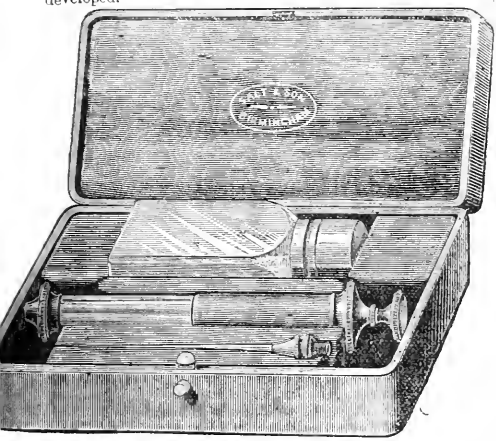
GENERAL CORRESPONDENCE.

NEW APPARATUS FOR TESTING FOR ALBUMEN IN URINE.

LETTER FROM MR. G. P. BEST.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to invite your attention to an apparatus suggested by me, and arranged by Messrs. Salt and Son, of Birmingham, for the utilisation in clinical practice of an idea, whose discovery I claim, of a new and, as I believe, more perfect mode than the ordinary one of applying the test of nitric acid to ascertain the presence of albumen in urine. The method depends on the syringe or suction principle, which, obviously, is peculiarly appropriate where you desire to bring two fluids of unequal densities into contact with each other without mixing them. In this case the slow process of diffusion suffices to effect in the layer of urine adjacent to the nitric acid that change which the tester seeks—and, as the contact between the two fluids is provided for without agitation of either, the albuminous film, when present, is rendered as dense and well-marked as it can possibly be. Again, no confusion can arise from the line of lithates which frequently presents itself, as the nitric acid (which is drawn up last) gets no chance of coming in contact with that part of the urine where this line is developed.



For use in private practice, where the medical man usually has the urine which he wishes to test presented to him in that most unmanageable of all vessels—the chamber-pot—the apparatus will be found specially convenient. A few drops (and sometimes this is all that is procurable) may be easily drawn up from the clearest part of the contents of the voluminous utensil, and submitted to the necessary examination.

The instrument is easily cleansed by drawing in and squirting out a little water from the ewer which stands handy in every well-regulated bedroom. All dripping of either liquid is provided against in the length and bore of the nozzle. Various other difficulties, chemical as well as mechanical, which cropped up in working out the idea have been successfully met. I am, &c.,

GEO. P. BEST, B.A., M.B. Cantab., M.R.C.S. Eng.

Camp Hill, Birmingham.

P.S.—Since writing the above Dr. Roberts's suggestion for a substitute solution for nitric acid as a test for albumen comes very timely to hand, as I had experienced much difficulty in the convenient storage of nitric acid for pocket carriage. Whatever superiority my method has in dealing with nitric acid is intensified in the case of the hydrochloric solution, the reaction of which with albuminous urine, as exhibited with my syringe, is so sharply defined that it leaves nothing to be desired.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 10.

JOSEPH LISTER, F.R.S., President, in the chair.

THREE living specimens were shown—one by Mr. Golding Bird, of the good result of a transpatellar excision of the knee in a boy; one by Mr. Christopher Heath, of the well-known case in which the tongue and part of the lower jaw had been removed for cancerous disease many years ago; and a case in which a double MacEwen's operation had been done for genu valgum.

The PRESIDENT informed the members of the receipt of a letter from Professor Pantagleoni, of Rome, thanking the Society for the honour done him by his election as an Honorary Member of the Society.

REMOVAL OF A FIBROID TUMOUR, WITH EXTIRPATION OF THE UTERUS—? FATAL TERMINATION.

Mr. GOLDING BIRD narrated this case. The patient was thirty-seven years of age, and had had the tumour for three years. Its increasing size, the pain and weight accompanying it, and the repeated and prolonged attacks of nausea with which it was attended, compelled her to seek surgical relief. The tumour—the size of the uterus at six months—grew from the anterior wall of the cervix, and lay between this and the bladder; to the latter it was intimately connected. The uterus itself was all but drawn out of the pelvis, and the ovaries (both cystic) could be felt through the abdominal parietes. Prior to the operation, however, they were thought to be bases of the tumour. The operation was fully described, and special mention was made of the use of an "apron" of "green carbolised protective," well tucked in over the intestines when the abdomen had been opened, whereby they were easily kept out of the way and sheltered from the spray. The tumour had its peritoneal investment circumferentially divided where it was reflected on to the pelvic walls or viscera, and it was there shelled out from its bed, the broad ligaments being previously divided. The union with the uterus was intimate, and had to be divided, while the fusion of the fibres of the tumour with those of the bladder rendered the separation very difficult. All bleeding was stopped with carbolised silk ligatures, and the peritoneum, where divided between rectum and bladder, at the completion of the operation was united with a continuous suture. The uterus and ovaries were removed after the tumour, a pedicle being formed out of the cervix uteri. it was tied in four parts, as in Erichsen's method of tying nævi. Before the closure of the peritoneum, a rent in the bladder had to be carefully sewn up. A catheter was tied in. The general conduct of the case was that of an ovariotomy. For forty-eight hours all went well, and then severe vomiting set in, which eventually exhausted the patient, having continued till the fourth day, when she died. The post-mortem showed repair to have been perfect as far as it had gone. There was no evidence of the urine having passed beyond the bladder. There was no suppuration, and only slight pelvic peritonitis. There did not seem to be enough to account for the vomiting, and the author explained this symptom as depending upon some idiosyncrasy of the patient, inasmuch as, when she had typhoid fever ten years before, vomiting, severe enough to threaten life then, was the most prominent symptom. The specimens removed at the operation, and the parts reserved at the post-mortem, were exhibited.

Mr. KNOWSLEY THORNTON asked whether a record had been kept of the pulse-rates. He thought that vomiting might well have been the actual cause of death, the sickness, however, being due to septic poisoning, which might not manifest itself in increased body-heat; hence the importance of ascertaining the frequency of the pulse. With regard to the general question of operation, he was inclined to think that interference was less hopeful than had once been supposed. The operation was too much in vogue, and ought not to be done without much graver reasons than seem to have existed in the case just narrated. The only justification for hysterectomy existed when the hæmorrhage was excessive and threatened life; so that the number of cases

requiring such treatment would probably be but few: and most likely the extra-peritoneal method advocated by Hegar, Kaltenbach, and others, was the best, direct peritoneal sepsis being thereby avoided. Mr. Lawson Tait had shown that cystic ovaries rather frequently went with fibroid disease of the womb, and had indeed gone so far as to think that this ovarian condition might own a causal relationship to the uterine fibromata. Mr. Thornton was fully convinced of the value of the less severe operation of oophorectomy, and thought that removal of the uterine appendages would have been the proper treatment of Mr. Golding Bird's case, because the removal of the ovaries, etc., seemed to present no difficulty in this case. Oophorectomy was, however, by no means always without its encumbrances. In the present position of our knowledge of the subject, he believed that excision of the uterus ought not to be practised until the minor operation of extirpation of the uterine appendages had been tried and failed. Oophorectomy probably did good by lessening the blood-supply. However that may be, Mr. Thornton had now had nine cases in which this operation had completely succeeded, the tumours having entirely disappeared in periods varying between five and ten months. Mr. Golding Bird, in reply, said that Mr. Bryant had discussed with him the propriety of oophorectomy, but had advised hysterectomy in this case. The pulse-rates had not been (but should be) recorded in the paper, because little reliance could be placed on them, owing to the patient being so nervous and excitable.

Spina Bifida.

Mr. Clutton said that when three weeks old the infant was brought to St. Thomas's Hospital, and was found to be a well-nourished, healthy child, with the exception of the above imperfection. The spina bifida was situated in the lumbar region, sessile, and with exceedingly thin walls. The impulse when the child cried was very marked, and the aperture in the bony canal large. There was no paralysis of the lower limbs, and the cyst, examined by transmitted light, did not appear to contain the cauda equina. The skin had been so stretched that the walls were quite translucent, and would evidently soon have given way, and allowed the fluid to escape. A week after it was first seen, and when the child was four weeks old, the cyst was injected with a drachm and a half of Morton's fluid, as little as possible of the contents of the sac being allowed to escape. A pad with collodion, and bandage, completed the treatment. The mother was instructed to keep the baby on its back, to prevent, as far as possible, the gravitation of the fluid into the vertebral canal. The constitutional disturbance was very slight, and on the third day the child was in its usual health. The cyst began immediately to shrink, and by the end of a week the skin was in loose folds. At the end of the third week there was nothing to be felt of the spina bifida except a small puckered lining of cutaneous tissue. Mr. Clutton also related a second case, in which the injection of Morton's fluid was immediately followed by convulsions and death. In this instance the spina bifida had an ulcerated skin, and was much distended. He had advised treatment as giving the only chance of life. It was necessary to tell the parents plainly that there was great risk attached to the operation.

Mr. Morrant Baker asked whether any fluid had been allowed to escape before the injection was made, and whether this child was placed in the dorsal position after the operation. He did not think that the fatal case in any way detracted from the value of the successful one.

Mr. Pearce Gould inquired whether the skin in the first case was quite healthy, and whether the fluid of the spina bifida had been tested for sugar. The case was more favourable if the skin were healthy over the tumour, and it was also a matter of importance whether the dilatation was of the arachnoid or subarachnoid space. In the second case, was it true that the child would certainly die? He mentioned a case of large spina bifida which had sloughed, and which recovered, the wound soundly granulating, though the child died some time after from marasmus, not from the spina bifida.

Mr. Barker had used the injection of Morton's fluid once in a case of spina bifida, without producing any effect on the tumour or any unpleasant symptoms. The child died later on from bursting of the tumour.

Mr. Howard Marsh said the subject was a most important one in the surgery of childhood. He narrated a case in which the injection of about a drachm of the fluid produced immediate pallor and collapse of an infant four months old; the tumour had a healthy covering of skin, was of the size of a Seville orange, and situated in the usual place. The child died in the collapsed state, sixteen hours after the injection. He could not conceive that the treatment was not free from risk. The relation of the tumour to the spinal canal and the size of the aperture in the bone were important points; the introduction of the fluid should be made slowly, so that it might gravitate by its own weight to the bottom of the sac, and then the patient should be kept in the dorsal recumbent postnre.

Mr. Heath narrated a case of anterior meningocele, which was recorded (along with another one by Prescott Hewett) by Sir James Paget in an early volnme of the *Transactions of the Pathological Society*, in which iodine must have been injected into the cavity of the lateral ventricle without producing serious symptoms. He thought that talipes calcaneus was very common in cases of spina bifida.

Mr. R. W. Parker had treated about a dozen cases in the way recommended by Morton, with one successful result, and without any bad effects in the other eleven cases. The size of the osseous aperture was of much importance, as was also the circumstance whether the membranes alone formed the tumour, or whether the central canal of the spinal cord was also dilated. He had injected about half a drachm of Morton's fluid every week for two or three weeks without producing any apparent effect. Recently he had had a case under his care, where the child when first seen was twenty-four hours old. The fluid oozed very freely from the tumour for fourteen days. The sac had sloughed, and left a cleft sufficient to admit two fingers; opisthotonos had developed, and the child was now in a very bad way. In this case there was double talipes calcaneus. In the case which recovered there was talipes calcaneus on one side only; in another instance there was equino-varus.

Mr. Godlee had had a successful case. The spina bifida had a very thin wall of healthy skin. A drachm of fluid was slowly injected; the dorsal posture was resorted to; the sac gradually dwindled away

Mr. Bennett had treated one case without any success, but there was no immediate bad effect. Another instance of spina bifida had come under his care, in which he declined to operate because the child was out of sorts at the time. This child died on its way home, in convulsions. If he had used the injection, probably that would have been credited with the convulsion.

Mr. Morrant Baker mentioned a case in which spina bifida had been consolidated, the patient afterwards becoming hydrocephalic and losing power in the legs. Was there any connexion between the cure of the spina bifida and the subsequent course of the case?

Mr. Clutton, in reply, said that sugar was found in the fluid of his first case, and the skin, although very thin, was not ulcerated. The explanation of success or failure might be found in this: that the aperture in the bone did not necessarily correspond with the aperture in the theca vertebralis; one might be very different in size as compared with the other.

A Case of Separation of the Epiphysis of the Clavicle by Muscular Action.

Mr. Christopher Heath brought forward this case. A boy of fourteen, whilst raising his arm violently to bowl at cricket, felt something give way at his collar-bone. The inner end of the clavicle was found to be unduly prominent, and presented a sharp edge beneath the skin, quite unlike the smooth end of a bone covered with articular cartilage. The supra-sternal notch was quite distinct, and equally defined on both sides, and a thin lamella could be felt on the right side, intervening between it and the gap caused by the starting forwards of the inner end of the clavicle. The treatment consisted in laying the patient down, when the bone at once dipped into place, and it was retained by a plaster-of-Paris bandage. Mr. Heath referred to the great rarity of the accident, and the diagnosis of it from dislocation of the clavicle, and insisted upon the great utility of the plaster-of-Paris bandage in fractures of the clavicle and humerus.

Mr. Lister regarded the case as of exceeding interest. It was one of great rarity, even if such a sample had ever been recorded. There was no doubt about the diagnosis;

the sharpness of the end of the bone, and the fact that a lamella was felt, were pathognomonic.

Mr. COLLINGRIDGE brought a living specimen to the Society, in which partial forward dislocation of the inner end of the clavicle had taken place spontaneously in connexion with lateral curvature of the spine in a patient sixty-three years old, who, at the age of three years, had dislocated the right hip. He had not been able to find any other case in Hamilton's work, nor any reference in Neale's Digest.

SIX CASES OF DIPHTHERIA TREATED BY THE LOCAL APPLICATION OF BORAX OR BORACIC ACID.

Dr. GOODHART narrated these cases. In four a saturated solution of boracic acid in glycerine was used, the application being made in part by a hand-spray, in part by a laryngeal brush, and as often as every two hours in some cases. In the other two a dilute solution of the glycerinum boracis was used. The first case was a very severe one, and it died from the renal complication on the seventh day, but the boracic acid and glycerine seemed to be so successful in relieving the throat symptoms and in preventing the re-formation of membrane that it was determined to try it again. Of the other five, three had "croup" as well as membrane on the fauces; one had nasal diphtheria; all had albuminuria. All recovered. Tracheotomy was necessary in one case, and the glycerinum boracis was freely applied to the interior of the trachea and larynx from the wound, and to the surface of the wound itself, and it seemed to be very beneficial in loosening, dissolving, and preventing the re-formation of membrane. In another case it is believed that tracheotomy would have been necessary had not the rigorous application led to the expulsion of membrane by the mouth. In all cases it seemed to give such relief that very little difficulty was experienced in carrying out the treatment. Both borax and boracic acid have been occasionally in use as a topical application in diphtheria, doubtless for a long time past, but not, so far as is known, with any decided success; nor can it be supposed that any remedy will not often show a good proportion of failures in combating a disease such as this. It is enough to say that these agents are known to be good antiseptics, that their action is harmless when not beneficial, and that they are certainly useful in some cases.

Dr. PHILLIPS spoke of two other cases in which glycerinum boracis had been used. It was discovered that glycerine would take up three times as much boracic acid, so that the solution could be made very strong; but this must be diluted once if used in Siegel's spray. Both the cases were *in extremis*, and died, despite tracheotomy, membrane being found post-mortem in the smaller bronchi.

Dr. O'CONNOR had notes of about forty cases of diphtheria. He had sometimes used a saturated watery solution of boracic acid, but without special success. The most favourable results were got from a solution of chlorate of potash. He had never seen a case of diphtheria in which, on removing a piece of membrane once, there was no re-formation, though this new membrane might be thinner and more delicate-looking than the first portion.

Dr. LONGHURST thought that the great point was to be very careful not to irritate the parts affected. Diphtheria was a constitutional disease, and we could not expect much from local applications. We should rather rely on the powers of nature, and see that the patient had lots of nourishment and fresh air. He considered the boracic spray to be good because it did not irritate.

The PRESIDENT said that persons who adopted local applications generally extolled their own particular remedy. He could not agree with the last speaker that local applications were of no great moment. Diphtheria was of a decidedly infectious character, and infection must take place locally, even if the disease ultimately became constitutional. As an example of the efficacy of boracic acid, which he was the first to introduce into surgery, the power it had of removing the smell of a putrid onychia was instanced. He had found out that glycerine, by the aid of heat, could be made to dissolve almost any amount of boracic acid. He had used such applications to sores of the nasal and buccal mucous membrane with favourable results. No doubt the glyceride kept the acid longer in contact with the surface on which it was applied, and this was of great value.

Dr. GOODHART replied that the notion that diphtheria was a constitutional disease was no argument against the use of local applications, for it was frequently enough this local trouble which was the cause of death.

The question having been raised by the President as to what was meant by the term "constitutional," both Drs. Goodhart and Longhurst said they meant a specific poison circulating throughout the body and producing local effects.

Prior to the discussion on the above subject, Professor LISTER said that it had occurred to him, and the Secretaries concurred with his views, that it would be a good thing to have a committee to inquire into the subject of the treatment of spina bifida by means of Morton's fluid; and the names proposed were those of Messrs. Howard Marsh, Clutton, R. W. Parker, and Pearce Gould.

The meeting then adjourned.

THE OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 1.

Dr. J. MATTHEWS DUNCAN, President, in the Chair.

INTERSTITIAL OR TUBO-UTERINE GESTATION.

Mr. ALBAN DORAN exhibited a specimen of this condition. The gestation-cyst was situated at the right side of the fundus uteri. At the anterior and outer aspect of the cyst the round ligament sprang from it, and the Fallopian tube passed into it, expanding as it did so into a funnel-shaped orifice. At the opposite aspect the cyst bulged into the uterine cavity, and a bristle could be passed from the uterus through the tube into the cyst; the tube being here also dilated into a funnel shape at its entrance into the cyst. The tubal origin of the cyst was thus proved. It had burst at the second month. There was a corpus luteum in the right ovary. Mr. Doran had examined other cases of the kind in the London museums, and gave an account of them. He remarked on the rarity of the condition and the tendency to early rupture. Had the abdomen been opened, amputation of the uterus would have been the only practicable treatment. He thought that cases in which development in a supposed hernial pouch of the uterus was suspected were probably tubo-uterine.

CEPHALOTRIBE.

Mr. C. E. JENNINGS exhibited an improved cephalotribe.

HERMAPHRODITE.

Dr. CHALMERS exhibited the genito-urinary organs of a child in which the internal parts were female, while the external resembled those of the male. The clitoris was grooved below, but not channelled.

Mr. DORAN said that grooving, and even channelling, of the clitoris was normal in some of the lower animals.

Dr. FANCOURT BARNES informed the Society that the child he had exhibited at the last meeting had since died, and proved to be a female.

Dr. CHAMPNEYS exhibited the genito-urinary organs of a female with extroversion of bladder, described by him in the *St. Bartholomew's Hospital Reports*. The external genitals were such as might belong to either sex.

TORSION OF CORD.

Dr. CHALMERS also showed an umbilical cord presenting remarkable twisting and narrowing near the umbilicus.

TUMOUR OF PLACENTA.

Dr. GALABIN showed (for Dr. J. C. Roberts) a placenta in which was embedded a tumour about the size and shape of an adult human heart. It was encapsuled, and on the uterine side covered by a complete layer of placental tissue. Near it were several small similar detached masses.

DESCRIPTION OF A KYPHOTIC PELVIS; WITH REMARKS ON BREISKY'S DESCRIPTION.

This paper, by Dr. CHAMPNEYS, was read. The pelvis, except for slight asymmetry, and a process which the author termed "posterior spondylo-listhesis," was a typical kyphotic pelvis. The author criticised Breisky's description, laying stress on the influence of sitting, which, in the kyphotic pelvis, he believed increased the inversion of the tubera ischii, while in the flat pelvis it increased their eversion; the difference depending upon whether the deformity caused the tubera ischii to be inside or outside the line transmitting the body-weight—*i.e.*, the sacro-iliac synchondrosis.

Puerperal Diabetes.

A paper on this subject, by Dr. Matthews Duncan, was read. The author pointed out the distinction between the slight glycosuria of pregnant and suckling women and real diabetes, with its polyuria and large amounts of sugar. Physicians and surgeons were well aware of the dangers introduced into their cases by complication with diabetes. But the subject of diabetes complicating pregnancy and parturition had attracted almost no attention; and this probably arose from its rarity, which might be accounted for by the disease frequently destroying in women the sexual energies, as it is said to do in man. The author had collected twenty-two cases in fifteen women, and they demonstrated the great gravity of the complication as respects both mother and child. Of the twenty-two pregnancies (including those ending prematurely), four had a fatal result soon after delivery. In seven of nineteen pregnancies in fourteen women, the child, after reaching a viable age, died during pregnancy; in two the child was born feeble and died in a few hours: making an unsuccessful issue in nine of nineteen pregnancies. The histories showed that diabetes may supervene on pregnancy; that it may occur only during pregnancy, being absent at other times; that it may cease with the cessation of pregnancy; that it may come on after parturition; that it may not come on in a pregnancy occurring after its cure. They showed that pregnancy may occur in a diabetic woman; that it may be not appreciably affected in its natural progress and termination by the disease; that it is very liable to be interrupted by death of the fœtus.

Dr. John Williams thought that these cases were less infrequent than, owing to the fact that the urine was not always examined, was supposed. He had met with four. A trace of sugar in the urine was common, but this was not diabetes.

Dr. Robert Barnes had investigated the condition of the urine in pregnancy, as to albumen, urea, and sugar. The occurrence of sugar was physiological, though not constant. Sinéty had shown that sugar appeared in the urine when lactation was suppressed; this was of interest in connexion with the normal fatty change in the liver shown by Tarnier to occur in pregnancy. He (Dr. Barnes) drew a parallel between albuminuria and glycosuria during pregnancy. Both were physiological, but might pass the physiological boundary, and then grave accidents ensued.

Dr. Champneys inquired as to the treatment.

Dr. Carter said that the tendency of diabetics to collapse and coma would make us expect danger from pregnancy and labour.

The President said that the terribly fatal complication he had been describing had no relation to normal glycosuria. He thought, with Dr. Williams, that attention having been drawn to the subject, more cases would be published. He could lay down no special rules as to treatment.

On the Treatment of Post-partum Hemorrhage by Hypodermic Injections of Ergotinine.

A paper on this subject, by Dr. C. Chahbazian (Paris), was read. Ergotinine was the alkaloid of ergot of rye—insoluble in water, soluble in alcohol or chloroform. One pound of powdered ergot yielded three grains of ergotinine. It was indicated in post-partum hæmorrhage due to imperfect contraction of the uterus. The dose for hypodermic injection was five to ten minims of a solution containing one-fiftieth of a grain in twenty minims. This might be repeated if necessary, but more than twenty minims should not be given. This produced strong and permanent contraction of the uterus, acted more quickly than ergotine (which was only an extract of ergot), and did not cause local abscesses or indurations. Ergotinine was to ergotine as morphia to extract of opium. It was discovered and prepared by Tanret, of Paris.

Dr. Champneys inquired how long ergotinine would keep.

Dr. Wiltshire suggested that the hypodermic injection of ether might with advantage be combined with that of ergotinine.

Dr. Brunton asked how long ergotinine took to act.

Dr. Chahbazian said that uterine contraction usually came on in from two to five minutes after the injection of ergotinine. He could not say how long ergotinine would keep.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 9th inst., and when eligible will be admitted to the Pass Examination, viz.:—

Barker, John C., student of St. Bartholomew's Hospital.
Dewes, Frederick J., of St. Thomas's Hospital.
Dickinson, Joseph J., of the London Hospital and Cambridge.
Farrow, Fred-rick, of the Manchester School.
Goodall, Edwin, of Guy's Hospital.
Jones, Edward F., of the London Hospital.
Maitland, Percy E., of the Madras School.
Mathias, Hugh B., of St. Bartholomew's Hospital.
Parsons, Harry C., of St. Bartholomew's Hospital.
Pietersen, James, of St. Thomas's Hospital.
Pinches, William H., of St. Bartholomew's Hospital.
Read, Arnold G., of St. George's and St. Thomas's Hospitals.
Robinson, Montague G., of St. Bartholomew's Hospital.
Todd, Frederick, of St. Thomas's Hospital.
Whitehead, Arthur M., of the London Hospital.

Three candidates, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months. With this meeting the primary examinations for the present year were brought to a close.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 13th inst., viz.:—

Adkins, George, L.R.C.P. Lond., L.S.A., Yealpton, student of the London Hospital.
Baker, W. Brain, L.S.A., Banbury, of the London Hospital.
Boxall, Robt., L.R.C.P. Lond., Cranleigh, of University College Hospital.
Bromley, H. Urgent, L.R.C.P. Edin., Braintree, of St. Mary's Hospital.
Butterworth, Samuel, L.R.C.P. Edin., Rochdale, of the Manchester School.
Coombe, C. Frederick, Worthing, of St. Thomas's Hospital.
Furnival, F. Henry, L.S.A., Nottingham, of St. Thomas's Hospital.
Heathcote, Ralph G., L.R.C.P. Edin., Manchester, of the Manchester School.
Herman, Christian L., M.B. Edin., Cape Town, of St. Bartholomew's Hospital.
Lister, J. Herbert, L.S.A., Huntley-street, W.C., of Guy's Hospital.
Littlewood, J. Ocroft, L.S.A., Sutton-in-Ashfield, of Guy's Hospital.
Priestley, John, L.S.A., Greenheys, of the Manchester School.
Shirley, M. Bernard, L.R.C.P. Edin., Leeds, of the Leeds School.
Smith, W. A. Winwood, L.S.A., Kensington-gardens, of St. George's Hospital.
Statham, Reginald W., L.S.A., Walworth, of St. Thomas's Hospital.
Waring, J. Arkle, L.R.C.P. Edin., Princes-gardens, S.W., of St. Bartholomew's Hospital.
Wilson, George, M.B. Edin., Lockerbie, of the Edinburgh School.
Wyborn, Samuel, L.S.A., Windsor, of the Charing-cross Hospital.

Two gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were remanded to their studies, including two for three months, seven for six months, and one for nine months. The following gentlemen were admitted Members on the 14th inst., viz.:—

Aslanian, Bedros, L.S.A., Van, Turkey, student of the London Hospital.
Banham, W. Wilfrid, Barnsley, of the Sheffield School.
Beatley, W. Crump, M.B. Durh., L.S.A., Bloomsbury-square, of the Newcastle School.
Bown, Arthur T., Bath, of St. George's Hospital.
Dacre, John, Leeds, of the Leeds School.
Dale, Walter F., L.R.C.P. Lond., Coleshill, of the London Hospital.
Gunning, T. Archibald, London, of King's College Hospital.
Hall, Alfred, Ashbourne, of the Manchester School.
Harries, H. Jones, Penrith, of University College Hospital.
Hind, Wheldon, Bury St. Edmunds, of Guy's Hospital.
Hoar, C. de Smidler, Campden-hill-gardens, of University College Hospital.
Horrocks, W. Henry, Liverpool, of University College Hospital.
Maye, John, L.S.A., Kings-bridge, of the London Hospital.
Myles, J. Percival, L.R.C.P. Lond., Bristol, of the Bristol School.
Porter, G. David, Abbey-gardens, of King's College Hospital.
Price, Thomas W., Birmingham, of the Birmingham School.
Salter, G. Herbert, L.R.C.P. Edin., Mount-street, W., of St. George's Hospital.
Sells, Herbert T., Merrick-square, of Guy's Hospital.
Smith, James E., L.S.A., Hammersmith, of the Charing-cross Hospital.
Sturdevant, Septimus, Birmingham, of the Birmingham School.
Winder, W. Henry, Manchester, of the Manchester School.

Four gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and five candidates were referred, viz., one for three months and four for six months.

Examination Questions.—At the pass examinations for the diploma of Membership, which was commenced on the 10th inst., there were ninety candidates, of whom twenty-three were rejected. The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery sub-

mitted at the written portion of the examination, when answers to at least four (including one of the first two) out of the six questions were required, between 1.30 and 4.30 p.m., viz.:—1. Mention the parts in contact with the glutæus maximus muscle. 2. Name in order the structures that must be divided in amputation of the forefinger at the metacarpo-phalangeal articulation. 3. Mention the principal circumstances in which an abscess is likely to be followed by a sinus or fistula. 4. Mention the causes of epididymitis. Give the course, diagnosis, and treatment of the disease. 5. Describe paronychia and its treatment. 6. Describe the clinical characters, especially in reference to diagnosis, of epithelial ulcer of the tongue. The following were the questions on Midwifery and the Diseases of Women. Candidates were required to answer three out of the four questions from 12.30 to 2 p.m., viz.:—1. What is the effect of ergot upon the process of labour? In what circumstances would you administer this drug? and what conditions would you regard as contra-indications to its use? 2. In what circumstances is decapitation of the fœtus required? How would you perform this operation? 3. What are the causes of chronic ovaritis? By what symptoms and signs would you recognise this condition? How would you treat it? 4. State the common causes, and describe the preventive treatment, of mammary abscess. The following were the questions on the Principles and Practice of Medicine (candidates were required to answer three out of the four questions, between 2.30 and 4.30 p.m., including No. 4):—1. Describe the symptoms and course of typhoid fever, touching upon its distinctions from diseases which resemble it, its treatment, and post-mortem appearances. 2. Indicate the symptoms, course, complications, and treatment of rheumatic fever. 3. What are the pathological conditions and clinical results of extravasation of blood within the cranium? 4. State the composition, doses, and uses of the following preparations:—Pulv. ipecacuanhæ co., pulv. jalapæ co., pulv. kino co., pulv. elaterii co. Name the preparations, with their doses, of the following drugs, and give the general effects and uses of each drug:—Digitalis, antimony, arsenic, colchicum, and aconite.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, November 6, 7, 8, and 9, the following candidates were successful:—

For the Licence to practise Medicine—

Bolger, J. T., Campbeltown, N.B.
Clancy, John, Listowel.
Cooper, Robert Edmund, Toronto, Ontario, Canada.
Cock, Julia, London.
Garland, John Peter, Dublin.
Morris, James Aloysius, Dublin.
Shea, John Goodwin, Dublin.

For the Licence to practise Midwifery—

Bolger, J. T., Campbeltown, N.B.
Clancy, John Listowel.
Cock, Julia, London.
Cooper, Robert Edmund, Toronto, Ontario, Canada.
Fisher, Vicars Henry, Portarlington, Queen's co.
Garland, John Peter, Dublin.
Morris, James Aloysius, Dublin.
Shea, John Goodwin, Dublin.

The following Licentiates in Medicine of the College, having complied with the By-laws relating to Membership pursuant to the Supplemental Charter of 1878, have been duly enrolled Members of the College:—

Dyas, William, Licentiate 1864, London.
Flinn, David Edgar, Licentiate 1874, Kingstown.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 9:—

Aslanian, Bedros, 37, Dixon-street, Lower Marsh, S.E.
Holdsworth, William, Freeman-street, Grimsby.
Jacob, Arthur Howard, Bernard-street, Russell-square, W.C.
Llewellyn, James Davies, Glyn-neath, Glamorganshire.
Mosse, Herbert Henry, Sutton, Surrey.
Peskett, Arthur William Chalmers, Burgoyne House, Southsea.
Robinson, William, 110, Great College-street, N.W.
Sturges, Frank, Beckenham, Kent.
Wheatly, Arthur William, Brailes, Warwickshire.
Young, William Henry Frome, Paxton-place, Brighton.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Gilkes, Norton Gilbert, London Hospital.
Stevenson, William Dymes, Middlesex Hospital.

NAVAL, MILITARY, ETC., APPOINTMENTS.

ADMIRALTY.—James Jenkins, Esq., C.B., M.D., retired Inspector-General of Hospitals and Fleets, to be Honorary Surgeon to Her Majesty, vice Dr. Johnson, deceased. Samuel Sloan Dalzell Wells, Deputy Inspector-General of Hospitals and Fleets, has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with Seniority of November 10, 1882.

BIRTHS.

GANGE.—On November 9, at Court-street, Faversham, the wife of Frederick A. Gange, M.D., of a son.

KIDD.—On November 5, at 63, Brook-street, W., the wife of Percy Kidd, M.B., of a son.

LITTLE.—On November 9, at Dalkeith Lodge, Merton-road, Wimbledon, the wife of Edward Little, M.D., of a son.

LYDALL.—On November 10, at Mecklenburgh-square, the wife of W. H. Lydall, L.R.C.P., M.R.C.S., of a son.

NAISMITH.—On November 9, at Ayr, N.B., the wife of W. J. Naismith, M.D., C.M., of a daughter.

ROSSITER.—On November 10, at Cairo Lodge, Weston-super-Mare, the wife of G. F. Rossiter, M.B., of a son.

WYNDOWE.—On November 12, at Barhaston Lodge, Bath, the wife of S. Jardine Wyndowe, M.D., Deputy Surgeon-General retired, of a daughter.

MARRIAGES.

ADDAMS—HARTLEY.—On November 9, at Malton, Yorkshire, J. Bishop Addams, Esq., of Tandridge, Surrey, to Amy, eldest daughter of Joshua Hartley, M.R.C.S., of Malton.

ALLT—NEVE.—On November 8, at Aldergate, Nathaniel William Allt, L.K.Q.C.P., L.M., L.R.C.S. Ire., of Poplar-place, Wittersham, Kent, to Catherine Fanny, eldest daughter of M. T. R. Neve, of Wittersham.

BENTHAM—SHARP.—On November 2, at Hong-kong, Robert Bentham, Surgeon Royal Navy, son of Robert Bentham, M.D., of London, to Ellen Lydia, daughter of the late Frederick Sharp, Esq., of Norwich.

EXHAM—KNAGGS.—On September 30, at Chanhutta, Runkhet Himalayas), Richard Exham, L.R.C.P., etc., Army Medical Department, to Edith Alice Constance, eldest daughter of Surgeon-Major Knaggs, Army Medical Department.

NAISMITH—DENNY.—On November 7, at Wardlet, Dumbarton, Thomas Goodall Naismith, M.B., C.M. Edin., of Cowdenbeath, Fifeshire, to Violet Nicol, elder daughter of the late Archibald Denny, Esq., shipbuilder, of Dumbarton.

PICKUP—ALCOCK.—On November 7, at Walstanton, William J. Pickup, M.B., of Coventry, to Emily, fourth daughter of Joseph Alcock, Esq., J.P., of Porthill, Staffordshire.

WARD—TUKE.—On November 13, at Edinburgh, Alfred Ward, M.B., of Anston, Yorks, to Emily Elizabeth, only daughter of John Batty Tuke, M.D., F.R.C.P., of Charlotte-square, Edinburgh.

DEATHS.

ASKHAM, HENRY FRANCIS, M.R.C.S., at Clovelly House, Woking Station, Surrey, on November 9, aged 47.

BOYD, ISABELLA, wife of Robert Boyd, M.D., of 1, Bolton-row, Mayfair, and Southall Park, Middlesex, on November 10.

CROFT, JOHN HENRY, M.R.C.S., L.S.A., at Bicester, on November 10, aged 42.

DE GRAVE, JOHN FRANCIS, M.D., M.R.C.P., M.R.C.S., past Master of the London Society of Apothecaries, at 13, Morland-road, Croydon, on November 13, in his 92nd year.

KINGSTON, PETER NUGENT, M.D., late Consulting Physician at Westminster Hospital, at Church Lawford Rectory, Warwickshire, on November 11, aged 77.

WATSON, SARAH MARIA, wife of Edward Watson, M.R.C.S., late of North Somercotes, Lincolnshire, at Isleham, Cambridgeshire, on November 4, aged 52.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

AYRSHIRE DISTRICT ASYLUM, NEAR AYR, N.B.—Assistant Medical Superintendent. Salary, to commence, £80 per annum, with board and lodging. Dr. C. H. Skae, Medical Superintendent, will furnish any information required, and applications are to be sent to Mr. C. G. Shaw, Clerk to the Board, County Buildings, Ayr, by November 22.

BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent. Salary £150 per annum, with board and washing. Candidates must be legally qualified medical practitioners, over twenty-five years of age, and must furnish testimonials as to moral character and professional ability. No private practice allowed. Applications, stating age, to be made to the Secretary, Mr. C. V. Woodcock, Albany-buildings, Bradford, on or before November 21.

HOSPITAL FOR WOMEN, SOHO-SQUARE, W.—Assistant-Physician. (*For particulars, see Advertisement.*)

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Senior Resident Medical Officer. Salary £240 per annum, with unfurnished house, part midwifery and vaccination fees. Candidates must be duly qualified. Applications, with testimonials, stating if married, to be sent to William Holloway, Secretary, Newton Cottage, Pimmoll-street, Kidderminster.

LAMBETH (PARISH OF).—Assistant Medical Officer and Dispenser. (*For particulars see Advertisement.*)

POPLAR HOSPITAL FOR ACCIDENTS.—House-Surgeon. Salary £100 per annum, with board, etc. Candidates must possess the medical and surgical qualifications approved by the Medical Council as qualifying to practise. Applications, with testimonials (not more than three), to be sent to the Secretary, at the Hospital, on or before November 21.

WESTMINSTER HOSPITAL, BROAD SANCTUARY, S.W.—Resident Obstetric Assistant. Candidates must be gentlemen who have completed their medical education at Westminster Hospital. They must be legally qualified to practise medicine or surgery. The appointment will be for six months, and board and residence in the Hospital will be provided. Applications to be sent in on or before November 23.

WESTMINSTER HOSPITAL, BROAD SANCTUARY, S.W. — Junior House-Physician. Candidates must be gentlemen who have completed their medical education at the Westminster Hospital. They must be legally qualified to practise medicine, and must produce certificates of having served the office of clinical clerk in some recognised hospital for a period of not less than six months. The appointment will be for six months, and board and residence in the Hospital will be provided. Applications to be sent in on or before November 25.

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh, but no candidate shall be eligible who practises or is connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be forwarded to Robert Holtby, Secretary, on or before December 8. The election will take place on December 12.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Alnwick Union.—Dr. Candlish has resigned the Alnwick District and the Workhouse: area 20; population 6864; salary £30 per annum. Salary for Workhouse £50 per annum.

Lincoln Union.—Mr. William Bower has resigned the Fifth District: salary £30 per annum.

Lutterworth Union.—Mr. J. B. Waterhouse, Medical Officer for the Third and Fourth Districts, is deceased: area 12,426; population 2274; salary £66 per annum.

Upton-upon-Severn Union.—Mr. John Selwyn Cowley has resigned the Third District: area 11,635; population 2210; salary £85 per annum.

Wandsworth and Clapham Union.—Mr. H. L. F. Hardy has resigned the office of Assistant Medical Officer at the Infirmary: salary £120 per annum with board and lodging.

APPOINTMENTS.

Kendal Union.—John C. Carden, L.R.C.S.Edin., L.R.C.P. Edin., to the Milnthorpe District and the Workhouse.

Malton Union.—Parker A. Smith, M.D. Queen's Univ. Ire., L.R.C.S.E., to the Bulmer District.

St. Mary, Islington, Parish.—Philip Cowen, M.R.C.S. Eng., L.S.A., to the Shadwell-road Workhouse.

PROFESSOR FLOWER, LL.D., F.R.C.S.—The many friends of the distinguished Conservator of the Hunterian Museum of the Royal College of Surgeons will be glad to hear, as we suggested last week, that amongst the medals in the gift of the Royal Society—of which learned body Mr. Flower is a Fellow—about to be presented is one to this gentleman for his valuable contributions to the morphology and classification of the mammalia and to anthropology.

THE PRAGUE UNIVERSITY.—The oldest University of Germany—Prague—has ceased to be a German university. The Upper House in Vienna has passed a law that from October 1 the lectures must be given in the Czechic language, and the examinations passed in the same tongue. This is perhaps the most foolish law ever passed by legislators. Who speaks or reads the Czechic language? Besides Latin there are only three languages universally known—English, French, and German. This decree will be the death-blow of Prague, of which some said that it was going ahead. Since the loss of Klebs and Eppinger whom have they left?—*Phil. Med. Reporter*, September 30.

THE LIEUTENANCY OF LONDON.—Amongst several gentlemen nominated for the Lieutenancy of London by the Right Hon. the Lord Mayor, whose list has received the sanction of Her Majesty the Queen, is Dr. Thomas Boor Crosby, who was admitted a Member of the Royal College of Surgeons May 21, 1852, and a Fellow, by examination, December 6, 1860. Dr. Crosby, who graduated M.D. St. And. in 1862, contributed a paper on epilepsy to the *Medical Times and Gazette* in 1861.

SUDDEN DEATH IN OSSIFICATION OF THE CORONARY ARTERIES.—The *Philadelphia Medical Reporter* (October 7) observes that instances of sudden death occur in which persons die with symptoms of embolism, or heart-thrombosis, or of apoplexy, without corresponding post-mortem appearances being detected, ossification of the coronary arteries or of the cerebral vessels only being discovered, which seemed insufficient to account for sudden death. Cohnheim, however, in the new edition of his Pathology, gives us the explanation of this fact. He tied the coronary arteries, and found, to his surprise, that without giving rise to any prodromic symptoms of debility of the heart, the organ came abruptly to a standstill during diastole. We can see how a gradually progressing sclerosis of the coronary arteries may suddenly occlude these vessels totally, and cause instantaneous death. Certainly, such cases do not happen frequently, as usually the ossification in one artery goes on more rapidly than in the other, and we have then premonitory symptoms of failure of the heart's action; but often enough the process progresses symmetrically, and then we have such a sudden death. The same explanation holds good for similar conditions in the vessels of the brain, i.e., the large arteries.

PROFESSOR OLIVER WENDELL HOLMES, M.D., has resigned the Parkman Professorship of Anatomy in Harvard University, a position he has occupied for thirty-five years. No teacher of anatomy ever brought such varied and extensive learning or more attractive diction with which to invest his subject than did Prof. Holmes in this capacity. To many instructive facts which he has contributed to medical science he has added numerous scholarly addresses, and the romance of "Elsie Venner," all of which have delighted thousands of his medical brethren. The profession will unite in wishing for him much peace and pleasure in those elegant literary labours to which he will devote the evening of his life.—*Louisville Med. News*, October 28.

APPOINTMENTS FOR THE WEEK.

November 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

20. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Dr. Haward will show a Man with Intra-thoracic Aneurism. Dr. Frederick Hicks will show Instruments for the Treatment of Intra-thoracic Abscess. Dr. Thorowgood, "Remarks on the Treatment of Intra-pleural Effusions."

21. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8½ p.m. Specimens: Dr. Bedford Fenwick—Fatty Degeneration of Walls of Heart. Dr. Horgan—Microscopical Specimens of a New Disease of the Lymphatics. Dr. G. C. Henderson—1. Embolus from the Left Auricle of Heart; 2. Syphilitic Gumma in Wall of Left Ventricle. Mr. Roger Williams—1. Testis in the Perineum, with Congenital Hernia; 2. Unusual Form of Growth in the Bladder. Mr. J. B. Sutton—Rickets in a Baboon.

22. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON, 4 p.m. Lectures and Demonstrations: Dr. C. Theodore Williams.

HUNTERIAN SOCIETY, Royal Institution, 8 p.m. Mr. J. Hutchinson, "On Certain Diseases allied to Erysipelas."

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

HARVEIAN SOCIETY, 8½ p.m. Mr. Henry Power, "On Ophthalmic Medicine and Surgery in relation to General Practice." (Harveian Lecture—I.)

24. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

QUEKETT MICROSCOPICAL CLUB (University College, Gower-street), 8 p.m. Mr. B. W. Priest, "On the Statoblasts of the Fresh-Water Sponges."

CLINICAL SOCIETY OF LONDON, 8½ p.m. Dr. Cavafy, "On Two Cases of Symmetrical Congestive Mottling of the Skin" (patients will be shown). Mr. J. E. Adams, "On a Case of Lumbar Nephrectomy for Carcinoma." Mr. R. J. Godlee, "On Two Cases of Intussusception in Infants treated by Abdominal Section." Dr. Dyce Duckworth, "On Two Cases of Subcutaneous Rheumatismal Nodes" (one of the cases will be exhibited).

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 11, 1882.

BIRTHS.

Births of Boys, 1319; Girls, 1390; Total, 2709.
Corrected weekly average in the 10 years 1872-81, 2759·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	784	709	1493
Weekly average of the ten years 1872-81, corrected to increased population ...	855·1	831·9	1687·0
Deaths of people aged 80 and upwards ...	...	...	43

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	10	5	4	2	...	7	...	2
North ...	905947	1	19	19	4	1	...	9	1	3
Central ...	252238	...	8	3	2	1	...	4	1	...
East	692738	...	11	21	4	3	...	5	1	4
South	1265927	3	9	22	5	6	1	7	1	8
Total	3816483	4	57	70	19	13	1	32	4	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·531 in
Mean temperature	43·5°
Highest point of thermometer	60·1°
Lowest point of thermometer	35·6°
Mean dew-point temperature	41·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·60 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 11, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Nov. 11.	Deaths Registered during the week ending Nov. 11.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2709	1493	20·0	60·1	35·6	46·5	8·06	0·60	1·52
Brighton ...	109595	77	27	12·9	60·0	35·0	46·9	8·28	0·60	1·52
Portsmouth ...	129916	94	52	20·9	...	...	...	...	...	...
Norwich	88821	66	28	16·5	...	...	...	...	...	...
Plymouth	74424	41	32	22·4	60·0	39·7	48·5	9·17	1·29	3·28
Bristol	210134	145	85	21·1	60·1	37·0	45·5	7·50	2·15	5·46
Wolverhampton .	76756	52	23	15·6	57·8	31·2	42·2	5·67	0·93	2·36
Birmingham ...	408532	317	168	21·5	...	...	...	...	...	...
Leicester	126275	102	38	15·7	58·8	33·5	43·7	6·50	1·12	2·84
Nottingham ...	193373	139	84	22·6	60·1	33·0	43·0	6·11	0·94	2·39
Derby	83587	61	30	18·7	...	...	...	...	...	...
Birkenhead ...	86582	69	46	24·1	...	...	...	...	...	...
Liverpool	560377	417	363	23·2	58·0	35·9	43·7	6·50	1·36	3·45
Bolton	106767	85	38	18·6	55·7	32·0	41·1	5·06	2·16	5·49
Manchester ...	340211	240	185	28·4	...	...	...	...	...	...
Salford	184004	155	79	22·4	...	...	...	...	...	...
Oldham	115572	65	45	20·3	...	...	...	...	...	...
Blackburn	106460	78	50	24·5	...	...	...	...	...	...
Preston	97656	79	50	26·7	...	...	...	...	...	...
Huddersfield ...	83418	62	33	20·6	...	...	...	...	...	...
Halifax	74713	54	27	18·9	...	...	...	...	...	...
Bradford	200158	110	76	19·8	56·2	37·2	43·8	6·56	1·69	4·29
Leeds	315998	246	162	26·8	59·0	37·0	45·1	7·28	1·09	2·77
Sheffield	29. 516	229	124	22·3	59·0	36·0	43·5	6·39	1·63	4·14
Hull	158814	117	79	26·0	...	...	...	...	...	...
Sunderland ...	119065	93	74	32·4	59·0	32·0	44·4	6·89	0·90	2·29
Newcastle	147626	101	50	17·7	...	...	...	...	...	...
Cardiff	88724	63	47	28·3	...	...	...	...	...	...
For 28 towns ...	8469571	6058	3522	21·7	60·1	31·2	44·5	6·95	1·27	3·23
Edinburgh	232440	139	77	17·3	54·4	31·2	41·0	5·00	1·03	2·62
Glasgow	514048	372	236	24·0	57·5	30·0	40·7	4·83	1·90	4·83
Dublin	349293	150	185	27·7	58·9	27·5	41·8	5·45	0·79	2·01

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·53 in. The highest reading was 29·96 in. on Monday morning, and the lowest 29·09 in. on Thursday morning.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

[*Communicated.*]

A War Office Mystery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was on duty the other day at a coroner's inquest held on a German bandsman, who suddenly dropped down dead in Pall-mall, soon after hurriedly leaving the War Office. It transpired that he had only lately joined the band, and was considered a poor musician, but he was retained out of respect for his feelings, as he asserted himself to be a lineal descendant of Mozart, first cousin to Beethoven, and nephew to Mendelssohn. Nothing was found on the body excepting the print of a nail-studded boot on what the doctor called his "nates," a meerschaum pipe, a volume of Baron Munchausen's travels, and some MSS. illegibly addressed to the editor of some "Cologne" newspaper. It struck me that if a translation of the MSS. appeared in your paper it might attract the attention of the person to whom it should have been sent, and a German baker, a friend of mine, has put it into this English shape, which I respectfully forward.

Yours obediently, Thomas Bumble.

Translation of Fragment of Letter marked No. 1, *from a German Editor.*

The tender German heart has to its depths been stirred by the shocking details of the fight at "Tel-el-Kebir," furnished by our own correspondents. Your brother in particular distinguished himself by his wonderful powers of observation and graphic description. His account of the British officers picking the pockets of the wounded Pashas was thoroughly artistic, and the story of the Highlanders denuding the fellahs of their trousers bore the stamp of truth on the face of it. His narrative of the detection of the senior medical officer, armed with a chisel, extracting a sack-full of splendid teeth from the Nubian dead, sent a thrill of horror, however, through the Fatherland. It was natural that the officers should spoil the Egyptians and one could excuse the Highlanders, as, although their costume is well adapted for the treatment of the favourite disease of their native land, it is still unsuited to a fly-producing country like Egypt. But the conduct of the doctors is so unusually revolting even for members of that so-called profession, that it was evident England would not be able to resist European opinion, and I am not surprised to find that a "Committee" has been appointed at the War Office to inquire into the conduct of the Army Medical Department. I have therefore determined to appoint you a "special" to report the proceedings to this journal, and would suggest you should disguise yourself as a German bandsman, in order to obtain admission to the secret chamber, as I am credibly informed that any member of a "brass band" can claim a right to knock at any door and refuse to leave any premises.

Translation of Memorandum marked No. 1.

Accepted appointment as special. Joined German band. Cannot play a note, nor can any of the others. Entered War Office; looked about; passed round my hat; collected 3s. 4d. in coppers. Lot of people waiting to complain of doctors,—some women: got into conversation with one, *not* a widow. Complained of conservative surgery. Ach Gott! how politics pervade English life! Said her husband had both his knees and elbows resected, and was come back on her hands as helpless as a starfish! I fancy conservative doctors will have a hard time of it with a Liberal Committee.

Memorandum No. 2.

War Office.—Sneaked unobserved into a cupboard in committee-room. Proceedings very quiet. No bad language. Can't see very well, but think the Commander-in-Chief is not a member. Old "surgeon-general" under examination; confessed he had charge of a base hospital, and was unprovided with zoedone, champagne, burgundy, and chartreuse. Could give no reason for this neglect of patients, excepting that all these things were in the hold of a store ship, twenty-five miles away, stowed carefully under a cargo of rails and sleepers for railway. Blamed the unification system. Called attention to Sir J. McGrigor's report on *his* experience during the small wars of the Peninsula. Said if unification was to be the rule it would be necessary to make it a reality, and not a sham; and that there must be a Medical Transport and Commissariat Service, to be solely commanded by a medical officer.

Some confusion. Think one of the Committee fainted. After a pause, doctor ordered to retire.

Memorandum No. 3.

In the cupboard again. General de Boots under examination. Said regimental system or unification all the same as far as doctoring went. Considered them a bad lot. Had heard that, in the old Sikh campaigns, amputations had been performed at "Aliwal" with the mess carving-knives! Would not mention the name of the regiment, as the knives might be in use now for anything he could tell; all he knew was that he would never dine at their mess. Asked if he would allow doctors to exercise control in matters of transport—said, "Decidedly not; the doctors were too bumptious already, and wanted to regulate the universe." Instanced that at his club the other night, while he was explaining to the Bishop of —— the only way to reconcile the Eastern and Western churches, as proved by his pamphlet lately published by Rivington, he actually overheard an army doctor discussing the best form of Gatling gun! Had always observed this wish to lay down the law on matters unconnected with their profession was *exclusively confined* to the members of the Army Medical Department! Asked for suggestions as to improving medical officers—answered, "Cut the face off their uniforms, take away their cocked hats, deprive them of horse allowance, and put them back to the position they occupied in the good old days when vassals followed their feudal lords to the field, and doctors got fourpence a day, and twopence a day extra when allowed the privilege of shaving their masters." Requested to retire, and thanked by Committee. After he had gone, heard some one say, "De Boots is too good! Feudal lord, indeed! Why, his father made a fortune with fried fish in the Minories!"

Memorandum No. 4.

In the cupboard again. Some civilian doctor under examination. Asked if he considered a doctor should exercise direct control, answered, "Yes." Would not himself be answerable for a patient unless his word was *law* in

the sick-room; considered he ought to regulate *everything*—diet, bedding, etc. If he wanted beef-tea and there was none in the house, he would order it in on his own responsibility. It would be monstrous that he should have to apply to *some friend or the family* to send in some beef-tea when he had quite finished *his other business*. Asked if he approved of medical officers wearing uniform, said they must have some distinguishing dress, but did not like the present style. Had heard of a major's lady with her seventeenth child being greatly alarmed by the entrance of the doctor, with a cocked hat, red tunic, brass scabbard, and spurs on. It was not the doctor's fault, as he was "on parade" when s-n" for, but it was awkward. Said he did not believe that the strabismus of the infant was connected with the doctor's appearance, although the mother and nurse always insisted on it. Ordered to retire, and thanked.

Memorandum No. 5.

Surgeon-General recalled. Stated he had heard minutes of evidence, and still retained his opinion that if a doctor was to be answerable for patients he must have control over hospitals and all supplies. Said he did not want *every* medical officer to exercise this or any control; and would be contented that a medical "service" should be formed, to be commanded and officered by combatant officers, but that the *senior* medical officer when on active service must have direct and absolute control. Asked if the medical department would be content to take more feathers or gold lace instead of control—answered that he hated his hat and detested his breeches! All he wanted was to do his work, and not be condemned to make bricks without straw. Asked if medical men expected that complaints would cease if they got direct command—answered, No! Said there were three classes who always disliked doctors: those who had never been sick or wounded, and did not see the use of them; those who had been sick, and wanted to forget all the disgusting details; and the friends of the killed, who, not being able to abuse Providence, tried to wreak their spite on the doctors. Ordered to retire.

Fragment of Letter No. 2 from Cologne Editor.

Received your notes, but they are not spicy enough for German public. Try and find out if Arabi is supposed to be a son of the G—— O—— M——. This would tell well! Also, did Sir G—— W—— always wear Red Cross before and behind him in order to avoid being shot at?

Memorandum No. 6.

Will try my best, but I'm afraid of the hall-porter; he has got his eye on me, and has such enormous boots.

Corrigendum.—In Dr. Norman Chevers's address, "A Glance at the Sanitary Defects of the Site of London and its Environs," page 577, note at foot of second column, *for* "What has become of much of the ground" *read* "What has become of much of the gravel."

Metropolitan Water Companies.—A Parliamentary return lately issued, containing the accounts of the eight metropolitan water companies, shows the results of their working for the year 1881. The amounts are given in considerable detail for the two half-years. It appears that the total capital of all the companies is £12,574,992, while their expenditure has been £12,770,067. Alone among the companies, the New River Company is unrestricted as to the rate of dividend it can pay on its share capital (£2,019,658), the other companies being limited to a maximum of 10 per cent. The returns show that there has been a progressive increase in the income of all the companies.

Great Rainfall.—In an interesting letter by Mr. W. H. Willis in the Yarmouth *Independent*, he states that in that place 5·48 inches of rain were measured for the entire month of October, which is just double the average of Yarmouth for the same month for the last four years.

Prizes.—Essays for the Collegial-Triennial and Jacksonian Prizes of the Royal College of Surgeons must be sent in to the Secretary of that institution on or before Saturday, the 30th prox. Perhaps intending competitors will thank us for the reminder.

Looking up a Local Board.—The Local Government Board has again addressed the Burnham Local Authority respecting the alleged impurity of water in some of the town wells, requiring to be immediately furnished with the results of the analysis and the report of the Medical Officer of Health.

A Grocer's Liquor Licence: Queen's Bench Division.—In this case an application had been made to the resident licensing justices at Polkington, East Riding of Yorkshire, for a licence to sell wine by retail to be consumed off the premises, and also for a similar licence for spirits. The justices refused the application without assigning any reason for their refusal, merely saying that they acted in accordance with their exercise of discretion in the matter; and they threw out an intimation that there was no need for such additional licence in Polkington. Counsel now moved for a rule *nisi*, calling on the licensing justices to show cause why a mandamus should not issue, commanding them to assign their reason for refusing to grant the application. The Court granted the rule.

Humane?—A legislator has introduced into the Vermont Legislature a Bill enacting that in future persons condemned to death in that State shall be rendered insensible by means of anæsthetics before being hanged. It is not thought that the proposal will be accepted.

Duty-free.—The *Revue des Deux Mondes*, in an article on the economical position of Alsace, says that the consumption of brandy has increased more than tenfold during the last ten years—North German brandy being imported duty free,—and there is a consequent increase of drunkenness.

Sanitary Condition of Ventnor.—It is now stated that the Local Board has held a special meeting to consider the recent statements with regard to the sanitary condition of the town, and it was unanimously resolved to take steps to apply to the Court of Queen's Bench for a rule for a criminal information for libel against the authors of the statements.

The Thompson Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We beg to acknowledge the receipt of the following sums of money which have been forwarded in response to the appeal which you were so good as to allow us to make on behalf of the widow and children of the late Dr. Thompson, of Beverley. Mrs. Thompson wishes us to say that she is deeply grateful to those who have so generously aided her in her time of need.

We are, &c.,
HENRY WALKER, M.D.
Beverley, November 12. E. D. TOMLINSON, Brigade Surgeon H.P.

	£	s.	d.
A Friend	1	0	0
Dr. E. A. Kirby, Beckenham	1	1	0
Mrs. Nuttall, Bradford	5	0	0
K., Taunton	0	4	0
A. B.	2	2	0
A. M. B., M.A.	0	5	6
A. Hill, Esq., Welton	2	2	0
H. Stear, Esq., Saffron Walden	2	2	0
Dr. Mackie, Bedford	0	10	0
J. P. Carter, Esq., Chapel Allerton	5	0	0
G. M. Cault, Esq., Wington	4	0	0
W. W. S.	0	10	0

The Blue Ribbon Badge in Workhouses.—The Local Government Board have asked the Chelsea Board of Guardians for an explanation of the conduct of the Workhouse officers in forcibly removing from the breast of an inmate the blue ribbon badge. At a meeting to consider the letter, the Master read a report justifying the orders he gave to his subordinates on the occasion, and pointing out that if religious badges were allowed to be worn in the Workhouse it would lead to acrimonious and noisy discussions. A resolution disapproving of the Master's conduct was moved, but not pressed, a committee being appointed to draft an explanatory letter to the Local Government Board.

Hastings.—The Medical Officer of Health reports to the Town Council that the total mortality among the residential population of the borough during the last quarter was only 12·38 per thousand.

Non-animal Diet.—At the annual meeting of the Vegetarian Society held at Manchester lately, the spread of vegetarian principles within the temperance ranks, the large additional number of vegetarian restaurants in the large towns, the extension of local societies, and the increasing general attention given to the subject, were referred to with much encouragement and satisfaction.

COMMUNICATIONS have been received from—

Dr. J. H. NANKIVELL, York; Mr R. C. LUCAS, London; THE REGISTRAR OF THE APOTHECARIES' HALL, London; THE SECRETARY OF THE ANTHROPOLOGICAL INSTITUTE, London; Messrs. BREITKOPF AND HÄRTEL, Leipzig; Dr. T. OLIVER, Newcastle-on-Tyne; Dr. URBAN PRICHARD, London; Dr. FELIX SEMON, London; Dr. NORRIS WOLFENDEN, London; Dr. THOMAS WHIPHAM, London; (Dr. GEORGE HARLEY, London; Mr. FRANCIS MASON, London; Mr. SYDNEY JONES, London; Dr. SEYMOUR SHARKEY, London; Dr. JAMES PALFREY, London; Mr. HERBERT W. PAGE, London; Dr. J. F. GOODHART, London; Dr. DOUGLAS POWELL, London; Dr. F. WARNER, London; Dr. WILSON FOX, London; Dr. REGINALD SOUTHEY, London; Dr. RADCLIFFE CROCKER, London; Mr. T. COOK, London; Dr. NORMAN CHEVERS, London; THE HON. SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB, London; Mr. J. CHATTO, London; THE HON. SECRETARY OF THE MEDICAL SOCIETY OF LONDON; Dr. HOWDEN JONES, London; Dr. HENRY WALKER, Beverley; Dr. ROUSSEL, Paris; Dr. H. RAYNER, Hartwell; Dr. WM. ANDERSON, London; Dr. THOS. BOND, London; Mr. J. S. WOOD, London; Messrs. TURNBULL AND WOOD, Newcastle-on-Tyne; Dr. J. BRAXTON HICKS, London; Dr. O. PAVIN STURGES, London; Mr. MALCOLM MORRIS, London; Dr. MOORE, Dublin; Dr. ALEXANDER JAMES, Edinburgh; Dr. J. MATTHEWS DUNCAN, London; THE SECRETARY OF THE CLINICAL SOCIETY OF LONDON; THE SECRETARY OF THE LONDON SOCIETY FOR THE ABOLITION OF COMPULSORY VACCINATION; Mr. CARL HANSEN, London; Dr. DAVID W. FINLAY, London; THE HON. SECRETARY OF THE PATHOLOGICAL SOCIETY OF LONDON; THE HON. SECRETARY OF THE HARVEIAN SOCIETY OF LONDON.

BOOKS, ETC., RECEIVED—

Diseases of the Liver, by Dr George Harley, F.R.S.—Report on the Sanitary Condition of the Whitechapel District for the Quarter ended September 30, 1882—The Germ Theory of Phthisis Verified, by Wm. Thomson, F.R.C.S.—A Momentous Education Question, etc., by P. A. Sidjstrom—The Micrographic Dictionary, parts 14, 15, 16, 17—Spinal Curvature, by R. Heather Bigg—Un Nouveau Médicament Cardiaque; Recherches sur le Convallaria Maialis, par M. Germain Sée—Des Pneumonies Infectieuses, par le Docteur Ch. Talamon—Annual Report of the Taunton Sanitary Hospital for the Year 1881-82—Reduplication or Doubling of the Cardiac Sounds, by James Barr, M.D., L.R.C.S.—Some Points on the Administration of Anæsthetics, by George H. Robé, M.D.—Use of the Perseur for curing Deep-seated Fistula in Ano, by J. M. F. Gaston, M.D.—Metropolitan Sewage, etc., by Edward Monson.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinisch. Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Students' Journal and Hospital Gazette—Lincolnshire Chronicle, November 10—Medical Register—Western Gazette, November 10—Centralblatt für Klinische Medicin—Revista de Medicina—Glasgow Herald—Canadian Journal of Medical Science—Archives de Neurologie—Our Happy Family—Cassell's Illustrated Almanac—Boston Journal of Chemistry, etc.—Journal of the Vigilance Association—North Carolina Medical Journal—Journal of the British Dental Association.

ORIGINAL LECTURES.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow; Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

LECTURE XIV.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

2. *Syphilitic Affections of the Skin.*

vi. *Bullous Syphilides* (Pemphigus Syphiliticus).

THE existence of such eruptions is denied by most authorities, *e.g.*, by Bazan, Hardy, Cazenave, Devergie, and Gibert, but it is admitted by Neumann and Fox, as well as by Ricord, who has given the history of a case accompanied by an admirable illustration of the disease as it attacked the foot, in his splendid treatise on Venereal Diseases.(a) It is a rare disease, but I have seen several cases, one of which may be mentioned. A gentleman aged about twenty-five, of fair general health, contracted a chancre in 1862, which was followed by secondaries, for which he was treated by mercury and iodide of potassium. In November, 1863, I treated him for syphilitic disease of one testicle, which entirely disappeared in a few weeks under the use of iodide of potassium.

On January 11, 1864, I was sent for to see him, when the following were the appearances:—I detected a few pustules amongst the hairs and on the face. On the elbows, wrists, hands (especially palms), and on the knees, ankles, and feet, large coppery patches were seen, with pustules scattered here and there. On the palms and soles the skin was undermined in streaky patches by purulent matter. On and about the hands and points of fingers, and in the neighbourhood of the ankles, a number of bullæ containing clear serum were detected—about two dozen in all. These varied in size from a small bean to a large hen's egg, and exhibited different stages of development, some being very tense, others flaccid, especially those on the points of the fingers. A very few bullæ were detected on the arms and legs, and on the scrotum. There were none on the trunk of the body with the exception of a few on the back, but two or three on the lips, which extended for some distance over the mucous membrane on their inner surfaces.

The throat was unaffected, and the only other sign of Syphilis detected was one enlarged gland at the back of the neck. The irritation of the eruption at some points, especially on the scrotum and hands and feet (the palms and soles excepted), was sometimes intolerable, so that the patient could not refrain from scratching and rupturing the bullæ.

The bullous eruption first made its appearance on January 8, at which period the patient stated that "the palms of the hands felt as if they had been sleeping, or had been stung with nettles, and the soles of the feet as if I had been standing on hot bricks." It was preceded by several days of intermitting febrile symptoms, accompanied by long-continued chills, headache, pains in the joints, loss of appetite, restlessness, and debility.

An eighth of a grain of bichloride of mercury in extract of cinchona was prescribed three times a day, and a soothing ointment applied to the parts when itchy. By the 30th the eruption had almost completely disappeared, though a few new bullæ and pustules had formed since the 11th. I now ordered him, in addition, to apply a piece of flannel about four inches broad round the body, and to smear the inside of it night and morning with a piece of mercurial ointment about the size of a bean. On February 22, when I next saw him, the eruption was completely gone, and on May 17, when he last visited me, he remained quite well.

The diagnosis from *Pemphigus Vulgaris* can readily be made by the history of infection, followed by the bullous eruption along with other characteristic secondary symptoms; by the special tendency which the bullæ have to appear on, and in the vicinity of, the hands and feet; by their being situated on a coppery base, yielding readily to anti-syphilitic treatment, leaving coppery stains, and, when once fairly gone, never reappearing.

vii. *Pustular Syphilides.*

There are several varieties of these, one of which is a distinctly secondary eruption, and is described under the head of the papular syphilides (see Lichen Syphiliticus Pustulosus, page 520), while the others generally appear as tertiary manifestations, or in the transition stage between the tertiary and secondary symptoms, especially when the general health is much deteriorated, and are described under the name of *Ecthyma Syphiliticum*. This eruption, which is commonest on the head and extremities, appears in the shape of dusky-red spots, on each of which a large, often flaccid, pustule forms, or occasionally, instead of a pustule, a small flaccid bulla. Each is surrounded by a dusky-red or coppery areola, and the contents soon dry up into a thick, rough, very adherent, greenish crust, which, if picked off, is apt to be soon replaced. Sometimes the crust becomes very prominent and stratified, owing to the drying-up of successive secretions beneath the primary one, each incrustation being broader than that which preceded it: it then resembles an oyster or limpet-shell, and to this variety the term Rupia Syphilitica the pustulo-crustaceous syphilide of the French) has been applied. In the advancing stage, on the removal of the crust, ulcers, such as those already described as characteristic of Syphilis (page 404), are found, which, when they heal up, leave characteristic cicatrices (page 404). Sometimes the ulcers of neighbouring patches coalesce, and thus assume a serpentine shape, constituting one variety of syphilitic serpiginous ulceration, the elementary lesion of which, however, is more frequently a tubercle (see Tubercular Syphilides). This eruption usually occurs in broken-down constitutions, and is a serious one in so far as it leaves indelible cicatrices, and is an indication that the general health is much deteriorated.

Ecthymatous pustules and crusts are apt to appear in non-syphilitic subjects, especially in those whose health is deteriorated by bad diet, intemperance, etc., and who are uncleanly, or who are affected by Scabies or other itchy eruptions, and may be mistaken for Syphilitic Ecthyma. The following points are of service in the diagnosis:—

Ecthyma Cachecticum.	*Ecthyma Syphiliticum.*
1. Commonest on lower extremities and hips—never on face.	1. May affect any part, and not uncommon on face.
2. Ulcers not so prominent a feature, and their character depends on the general state of patient.	2. Ulceration characteristic of Syphilis (see page 404).
3. Surrounded by a reddish areola.	3. Surrounded by a coppery areola.
4. The crusts brownish and rarely rupiform.	4. The crusts greenish or blackish, thick, rough, very adherent, and often rupiform.
5. Cicatrices present no special features.	5. Cicatrices coppery, or white with coppery edges.
6. Occurs in broken-down subjects, or in those affected with some itchy eruption, such as Scabies.	6. Occurs in persons tainted with Syphilis, and usually the subjects of other syphilitic manifestations.
7. Heals readily under simple local treatment and attention to the general health.	7. Cured by anti-syphilitic remedies.

Sometimes a pustular syphilide resembles patches of *Scrofuloderma*, but the latter occurs in strumous subjects, who may present other unmistakable symptoms of Scrofula; the patches, too, are violet or vinous in tint, with a tendency often at parts to warty formation; the ulcers are irregular with undermined edges, and have a tendency to throw out profuse granulations. The cicatrices, too, are sometimes characteristic, there being a great tendency to the throwing out of little tongues of cuticle, sessile or pedunculated, or to the development of bridles of skin, under which the probe can often be passed. The disease is unaffected by anti-syphilitic treatment, but responds slowly to the use of anti-strumous remedies and caustics.

(a) "Traité complet des Maladies Vénériennes." Paris, 1851, planche xxv.

Rupia Syphilitica must not be mistaken for that form of Psoriasis which I have described under the name of Psoriasis Rupioïdes,(b) the only resemblance being in the shape of the crusts, which, however, are whitish, and composed of epithelium, and not of desiccated secretion: and on their removal a red, and perhaps bleeding, surface is exposed to view, but there is no trace of ulceration. The other characters of ordinary Psoriasis are also usually well marked (see chapter on Psoriasis).

ORIGINAL COMMUNICATIONS.

CLINICAL MEMORANDA OF PRACTICE IN INDIA.

By Surg.-Gen. C. R. FRANCIS, M.B. Lond., F.U.C.

CONSERVATIVE CARDIAC HYPERTROPHY.

GENERAL P., a retired officer of the Indian Service, suffers occasionally from what he terms "general seediness." When this officer first came under my observation in India in 1844—he being then twenty-one, and recently married,—he was ailing from what was said to be "liver complaint." The chief symptom was dull pain and a feeling of weight in the hepatic region. On inquiry it appeared that four years previously he had been laid up with an attack of rheumatic fever, and that the heart was also affected. I found this organ beating somewhat tumultuously, with other signs of hypertrophy consequent upon an adherent pericardium. The patient stated that ever since the attack of rheumatic fever he had been apt to ail as he was then ailing. The circulation being hampered at the fountain-head, congestions took place in its rear, so to speak. Not only did the liver become congested, but the bronchial tubes were irritated by an excess of secretion, especially during the night, making it necessary to "clear the pipes" every morning. The eyes would often at these times look as if there had been unusual conviviality at mess the night before. There was also a tendency to diarrhœa. I explained to (the then) Ensign P. the nature of his case, and cautioned him against irregularities of every description, impressing upon him that, whatever other young men might do with impunity, he should on no account attempt to take the slightest liberty with himself. Abstinence from alcohol was likewise enjoined.

The patient has, in the main, attended to my instructions, and in consequence been fairly well during a lengthened service in India, rising to high position, and finally retiring with every prospect of reaching the full term of years allotted to man upon earth. The indications of treatment have been, obviously, besides attending to hygiene and diet, to equalise the circulation and promote the due performance of the several functions. I have examined this officer from time to time during the past thirty-eight years, and it has been exceedingly interesting to observe how the conservative hypertrophy, having brought the system into a state of comparative health, has throughout maintained it. For several years past the impulse of the heart, though forcible, has been uniform, and palpitations (which, it should have been mentioned, were at one time rather distressing) have long ceased.

I have made a point of keeping this officer under observation since I first became acquainted with him; and, as a rule, whenever he has been out of health, he has written to me. According to the symptoms of the hour, he has been variously treated by the several medical officers attached to his "whereabouts" at the time—now for liver, now for kidney, now for dyspepsia. All probably due to some temporary imprudence deranging the circulation; but he has told me that, on being careful for two or three days, he has been all right again. Since his return to England, General P. has suffered from so-called "incipient Bright's disease," and it was at first considered absolutely necessary that he should reside in a warm part of the Continent. This symptom too has passed away; and the General finds that, by following the instructions originally given, he can live as well in England, even in winter, as elsewhere.

(b) See "On Psoriasis and Lepra," page 4, and illustration forming frontispiece. Churchill, 1865.

The case is interesting as showing the importance of knowing a patient's constitution and antecedents. I have always asked him, when hearing of his having been treated for some temporary ailment, if he had informed the medical officer of the heart-history, and his answer has generally been in the negative. It had never occurred to him, he would tell me, to do so.

CEREBRAL CONGESTION RELIEVED BY POSITION.

General R., aged seventy-four, a hale old Indian officer, "retired," and living in the Himalayas, complained to me one day that his brain seemed to be "going." He would wake in the morning feeling confused. There was no pain. As the day advanced he felt somewhat better, and in the evening his head was comparatively clear. This state of things had continued for two days. On the third, suffering still in the same way, he sent for me. General R. was an early riser and a good walker; he would take his "constitutional" of two miles daily before breakfast, and his habits generally were remarkably regular.

In the course of conversation (when I went to see him) he mentioned that he occasionally had a sensation of "pins and needles" in his legs—not in both at the same time, but now in one, now in another. His pulse was firm and full, 68; and though rather bowed—more, perhaps, from a habit of stooping than from age,—there was every reason to believe that he would live to enjoy the usual term allotted as the "expectancy of life" at his age.

Treatment.—Notwithstanding his vigour, the bloodvessels had doubtless lost some of their strength and elasticity—the *vis a tergo*, moreover, being less forcible than it was formerly. For one advanced in years, the General had been in the habit of sleeping with his head too low. I therefore recommended a couple of extra pillows, arranged, not, as is usual, across, but "fore and aft" (to speak nautically), so that there should be no vacant space at the neck. The effect was very striking. The following morning the General rose with his brain as clear as usual; and thenceforth the remedy was in his own hands. The "pins and needles" evidently depended upon fæcal accumulation in the colon, for when this was removed by aloes the symptom disappeared altogether. It appeared again once or twice during the year afterwards, whilst I was at the station, but yielded to the same remedy. The mental confusion did not return, and years afterwards the General died of bronchitis.

The case illustrates in an interesting way the advantage of teaching physiology in our schools. Had this officer known anything of the circulation of the blood and the mechanism by which it is regulated, he could very easily have kept his brain clear without consulting a doctor.

ILL EFFECTS FROM HIGH ALTITUDES.

Colonel G., an Indian officer holding a high position in Calcutta, where he had resided several years, was sent on medical certificate, at the beginning of the hot weather, on account of his liver, to Nynee Tal, of which sanatorium I was then in medical charge. He, soon after arrival, began to feel very uncomfortable. Ten years previously he had been sent to another hill sanatorium, also on account of his liver. The same symptoms set in then as now; and, as he had undergone what he termed "very severe treatment" on that occasion, he was not disposed to again run the risk of a similar ordeal, and therefore allowed himself to remain unwell a long time without calling in medical aid. He was eventually induced to send for me.

Symptoms.—The symptoms were all caused by the rarefied atmosphere. The lake at Nynee Tal is 6609 feet above the level of the sea; and Colonel G.'s house was some 200 feet higher. The chief trouble was a sense of constriction across the liver, stomach, and spleen, extending over the chest and round, on both sides, to the back. Besides this tight feeling, there was a respiratory trouble: he was constantly taking a full breath to make sure that he could breathe. His appetite was good, the tongue clean, the pulse fair, and the several functions of the body were properly performed. Sleep was somewhat disturbed: he could not take the least exercise without feeling fatigue. A slight walk, even on level ground, was exhausting, and going up-hill was out o

the question. When, therefore, he came to the beginning of an ascent he would mount his pony.

Treatment.—I told the patient that I could do but little for him; that he had made a mistake in coming to a hill station at all; and that as soon as the cold weather set in he had better return to the plains and live under canvas for two or three months, marching about through the country. (I may here say that, speaking generally, I know of no better means of restoring health in India.) The climate of the Upper Provinces during the winter months is superb. The range of temperature is often great (about 40°), but the air is pure and dry, the sky cloudless, and the life generally (if the commissariat and other arrangements be satisfactory) simply Arcadian. In the course of the cold weather I again met Colonel G., carrying out my prescription. He told me that directly he left the Himalayas his symptoms all vanished, and that he was now in excellent health. When I first went to India, in 1844, it was customary to send nearly all cases of illness to the hills; but *this* case shows how unsuited they would be where there was a tendency to congestion of internal organs, and the practice has now, to a great extent, been abandoned; indeed, at the present time it is generally understood that the climate of the hills is chiefly adapted for cases of debility after fever, and the like, those of an organic nature being sent home, or for a sea-voyage, or being retained, like my patient, for treatment in the Upper Provinces. For simply bracing up the system an Himalayan climate in the cold season is admirably suited. It is infinitely preferable to the same season at home, where, instead of a clear, crisp atmosphere continuing for three or four consecutive months, we may have alternations of frost and snow, with warm suns and thaws occurring twice or thrice over the same period. Such changes are trying to all constitutions, but especially so to invalids from the tropics. An Himalayan climate is, however, variable, depending upon elevation, nearness to the sea, rainfall, and other causes. Whereas, formerly, all mountain sanatoria were supposed to answer every purpose in sickness, it is now realised that the differences in each are numerous and important, and constitute a subject for special study.

THE BACTERIA IN GONORRHŒA.—At the Berlin Charité Medical Society, Dr. Leistikow read a paper, which is reported in the *Berliner Wochenschrift*, No. 32, detailing the results of his researches on gonorrhœal bacteria, first discovered by Neisser. They are found in the pus-cells, this locality distinguishing them from other bacteria. They occur *only* in the gonorrhœal affections of the urethra and conjunctiva, and are never found in urethral or conjunctival secretions arising from other causes. In the early inflammatory stage they were found proportionately in smaller numbers than in the gleety stage, when they were always present. Inoculations of gonorrhœal pus from the urethra and conjunctiva have hitherto given only negative results. The various remedies used in gonorrhœa, such as zinc, lead, tannic or carbolic acids, after a few injections dispersed all the bacteria, as did the copaiba balsam when taken internally. Corrosive sublimate also prevented the development of bacteria, and Dr. Leistikow especially recommends it as the best means of treatment of gonorrhœa, employed in an exceedingly weak solution (10 to 20,000 or 30,000). With any of these injections we should persevere for some days after disappearance of bacteria, or they will return again.—*Petersb. Med. Woch.*, October 28.

USE OF THE FORCEPS.—In a paper in the *Brit. Med. Journal* (September 21), Dr. McCallom relates twenty-five cases, in thirteen of which the forceps were applied somewhat earlier than usual, and in twelve of which Nature was allowed to take her course. In the former set of cases he says that no material injury to mother or child occurred, and that the lacerations of the perineum were not so extensive, and the period of convalescence not so prolonged, as in the cases left to Nature. Rupture of the perineum, he observes, is of much more frequent occurrence, and more extensive in natural labour than when the forceps is used. "I think that by pressing the head well forwards under the pubic arch, and by not being in too great a hurry to extract the child, we are much less likely to have a laceration than when the head is projected by the violent *vis a tergo* of a contracting uterus."

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, NOVEMBER 25, 1882.

THE NORWICH VACCINATION INQUIRY.

IT will not have been forgotten that in June last, at Norwich, nine cases of erysipelas occurred in infants, very soon after, and apparently in consequence of, vaccination, and that of these infants nine died during the month of June and the first week of July. Very naturally the occurrence excited a great deal of attention, and representations were made upon the subject to the Local Government Board. Some preliminary investigations were made into the matter by Dr. Airy, one of the medical inspectors of the Board; and in August a public official inquiry was ordered by the Board to be made by that gentleman and Mr. Henley, one of their general inspectors. The inquiry was commenced, at Norwich, on August 23, and concluded on September 4. The inspectors examined all persons who appeared to them likely to be able to throw any light upon the matter under investigation, and presented to the President of the Local Government Board a report, which has been laid before the House of Commons, and, together with the depositions of the persons examined, and a memorandum by Dr. Buchanan, the Medical Officer of the Board, has been issued as a Parliamentary paper. It would take a considerable time to examine critically the evidence taken before the inspectors, but we may now state briefly the principal facts ascertained, some of the conclusions arrived at by the inspectors, and some of Dr. Buchanan's comments thereon. A child named Alice Lambert was vaccinated on June 6, among many others, by Dr. Guy, the public vaccinator for the borough of Norwich, and remained well till she was taken to the vaccinating station for inspection on June 13, when lymph was taken from her arm on ivory points. On June 15 she sickened, and on June 26 she died, of erysipelas. It is not certain how many children were vaccinated from the child Lambert; but one certainly was, and did not suffer from erysipelas afterwards. Three other children, Percy Threadkill, Emma Tyler, and Maudie Colison, were vaccinated on June 13, at the station; and the two former sickened very

shortly after vaccination, and died respectively on June 25 and June 26, of erysipelas. The third did not sicken till June 20, and she, like Alice Lambert, only sickened after she had been inspected and lymph had been taken from her arm. She died on July 4, and was certified as having died from "bronchitis," but death was afterwards admitted to have been caused by erysipelas. None of the three were vaccinated from Lambert. Threadkill and Tyler were vaccinated by means of ivory points from the arm of Percy Armes, along with two other children, neither of whom had erysipelas. Colison was one of three vaccinated from a child named Marriott, and was the only one that had erysipelas, and that not till after lymph had been taken from her arm on ivory points. Another child, Girling, was vaccinated on June 13, along with five other children who did not have erysipelas, and a sixth who did take erysipelas, but apparently at a later date. Some evidence was given to the effect that erysipelas was present in Norwich in somewhat greater amount than usual, but certainly not to the extent of an epidemic. The inspectors are not able to assign with certainty a specific source of infection in the cases of Threadkill and Tyler, but hold that the evidence raises "a strong case of suspicion against the freedom from contamination of the lymph with which they were vaccinated." With regard to the other cases, they consider that no evidence was adduced that served to indicate the probable source of infection, but that in some of the cases infection might possibly have been communicated by the public vaccinator, who, previously to vaccinating them, had attended others of the children suffering from erysipelas. This was, they consider, an error of judgment on his part. They object, in a very mild way, to Dr. Guy's "practice of using again and again the same ivory points in transferring lymph from arm to arm," for, though it was said that "the same points were not used twice on the same day, and that after every day's using they were carefully cleaned," they recognise that "some risk of septic contamination attaches to the practice." They do not, however, regard the ivory points as having been the cause of the mischief in any of the cases under consideration, but fall back on "some abnormal peculiarity or contamination of the lymph." Consequently they find that "no blame was proved to attach to the public vaccinator as regards the performance of his duties at the station, or to the appliances of the station itself," though that officer's practice of using the same ivory points over and over again had been formerly objected to by the Local Government Board's inspector, and Dr. Airy had had reason to believe that the practice had been abandoned. Altogether the conclusions of the reporters are unsatisfactory, and the report itself is of an unsatisfying character. The memorandum by Dr. Buchanan is clear, logical, and not sparing. He apprehends fully the risk of septic infection by imperfectly cleansed points, and the special significance that attaches to the custom of a repeated use of points in the set of cases under consideration; and he points out that in this instance there were some special reasons for suspecting that no particular care was likely to have been taken to cleanse the points as perfectly as possible. He objects most strongly to a repeated use of the same ivory points, and shows that perfect cleansing of them requires so much attention that even an habitually careful person must almost inevitably fail to always perform the process without fault. "The only safe rule in vaccination, therefore, is to consider an ivory point as a mere waste thing, only fit to be destroyed, after it has once been charged with vaccine lymph and put to its intended purpose. Unless this rule be observed, the destination of the dirty or imperfectly cleansed point is to be used again on some future occasion. It will have been a simple affair of accident whether the animal matter remaining by chance on its end has been kept dry and harmless, or whether it has undergone decay or obtained the qualities of a septic poison." He proposes in future to add to the present instructions to vaccinators the specific instruction, "Never use an ivory point a second time, either for the conveyance or for the storage of lymph." Dr. Buchanan points to the imperfections and shortcomings of the inquiry made at Norwich, and shows how it came about that "very imperfect investigation" has been made of the relation existing between Dr. Guy's practice of using the same points over and over again, and the recurrence of erysipelas at the Norwich vaccination station. Until the fact of such a use, or misuse, of the ivory points was elicited, "there was no act or thing having the same distribution as the cases of disease, that had been discovered." But that discovered, it was evident that septic matter might have been carried upon certain individual points, and inserted unawares into the arms of certain individual children, producing erysipelas in them and in no others. Then all that was required to account for the occurrence at the vaccination-sitting on June 13 was to believe that in the middle of the sitting a group of imperfectly cleansed ivory points came into use, to take lymph from some children, and to vaccinate others. In whichever way used, the infected points might produce injurious consequences. The memorandum is a very able one, and we shall probably publish it in full next week; when we shall also have something more to say upon the whole matter.

GASTRIC DIGESTION UNDER VARIOUS INFLUENCES.

Probably most, if not all, medical men are pretty strongly convinced of the injurious effects of a large draught of fluid taken along with meals, and act upon that conviction in laying down dietaries for their dyspeptic patients. At the same time we are not aware that any very accurate observations have been made on the point, and therefore a short account of the results obtained by Dr. Fleischer on this and kindred points (*Berl. Klin. Woch.*, 1882, No. 7) will not be void of interest. The first point in Dr. Fleischer's method was to ascertain for the healthy stomach the limits of the period of digestion for a given diet, that chosen being in almost all cases soup, bread, and beef-steak each day, alike in quantity and quality. At twelve o'clock this food was given, and six to seven hours later the stomach was washed out by means of a stomach-tube. The result showed that while for the same individual the digestion period was tolerably constant on successive days, for different individuals the period varied between five and a half and seven hours. The digestion period having been fixed, the same diet was given next day, but along with it half a litre to a litre and a half of water was drunk. At the same hour as on the previous day the stomach-tube was introduced. The result showed that there are healthy stomachs in which the drinking of cold water along with a meal even to the amount of a litre and a half produces no change whatever. In the great bulk of cases, however, it appeared that in a healthy stomach half a litre has no effect, a second half-litre causes a slight prolongation of the digestion period, while a third half-litre causes a distinct prolongation. A patient affected with moderate dilatation of the stomach and a slight catarrh completed the digestion of a given diet within seven hours when no water was taken. With half a litre of water the digestion was a long way from completion at the end of seven hours; while on the following day, when no water was taken, at the end of seven hours the washings of the stomach were almost quite clear. Having ascertained that digestion goes on equally rapidly whether the person lies quiet in bed or is up

Dr. Fleischer tried the effect of several hours' smart walking after meals. In some cases the digestion period was not prolonged by this, but in the great bulk of cases it was distinctly so—thus justifying the old rule, "After dinner sit awhile." In regard to the effect of heat on digestion, Dr. Fleischer made careful experiments, and in the great majority of sound stomachs he found that by the application of warm poultices over the stomach for five to six hours immediately after a meal, the digestion period could be shortened by about an hour. Cold seemed to have no effect whatever. As to the administration of pepsine and dilute hydrochloric acid to assist digestion, Dr. Fleischer finds that neither drug has any effect whatever in healthy stomachs, or in the case of patients with dilatation of the stomach and moderate catarrh, where free acids had been found previously in the washings of the stomach. This result, Dr. Fleischer points out, is not contradictory to those of Professor Leube, who found that in his patients with chronic gastric catarrh, digestion was distinctly improved by the use of these drugs. In Professor Leube's cases the gastric juice was deficient, while in Dr. Fleischer's it was secreted copiously. Dr. Fleischer confirms Kretschy's results as to the retardation of digestion by menstruation, and the return to the normal on the cessation of the menses. The preceding results give certain indications for treatment. They justify us in forbidding the consumption of a large amount of fluid, more especially cold water, at meals; and they also show that after dinner a period of rest is advisable. Dr. Fleischer had previously watched the good effect of poultices in cases of ulcer of the stomach, and he believes that this arises not only from their soothing influence, but also because the process of digestion is hastened, and so the stomach has a longer period of rest. If the stomach washings contain free hydrochloric acid, it is useless to give more; but in all dyspeptic cases it is well to give pepsine, as we can never be sure that that substance is not deficient.

THE ARMY MEDICAL REPORT FOR 1880.—No. III.

We proceed to notice some of the papers contained in the Appendix to the Medical Blue-book; for, although the subject-matter is by no means new to all, yet some of it will be fresh to many practitioners in England. Numbers of busy medical men have probably not studied the "relation of cholera to the parasitic theory," for epidemics of that disease are rare in Europe; but still they are always possible, and we may therefore profitably direct the attention of our readers to the first report in the Appendix—"On the Progress of Hygiene," by Professor F. de Chaumont. It reviews an elaborate paper by Professor Max v. Pettenkofer on the much-disputed question whether cholera originates from causes within or without the body, and whether it can be communicated directly by a cholera patient to a new victim. The answer is that cholera cannot be so imparted, and that an intermediate process must take place, external to the body, before the disease can be reproduced. Pettenkofer was chairman of the Cholera Commission in Germany in 1873, and in his present paper he discusses how far the investigations of the Commission find themselves in accordance with the fungus theory. Pettenkofer adheres firmly to the germ view, which, however, he holds as only determining one part of the question; since he considers the germ requires a proper nidus for development, and that this must be looked for in conditions of time and place altogether external to the body affected. Dr. Hirsch, of Berlin, agrees with Pettenkofer in the main, but there is this difference in their views: Hirsch considers that the cholera patient throws off the infectious germ, which, however, is only capable of reproducing the disease after it has undergone some change outside the patient, either upon or in the soil; whilst Pettenkofer holds that the reproduction of the cholera poison takes place quite independent of the patient, seeing that the infectious germ may attach itself to persons sick or well, or to other objects, through the instrumentality of which it may be carried from place to place, and wherever it finds appropriate conditions for its reproduction it may light up an epidemic. Both observers reject contagion and infection (in its usual sense) as causes of cholera, and reference is made to the review of the epidemic in Germany; and it is assumed "that anyone looking at the charts must come to the conclusion that mere intercourse with cholera cases or cholera-stricken localities has nothing to do with the spread of the disease, but that the most important part was played by the locality itself to which the disease germ was brought."

Cholera, it is held, may be carried by railway, steamboat, or other conveyance, by persons who are not suffering from the disease themselves; but these travellers carry the germ with them, which will develope into an epidemic when it finds a congenial locality. If Pettenkofer's view is correct, ordinary quarantine would appear to be useless as a preventive of the disease. We get no information as to the condition of the "nidus" which favours the development of the unknown germ. He cannot tell us whether it lies in the drinking-water (although he does not uphold the water theory), the sewers, the density of the population, its poverty, or its vice. Germ and nidus are alike mysteries, and afford a problem which medical science may yet solve. With regard to practical measures to prevent cholera, the Commission held, "All specific measures will prove unavailing unless we pay the strictest attention, in inhabited places, to the purifying of the soil from organic and easily putrefying refuse, to the drainage of the soil, to the constant flushing of the sewers, to the frequent emptying of cesspits, the careful inspection of dwellings, and closing those that are really hurtful, the provision of pure water both for drinking and other domestic purposes, and the like." The "Commission" expresses the united opinion of all, that these measures offer the best protection against all epidemic diseases, but warns us that "it is a fatal error to imagine that having recourse to them only at the *approach* of an epidemic will ward off the incursions of disease." With regard to Pettenkofer's views, Professor de Chaumont remarks that he does not entirely agree with him in his view of the causation of cholera, but admits that he has made out a strong case for local influence as a factor, although possibly not the main factor, and he continues that he is quite at one with him as to the necessity of *constant* and *unremitting* attention to every point of hygienic precautions as being our best chance of contending successfully with cholera and all other preventable diseases. There is this lesson, at least, to be learnt from the "Report," and it needs to be impressed by every medical man in England on all the local boards of health throughout the country. We turn to Appendix No. 9, on the Diagnosis and Treatment of Enteric Fever, by Brigade-Surgeon Marston, and we notice that he evidently leans to the germ theory as a probable cause of this disease also. He remarks that, "In April-May there is a very notable increase in the number of reports of enteric fever cases," and that "the disproportionate number of officers and men who have been but a short time in the country, as well as the single isolated nature of such attacks at a number of different stations, are very striking phenomena in these Reports, requiring explanation. On the assumption that every case of the disease depends upon the action of a specific germ or poison, such germ must be pretty generally distributed and ready to spring up in due season with the regularity of a vegetable; and if its presence fouls air, water

milk, or food, then a residence in the country seems to confer an immunity from its effects similar to that observed in the case of opium or arsenic eaters." In another paper, in Appendix No. 10, on the Cause of Enteric Fever at Lucknow, by Brigade-Surgeon Chapple, we find that this officer expresses himself still more strongly on the germ theory. He declines to accept climate as a probable cause of enteric fever, and asks—"Assuming the unity of enteric fever in England and in India, is it logical to assign totally opposite conditions for the production of the same disease? Even in India there are diversities of climate, and enteric fever is found in all; it is found in climates very hot, very dry, very moist, and very cold, in the hills and in the plains. In the heat of summer in England the disease almost totally disappears, whilst in India it is at its height in the hottest month." Malaria he considers equally unsatisfactory as a cause, and he dismisses the contamination of water as a highly improbable source of danger, while he holds that "of all views respecting the causation of enteric fever that of transmission through specific poison seems the most natural; *latent germs of the disease may, under certain favouring circumstances, suddenly spring into activity.*" The germ theory is evidently spreading among the members of the Army Medical Department serving in the East; and so much the better, as it is coupled with sanitary precautions—more necessary in India even than in England, for, in the East, "Filth abounds, though unseen; the natives, from caste reasons, cannot attend to their own conservancy, and when sweepers are maintained at public expense their sole object is to make places *look* clean. The stench in native cities and in the back streets of bazaars frequented by soldiers attests the prevalence of filth." The causation of Indian enteric fever by filth, Dr. Marston holds, is but a further proof of the identity of the disease with that prevalent in Europe, where its connexion, in some way, with faecal decomposition appears to be established. Dr. Marston, while noticing the complications which may arise from attacks of intermittent or malarious fever, says "there is no satisfactory evidence for including a typho-malarial fever as a distinct morbid entity in our nosological system." He denies that a true hybrid fever exists, although two forms of disease may run their course together, and he tells us that the disease which most closely mimics enteric fever is tubercular disease of the intestine, where the mimicry is so close as occasionally to defy the efforts at diagnosis.

We will now turn back and notice briefly Appendix No. 3, which contains a special report by the present Director-General on the Medical History of the Wars in Afghanistan, 1878-79-80. It is valuable as an exposition of his views regarding the superiority of the general over the regimental hospital system, and points out forcibly the dangers and delay that may arise from divided authority as it still exists in India.

We remark also his detailed observations on the rations issued during the campaigns, and his recommendations of the best forms of preserved and portable foods as suitable for Indian warfare; and he gives also the results of experimental trials of various forms of medical equipments and stores. The transport system is reviewed, and the advantages of short and long service contrasted, and Dr. Crawford winds up with a series of practical conclusions of great value, which he has derived from his experience of the Afghan campaigns.

THE WEEK.

TOPICS OF THE DAY.

With unwonted but right praiseworthy promptitude—for which, no doubt, Her Majesty the Queen has to be thanked—the Honours *Gazette* for the recent Egyptian campaign has been made public, and the distribution of decorations is fuller and larger than usual, as well as more prompt. The Commander-in-Chief of the expedition, Lord Wolseley, has felt compelled to issue a supplemental dispatch, in consequence of his having, in the hurry of framing the first, omitted to bring to notice several officers accounted worthy of special commendation; and amongst these will be found the names of Deputy Surgeon-General Colvin Smith, the Principal Medical Officer of the Indian Contingent, and Surgeon-Major J. H. Beath, M.D., of the Army Medical Department. The former is noticed for the excellence of the arrangements perfected by him for the care of the sick and wounded; and the latter for being a zealous and hard-working officer. The names of the medical officers who have been decorated, and of those who have received promotion, appear elsewhere in our columns.

A somewhat singular difficulty has arisen between the Henley-on-Thames Local Board of Health and the Henley-on-Thames local landowners. It appears that the Local Government Board have instructed the former body to get rid of the sewage of the town by acquiring land for the purpose in the immediate neighbourhood; but the latter body, who own all the surrounding property, distinctly decline to part with any portion of it for such a purpose. Under these circumstances, the only course left open to the Local Board of Health is to apply for a provisional order, and this the landowners have made up their mind to oppose by every means in their power. The difficulties experienced in the disposal of sewage are already sufficiently numerous, but the present one appears to be altogether unprecedented.

Recently, at the opening meeting of the Society of Arts, Dr. C. W. Siemens, F.R.S., chairman for the ensuing year, delivered his inaugural address, on "The Prospects of the Electric Light." The existing law on the subject, he believed, if properly interpreted, would protect all legitimate interests. Taking the parish of St. James's as an illustration, Dr. Siemens described a possible system of electric lighting, the source of power being placed in Golden-square, a central position. Excavation to the depth of twenty-five feet would, it was suggested, provide a suitable space for the boilers, engines, and dynamo machines, the only erection above the surface required being the chimney, and the works being arched over. London, in the same way, could be divided into 144 districts, requiring an average capital expenditure of £100,000 per district. To extend the same system over the towns of Great Britain and Ireland would absorb certainly eighty millions of capital (to include sixteen millions for lamps and internal fittings). Assuming that the bulk of domestic lighting remained with the gas companies, in St. James's Parish, with an area of rather more than a quarter of a square mile, 64,000 incandescent lights would be required; and the working charges per lamp he estimated at 12s. 9½d. per annum, or, with the cost of the renewal of lamps, 21s. 9½d. Gas would represent an annual charge of 29s. for the same amount of illumination: showing that electric lighting by incandescence, when carried out on a large scale, is decidedly cheaper. On the other hand, the cost of establishing gasworks and mains of a capacity equal to 64,000 argand burners would involve an expenditure of £80,000, as compared with £177,000 in the case of electricity. Electricity must win the day, he said, as the light of luxury; but gas would, at the same time, find an ever-increasing application for the more humble purpose of diffusing light.

With reference to the foregoing subject, it may not be out of place to notice that at a recent special meeting of the Birmingham Town Council, held to consider the report of the

Gas Committee on the Electric Light Act, Alderman Kenrick presented the report, and moved that no application be made by the Council for authority to supply electricity in the borough, or in any part of the district of their gas-supply; and that, with respect to the application for licences, the Council decline to consent to the same; and that, with respect to the application for provisional orders, the Gas Committee be authorised to make such conditions with the applicants as they deemed necessary. Mr. J. B. Baker seconded the resolution, which was unanimously carried, and the report was approved.

The opening meeting of the present session of the Meteorological Society was held last week at the Institution of Civil Engineers; Mr. J. Laughton, F.R.A.S., President, in the chair. The Hon. Ralph Abercromby, F.M.S., read a paper "On Certain Types of British Weather." In the course of this he showed that there is a tendency of the weather all over the temperate zone to occur in spells, associated with certain types of pressure-distribution. In Great Britain there are at least four persistent types—the southerly, the westerly, the northerly, and the easterly. In spite of much fluctuation, one or other of these types will often continue for weeks together, and tend to recur at the same date every year. The value of the recognition of type-groups is shown in the following ways:—(1) They explain many phenomena of weather and many popular prognostics; (2) in some cases they enable forecasts to be issued with greater certainty and for a longer time ahead; (3) they serve to correct statistical results by giving the real test of identity of recurrent weather, which no single item, such as heat, cold, rain, etc., can do; (4) they enable the observer to treat such geological questions as the influence of changing distribution of land and sea on climate in a more satisfactory manner than any other method.

The return of the Registrar-General for Scotland for the month of October last shows that during that period there were registered in the eight principal towns of North Britain the births of 3712 children, and the deaths of 2197 persons. The latter number was 123 under the average for the month of October during the last ten years, allowance being made for increase of population. A comparison of the deaths registered in the eight towns shows that during October the mortality was at the annual rate of 18 deaths per 1000 persons in Aberdeen, 19 in Edinburgh, Dundee, and Leith, 23 in Greenock, Paisley, and Perth, and 24 in Glasgow. The miasmatic order of the zymotic class of diseases proved fatal to 419 persons, and constituted 19·1 per cent. of the mortality. This rate was, however, exceeded in Glasgow Greenock, and in Paisley. The most fatal epidemic was whooping-cough, which caused 83 deaths, or 3·7 per cent. of the whole mortality; of these no less than 60 were registered in the town of Glasgow. Fever caused 39 deaths; of which 3 were tabulated as typhus, 35 as enteric, and 1 as simple continued fever. In Perth 10·5 per cent. of the deaths resulted from fever. The deaths from inflammatory affections of the respiratory organs (not including consumption, whooping-cough, or croup) amounted to 455, or 20·7 per cent. Those from consumption alone numbered 243, or 11·1 per cent. Three females were aged ninety years and upwards, the eldest of whom was a widow, ninety-three years of age.

A decision of considerable importance was given in the Queen's Bench Division of the High Court of Justice, on November 20, in the case of Brooker *v.* Taylor. This was a case under the Public Health Act, section 124, with reference to the removal of a child, having an infectious disorder, to a hospital. The Act provides that if it shall appear in the certificate of a medical man that a child is labouring under such a disorder, and that the parents are in want of proper accommodation, a magistrate may make an order for the removal of the child to a hospital. In the present case, which arose at Coventry, there was such a certificate, and such an order; but the mother of the child obstructed the removal, and was summoned for the offence. At the hearing the magistrates entered into the validity of the order, and declined to convict; and the question now arose, whether they were justified in taking that course, or ought to have convicted. The Court were clearly of opinion that the magistrates had no right to go behind the order and enter into its validity; and were bound, upon the evidence, to convict if there had been an obstruction; and they sent the case back to the magistrates with that direction.

The Royal Commission on Metropolitan Sewage Discharge have held further meetings since we last reported, at which nearly the whole of the members were present. On each occasion further evidence was given on the part of the complainants.

THE BANQUET TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

ELSEWHERE in our pages we give a full and detailed report of this banquet, held on Tuesday evening last at Willis's Rooms. Although His Royal Highness the Duke of Cambridge, Sir Garnet Wolseley, Sir John Adye, and some other distinguished guests, who were to have graced the occasion, were prevented from being present by a Royal command to Windsor, it will be seen that the meeting was a very successful one. Of the eighty-two medical officers of the forces just returned from Egypt, and all of whom received invitations, forty-nine were able to be present; and of thirty-three naval medical officers invited, twelve attended. All things went excellently well: many very good speeches were made; and the Banquet of Welcome will, we doubt not, long remain a very pleasant memory in the minds of the officers of the Naval and Military Medical Services, as well as with their civil brethren.

SIR THOMAS WATSON, BART.

WE learn that there has been no marked change in Sir Thomas Watson's condition since Thursday last week. He remains in the same helpless state; but he is still conscious, and is able to take sufficient nourishment to maintain vitality, and, as a rule, the bodily temperature is well maintained and the pulse is fairly full. The prolongation of life, looking at the age of our Nestor, is remarkable; and all will feel thankful that it is unattended with suffering.

DIETARY OF THE EMPLOYÉS IN THE PARIS HOSPITALS.

WE learn from *Le Progrès Médical*, No. 45, that the hospital authorities are alive to some of the dangers that may attend an epidemic of typhoid fever, and are taking active and sensible measures to prevent those dangers before they actually arise. The directors of the various hospitals in Paris have quite recently received a circular from M. Ch. Quentin, the Director-in-Chief of the Department, in reference to an increased dietary for all who are in any way brought into contact with the typhoid patients, giving the most minute details as to the mode and time of distribution of these extra allowances. The articles of food, etc., specifically mentioned are quinine wine, coffee, tonics, extra rations of meat and wine, soup, milk, tea, and rum. The persons to be benefited by these orders are the nursing-staff, the *internes* and *externes* on duty, the porters and those employed in admitting the patients, and the persons employed in the laundry. In all cases they are to take something (either quinine or soup or milk) before commencing the day's work; the diet for the other meals in the day is also carefully

prescribed. This is a step in the right direction; and the perusal of the Director's document has given us much satisfaction, but we trust that out of the temporary measure will spring a general and continued improvement in the dietary. Those who read the French medical papers regularly cannot fail to have noticed the number of deaths recorded in their pages of young men at the very outset of their career—men often of most brilliant promise—from some infectious disorder (mostly diphtheria) contracted at the bedside. We trust that, now that the authorities have recognised that it is their duty to endeavour to protect those who are engaged in these specially dangerous duties, the number of such painful occurrences will speedily diminish. The administration of our London hospitals rests upon such a totally different system, that the introduction of such a measure as that we have alluded to above would be quite an impossibility; but it is well known to many that the dietary of the nurses in some, at least, of our hospitals is so insufficient, that, were we to offer the same allowance to our domestic servants, they would not stay with us a week.

THE HEALTH OF THE ARMY OF OCCUPATION IN EGYPT.

The following statistics refer to the whole of the troops now in Cairo, consisting of 8725 officers and men. Returns for the first five days of November: New admissions to the hospitals, 505; deaths, 15, of which number 11 were caused by enteric fever. Second five days in the same month: Admissions, 258; deaths, 7, of which 5 were from enteric fever. Returns for one day (November 15): Number of patients from previous day, 776; new admissions, 38; discharged as convalescent or sent home, 144; deaths, 4; total remaining, 666. The sick-list shows that 7 per cent. of the infantry, 11 per cent. of the artillery, and 15 per cent. of the cavalry, are in hospital. The returns for the third period of five days in the present month show 242 admissions and 6 deaths, of which number 4 were caused by enteric fever. The returns for the 16th inst. are 90 fresh cases, 24 discharges, and 8 deaths, of which 6 were from enteric fever and 2 from dysentery. The average age of the 40 men whose deaths are last recorded is 25¼ years—15 being above the average, and 25 below it. From Alexandria it is reported that the latest returns from the hospital at Gabari and the hospital-ship *Carthage* show a diminution in the number of deaths amongst the troops. Out of 600 sick, the average rate of mortality is now only 1 per diem, while the previous week it was about 6. The hospital returns from Cairo for the 19th inst. are 69 fresh cases, 24 discharges, 1 death, and 796 patients remaining in the wards.

THE BELFAST ROYAL HOSPITAL.

At the annual meeting of the Belfast Royal Hospital, recently held, the report presented for adoption contained the following recommendation:—"The Board of Management beg to report to the Corporation that, on the recommendation of the medical and surgical staff, and a special committee appointed by the Board, it has been decided to establish two new departments in the Hospital—one for the treatment of the diseases of women, and the other for the treatment of diseases of the eye and the ear,—subject to the confirmation of this meeting." On this portion of the report a long and lively discussion ensued, the opponents of the proposed arrangement arguing that the space which could be given to the two new departments was too small to render them of much use either to patients or to students attached to the Hospital, while the innovation would tend to injure the special hospitals already existing in Belfast for the treatment of the diseases mentioned. The Lord Bishop of Down moved, as an amendment—"That the paragraph in the report headed 'Special Departments' be omitted." This was eventually put to the meeting and lost, twenty-one voting for it, and twenty-six against. Finally the report was carried in its entirety, one of the results of which will be that the staff of the Hospital will be increased by the addition of a resident house-physician. The Board of Management had expressed the opinion that it was necessary that at all times there should be a properly qualified medical officer in the house, and that there should be a full record kept of all patients treated in the Hospital; and they had recommended, therefore, the appointment of a resident house-physician.

THE PARIS WEEKLY RETURN.

The number of deaths for the forty-fifth week of 1882, terminating November 9, was 1119 (614 males and 505 females), and among these there were from typhoid fever 112, small-pox 9, measles 14, scarlatina none, pertussis 4, diphtheria and croup 45, erysipelas 5, and puerperal infections 4. There were also 41 from acute and tubercular meningitis, 207 from phthisis, 21 from acute bronchitis, 55 from pneumonia, 88 from infantile athrepsia (41 of the infants having been wholly or partially suckled), and 34 violent deaths (27 males and 7 females). The number of deaths registered during this week is larger than that of the mean of the four preceding weeks. The deaths from typhoid have decreased from 125 to 112, while diphtheria, small-pox, measles, and erysipelas have somewhat increased. The admissions for typhoid have diminished from 428 to 341; and while typhoid fever seems to be on the decline, the other epidemic diseases, especially those affecting children, tend, as was to be expected, to resume their ordinary figures. It is interesting to compare the deaths from epidemic diseases occurring in London and Paris from October 1 to October 28, always bearing in mind the great difference in the amount of population in the two capitals:—

	London. (Pop. 3,893,272.)	Paris. (Pop. 2,239,928.)
Small-pox	13	25
Typhoid fever	130	801
Scarlatina	304	3
Measles	139	22
Diphtheria	164	103
Pertussis	95	22
Puerperal infections	21	15

The births for the week amounted to 1211, viz., 602 males (433 legitimate and 169 illegitimate) and 609 females (454 legitimate and 155 illegitimate): 129 infants were either born dead or died within twenty-four hours, viz., 64 males (46 legitimate and 18 illegitimate) and 65 females (45 legitimate and 20 illegitimate).

THE PATHOLOGICAL SOCIETY OF LONDON.

The announcement was made at the last meeting of the Pathological Society that the Council have selected Diabetes as the special subject to which an evening in the course of the present session is to be devoted; but they are apparently going to strike out a new line, and, instead of a regular formal debate, we are to have specimens illustrative of the various pathological conditions associated with diabetes brought before us. We cannot help fearing that there is some danger of the evening being rather a dull one if this programme is strictly adhered to. For one speaker to get up and describe a lesion in the liver, while the next points out a diseased condition of kidneys, and a third talks about nothing but nerve-centres, will probably result in that desultory kind of work from which it is difficult to glean and retain much that is of value. But if the whole subject is opened by some one who is known

to have given much time and thought to the disorder, in a good address, pointing out what we really do know up to the present time, then the way will be cleared for subsequent speakers to add their new facts, and point out how they agree with, or controvert, the general principles that have been laid down by the opener; and thus at the end of the evening there will be no difficulty in discriminating between the various points brought forward—those which are distinct additions to our present knowledge, and those which are not.

HONOURS TO MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

THE *London Gazette* of November 17 announced that the Queen has been graciously pleased to give orders for the following promotions in, and appointments to, the Most Honourable Order of the Bath, viz.:—Deputy Surgeon-General James Arthur Hanbury, M.B., C.B., Army Medical Department, Principal Medical Officer of the Expeditionary Force, to be an Extra Member of the Military Division of the Second Class, or Knights Commanders of the said Most Honourable Order: Deputy Surgeon-General Colvin Smith, M.D., Madras Medical Service; Deputy Surgeon-General James Ekin, M.B.; and Surgeon-Major John Henry Beath, M.D., Army Medical Department, to be Ordinary Members: and Fleet-Surgeon Ingham Hanbury, Royal Navy, to be an Extra Member of the Military Division of the Third Class, or Companions of the said Order.

The Queen has also been pleased to grant to the following officers of the Army Medical Department her Royal licence to accept and wear the insignia of the several classes of the Orders of Osmanieh and the Medjidie which His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan, has been pleased to confer upon them, in recognition of their distinguished services before the enemy during the late campaign in Egypt:—*Second Class Medjidie:* Deputy Surgeon-General and Local Surgeon-General J. A. Hanbury, C.B. *Third Class Osmanieh:* Deputy Surgeons-General J. Ekin and Colvin Smith (Madras): Brigade-Surgeons W. G. N. Manley, V.C., and J. A. Marston, M.D. *Third Class Medjidie:* Brigade-Surgeons O. Barnett, C.I.E., E. G. McDowell, E. McGrath, and R. W. Jackson, C.B., with Surgeons-Major J. H. Beath and G. S. Davie. *Fourth Class Osmanieh:* Surgeons-Major J. Dallas Edge, M.D., G. W. McNalty, M.D., and W. N. Keeper (Bengal).

GEORGE GULLIVER, F.R.C.S., F.R.S.

WE regret to announce the death of George Gulliver, the distinguished anatomist and physiologist, which took place at Canterbury, on the 17th inst., at the age of seventy-eight. He was in the Army Medical Service for very many years; was for some years on the Council of the Royal College of Surgeons; delivered the Hunterian Oration in 1863; and was Hunterian Professor of Comparative Anatomy and Physiology in the College. He made his mark on the advancement of the science and art of medicine; but that was several years ago, and events move so fast and science enlarges so rapidly in these days, that to not a few of the busy practitioners and workers in the profession now, George Gulliver, the eminent and popular surgeon of the Royal Horse Guards Blue, will have been unknown. We shall give a full notice of his career.

DUBLIN HOSPITAL SUNDAY.

UP to Saturday last, the returns from 164 churches and places of worship had come in, the total amount collected being so far £3001, or £222 more than in 1881. The returns from some ninety churches had not yet come to hand on the day named, so that the total collection promises to be even larger than that of last year. St. Matthias's Church heads the list with a collection of £270. The present is the ninth annual collection.

THE NEW YORK MEDICAL SCHOOLS.

"HARPER'S MAGAZINE" for October contains an article on "Medical Education in New York," which may perhaps interest some of our readers; albeit, the subject is regarded entirely from the point of view of the non-professional observer. The personal appearance, dress, behaviour, and method of lecturing of several of the best known professors is described in a manner which, if applied to the teachers in our English medical schools, would be thought by the profession to have a savour of advertisement. In the same magazine is an article on "Certain New York Houses," one of those described being that of Dr. W. A. Hammond (the author of some works on diseases of the nervous system), to which the same remark applies. Portraits of several New York physicians accompany the first-mentioned article. Turning from the personal element, we learn that there are seven medical colleges in New York—four "allopathic," one "homœopathic," one "eclectic," and one for women. America, as we all know, is the land of quackery. It is a country, in the words of one of the Professors of University College, New York, "overrun with charlatans, some holding diplomas, others ignoring them as worthless, but all legally qualified to exercise the divine art of healing." The minimum course of study before graduation in the New York schools is somewhat less than that required for a licence to practise in this country. Candidates must have attended two full courses of lectures in some medical college, and have studied medicine for three years under a recognised instructor. The subjects of study and examination are, of course, the same. The fees are less, the aggregate, both for instruction and examination, being $330, *i.e.*, about £70. The women's college contains fifty students, and has ten professors. The eclectic college has over two hundred students, and the homœopathic college about one hundred and sixty. The students in the American medical schools are, if our authority is correct, a more mixed set than their English analogues. Many of them are the sons of poor farmers and artisans, who sacrifice comfort to their ambition, and live upon rations at which a well-to-do labourer would complain. Others, again, are "young men of fashion and fortune." They are, moreover, said to be, like the supposed English student of the Pickwick period, "lawless, exuberant, and addicted to nocturnal disorders." We hope this allegation is a libel.

FRESH MEAT FROM NEW ZEALAND.

THE time seems now to be within a very measurable distance when our own food-supply will be largely supplemented by cargoes of fresh meat—at any rate of fresh mutton—from our Australian colonies. We lately received, through the courtesy of Mr. Herrmann Cohn, of London-wall, and Mr. Benjamin Hale, of Christchurch, New Zealand, some mutton sent over from that colony by the New Zealand Freezing Company. The sheep had been killed in Canterbury on and about May 30, and the carcases put on board ship on June 6. The ship—the *Matura*—sailed on June 11, and arrived at Liverpool on September 25. The meat sent to us was taken out of the vessel on October 11, and was not cooked till the 14th. It was in every point very good. In the raw state its colour, texture, etc., left nothing to be desired; and it was excellent when cooked. This meat was sold in the London markets at 6½d. per lb.—a price that, looking at the quality of it, ought to insure a rapid sale for any quantity of it that can be brought to England.

THE PARIS MEDICAL FACULTY.

THE following are the lectures to be delivered during the winter session of 1882-83:—1. Medical Physics, Prof. Gariel; 2. Medical Pathology, Prof. Jaccoud; 3. Anatomy, Prof. Sappey; 4. General Pathology and Therapeutics, Prof. Bouchard; 5. Medical Chemistry, Prof. Henninger (as substitute for Prof. Wurtz; 6. Surgical Pathology, Prof. Duplay; 7. Operations and Apparatus, Prof. Léon Le Fort; 8. Histology, Prof. Robin; 9. History of Medicine and Surgery, Prof. Labonlbène; 10. Pathological Anatomy, Prof. Cornil; 11. Clinical Medicine, Profs. Germain Sée, Lasègue, Potain, and Hardy; 12. Clinical Lectures on Mental Diseases, Prof. Ball; 13. Clinical Lectures on Diseases of the Nervous System, Prof. Charcot; 14. Clinical Surgery, Profs. Berger (as substitute for Prof. Gosselin), Trélat, Vernenil, and Richet; 15. Clinical Midwifery, Prof. Depaul; 16. Ophthalmological Clinical Lectures, Prof. Panas; 17. Clinical Lectures on Diseases of Children, Prof. Parrot. *Auxiliary Courses of Lectures*:—1. Biological Physics, Prof. Gavarret; 2. Biological Chemistry, Prof. Henriot; 3. Medical Natural History, Prof. Bocquillon; 4. Internal Pathology, Prof. Rendu; 5. External Pathology, Prof. Terrillon; 6. Midwifery, Prof. Charpentier; 7. Physiology, Prof. Cadiat; 8. Pathological Anatomy, Prof. Joffroy.

A NEW DRAINAGE APPARATUS.

DR. F. STRAUB, of Tubingen, recommends in the *Centralblatt für Klinische Medizin*, No. 25, a new method of draining dropsical parts. The apparatus consists of a small glass funnel (about two inches or rather less in diameter at widest part), on the narrow end of which some tubing of very small calibre is fitted. The skin is punctured, the wide end of the infundibulum put on the cutaneous surface around the incision, the narrow tube made to end in a basin below the level of the part to be drained. When the apparatus is full of fluid a suction effect on the dropsical region is produced. In some cases of cardiac dropsy and Bright's disease this method was used with good results; in one instance sixteen pints were obtained in twenty-four hours.

THE ACADEMY OF MEDICINE IN IRELAND.

A GENERAL meeting of the Fellows was held on Saturday, November 18, at the Royal College of Surgeons, Stephen's-green, Dublin, for the election of officers for the session 1882-83. The following was the result of the ballot:—*President*: John T. Banks. *General Secretary*: William Thomson. *General Treasurer*: Robert MacDonnell. Medical Section—*President*: William Moore, President of the King and Queen's College of Physicians. *Council*: J. Hawtrey Benson, Charles Cameron, John Magee Finny, Samuel Gordon, T. W. Grimshaw, Richard A. Hayes, Henry Kennedy, Alex. Nixon Montgomery, John William Moore, and Christopher Nixon. Obstetrical Section—*President*: John Denham. *Council*: Lombe Atthill, Fleetwood Churchill, George Johnston, H. MacNaughton Jones (Cork), John R. Kirkpatrick, Arthur V. Macan, Thomas More Madden, William Cox Neville, Richard Dancer Purefoy, and William Josiah Smyly. Surgical Section—*President*: John Kellock Barton, President of the Royal College of Surgeons. *Council*: William Colles, Henry Gray Croly, Edward Hamilton, Archibald H. Jacob, Edward D. Mapother, Edward Stamer O'Grady, George H. Porter, W. Thornley Stoker, William Stokes, and William Ireland Wheeler. Pathological Section—*President*: John M. Purser. *Council*: Phineas S. Abraham, Elward H. Bennett, Charles Coppinger, Anthony H. Corley, George F. Duffey, Arthur W. Foot, Thomas E. Little, Robert MacDonnell, Walter G. Smith, and John B. Story. Meeting of the sectional councils were held on Monday, the 20th inst, to elect secretaries of the Sections, and two members of each Council to serve on the General Council, and to arrange for the meetings of the sections.

THE LATE PROFESSOR PIRRIE.

WE regret to have to record the death of Dr. William Pirrie, for many years Professor of Surgery in the University of Aberdeen, a post which he resigned only a few months ago. We hope to be able to place before our readers at an early date a short biographical notice of him.

UNIVERSITY OF DUBLIN BIOLOGICAL ASSOCIATION.

THE opening meeting of the ninth session of this Society was held on Friday evening, November 17, in the Museum-buildings, Trinity College. The chair was taken in the first instance by the outgoing President, Dr. J. Mallet Purser, King's Professor of Institutes of Medicine. The incoming President, Dr. Edward H. Bennett, University Professor of Surgery, delivered an address on the "Physiology of Plastic Surgery." The particular operation which he chose in illustration of his remarks was that for the restoration of the nose when destroyed by disease, an operation first introduced into this country in 1816. Dr. Bennett gave an explanation of the most approved method of performing it, but the point on which he laid most stress was the peculiar way in which sensation was, after some days, restored in a modified degree to the flap, despite the fact that nearly all, if not all, the nerve filaments were cut across in dissecting it out. In this connexion Professor Bennett referred to the Wallerian theory of the regeneration of divided nerve-cylinders. Professor Macalister proposed a vote of thanks to Dr. Bennett for his address; and Professor Cunningham seconded the motion, which passed by acclamation.

TYPHOID FEVER IN PARIS.

THE *Gazette Médicale* reports for the week ending November 15, that on the morning of the 9th there were 1756 cases in the Paris hospitals. During the week there were admitted 251 new cases, 400 patients were discharged cured, and 49 died, leaving 1558 cases in the hospital on the morning of November 16—a diminution of 198. There was therefore a daily mean of 35·86 admissions and 7 deaths, being a difference of 14·44 less than the preceding week for the admissions, and of 2·43 for the deaths. The burials of patients dying in Paris from typhoid have not offered a proportionate diminution, having amounted for the week, November 9 to 15, to a total of 101, or 14·43 per diem; while during the preceding week there were 102 burials, or 14·57 per diem—the difference being, therefore, insignificant.

THE ETIOLOGY OF CROUPOUS PNEUMONIA.

GRIFFINI and Cambria have been working at the question of the etiology of croupous pneumonia, and an abstract of the results of their investigations is given in the *Centralblatt für Klinische Medizin*, No. 25. There is, they conclude, a bacillus in the blood and sputa of pneumonic patients, which is not the same as Klebs' *monadin*. When the pneumonic sputum, free from saliva, was subcutaneously injected, or placed in contact with the trachea of rabbits and dogs, a fatal form of septicæmia was induced, and the blood of these dead animals when inoculated into others led to a lethal result. The authors maintain that this is not a specific effect of pneumonic sputa, for some old experiments by Senator have shown that the inoculation of fresh bronchial mucus under the skin of a dog was followed by a deadly result. The

saliva of pneumonic patients kills rabbits rapidly, but only gives rise to an abscess at the site of injection in dogs. Defibrinated blood from cases of pneumonia, thrown into the cavity of the peritoneum or of the trachea of rabbits and dogs, resulted not in pneumonia, but in various degrees of fever. Inoculations of the bacilli in various stages of artificial cultivation never caused any changes in organs, but only alterations in temperature. The bacillus of the pneumonic blood and sputa was always afterwards found in the blood of the vaccinated animals, although it had excited no pneumonia; hence, the authors believe that the bacillus found in the patients suffering from pneumonia was an epiphenomenon, and not a necessary factor in the production of pneumonia. When small doses of ammonia were syringed into the trachea of animals, lobar pneumonia was invariably produced if the animals survived a few days. The authors come to the conclusion that pneumonia is not an infectious disease.

STATISTICS OF THE SMALL-POX OUTBREAK AT LINCOLN.

At a recent meeting of the Lincoln Board of Guardians, the Sanitary Committee presented the following report from Dr. Harrison, Medical Officer of Health, on the late outbreak of small-pox in that city. The first case occurred during the latter part of the month of April: a girl seventeen years of age, not vaccinated, was removed to the Workhouse Hospital, where she died. On May 6 the City Hospital, on the West Common, was opened, and as there was accommodation for only eight patients it was quickly filled. Immediate arrangements were made for enlarging this building, and in a few weeks it was finished so as to accommodate sixteen patients. Thirty-eight patients in all were treated in it, the last being admitted on August 30, and the Hospital was closed on October 12. Of the 38 patients admitted, 28 had been vaccinated, and 10 were unvaccinated; 16 of the cases were of the confluent type, and 22 were mild cases. Of the 28 vaccinated cases not one presented four marks of vaccination, 3 had three good marks, 2 had three indifferent marks, 9 had two good marks, 5 had two indifferent marks, 7 had one good mark, and 2 had one indifferent mark each. Five of the 10 unvaccinated cases died (50 per cent.), but all the vaccinated cases recovered. In the Workhouse Hospital 12 cases were treated; of these 6 had been vaccinated, 3 not vaccinated, and 3 were vaccinated after being exposed to the infection of small-pox. Of the 3 unvaccinated cases 2 died, and 1 was removed to the City Hospital, where she was under treatment for eighty-three days. The 3 children vaccinated after exposure to the infection had the disease in the confluent form, and recovered. The 6 vaccinated cases were in a very mild form, and were quickly convalescent. Out of hospital 21 cases were treated; of these 7 died and 14 recovered. Of the 7 deaths, 5 were not vaccinated and 2 were stated to have been vaccinated, but there was no satisfactory evidence of this. Altogether, 69 cases were under treatment, with 14 deaths.

Dr. Arthur V. Macan has been elected to the office of Master of the Rotunda Lying-in Hospital, Dublin, for the next seven years, in place of Dr. Lombe Atthill, whose term of office has expired. Though perhaps somewhat junior in professional standing for so distinguished a position, we are confident that all who know Dr. Macan, and who take any interest at all in the welfare of the Rotunda, will rejoice at his appointment.

Mr. Edward Nettleship, F.R.C.S. Eng., has been appointed Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields, in place of the late Dr. R. W. Lyell.

The Admiralty have specially promoted Surgeons Charles Cane Godding, Herbert Mackay Ellis, and Evelyn R. H. Pollard to be Staff-Surgeons for services rendered during the recent operations; and the Queen has been graciously pleased to approve of brevet rank being conferred on the following officers for similar reasons:—To be Deputy Surgeons-General: Brigade Surgeons Jeffrey Allen Marston, M.D., and William G. N. Manley, V.C. To be Brigade Surgeons: Surgeons-Major J. Sarsfield Comyn, M.B., and Byng Thomas Giraud, M.D. To be Surgeons-Major with the relative rank of Lieutenant-Colonel: Surgeons-Major (with the relative rank of Major) Thomas Francis O'Dwyer, M.D., and Laurence Corban, M.D. To be Surgeons-Majors: Surgeons John Godfrey Rogers, M.B., and B. Bloomfield Connolly.

PARLIAMENTARY MATTERS.

House of Commons—Thursday, November 16.

Army Medical Officers.—Sir Trevor Lawrence asked the Secretary of State for War why the name of Surgeon-General Hanbury, commanding the medical branch of the Egyptian expedition, had been omitted from the Parliamentary vote of thanks to the general officers and others; whether Surgeon-General Hanbury did not hold the relative rank of Major-General, and was of the same rank as the other Majors-General whose services were specially acknowledged in the dispatches of the General the Commander-in-Chief of the expedition; and why the names of Deputy-Surgeon General Colvin Smith and the medical officers of the Indian Contingent were omitted from the dispatches which recommended the promotion of medical officers.—In reply to the first question, all Mr. Childers had to say was: "Speaking for the First Lord of the Treasury and the First Lord of the Admiralty, who with myself were responsible for the language of the vote of thanks, we followed the precedents, according to which it is not usual to name departmental officers, and I see no reason for enlarging the already long lists of names embodied on these occasions." As to the second question, he admitted that Surgeon-General Hanbury does hold the relative rank of Major-General; as to the third, it was not for him to ask the Commander-in-Chief of an army why he either excludes or includes the names of particular officers in his dispatches, but Sir Garnet Wolseley had written a supplementary dispatch including the name of Deputy Surgeon-General Colvin Smith.

Workmen's Trains.—Mr. Firth put some questions to the President of the Board of Trade in regard to the service of workmen's trains on the metropolitan railways; and Mr. Chamberlain said that since a question on the subject had been asked a few days previously, he had received several letters complaining of the way in which the service was conducted, and as the matter seemed to him one of considerable importance, he had ordered an official investigation, the result of which he hoped to lay on the table.

Health of the Egyptian Army of Occupation.—In reply to a question put by Sir Henry Tyler, Mr. Childers stated that the present percentages of the sick were 7 per cent. for the infantry, 11 for the artillery, and 15 for the cavalry. The percentages were rapidly decreasing, as the sickly season had come to an end. General Sir Andrew Clarke, Director of Works, had been sent out to Egypt to inquire whether any improvements in the barrack and hospital arrangements were desirable.

Tuesday, 21st.

Sanitary Supervision of Temporary Abodes.—Mr. Burt inquired whether the Government intended taking any steps early next session for registering and bringing temporary abodes, such as shows, tents, vans, and places of that kind, under the influence of sanitary officers.—The President of the Local Government Board, in reply, promised to consider whether the law as it stands is in need of amendment in this respect; but he could not, on this any more than on any other subject, now give any undertaking as to the introduction of a Bill next session.

BANQUET OF WELCOME TO THE MEDICAL OFFICERS OF THE EGYPTIAN EXPEDITION.

On Tuesday evening last, at Willis's Rooms, a banquet of welcome was given to the Medical Officers of the Egyptian Expedition. About three hundred persons sat down to dinner. The chair was occupied by Sir William Jenner, Bart., K.C.B.

After dinner, before any toasts were proposed,

The Chairman said: Gentlemen, we had hoped to have this banquet graced by the presence of several persons who are absent. His Royal Highness the Duke of Cambridge would have been happy to attend, had he not been commanded to-day to attend at Windsor at a dinner given by Her Majesty. This, of course, renders his presence here impossible. His Royal Highness wrote me a letter, which I am anxious to read to you. It is marked "private," but I have asked permission to read a quotation from it. "I have received your letter of invitation to the public dinner to be given at Willis's Rooms on November 21, by the medical profession generally, to the medical officers of the army who have been serving in Egypt. I should gladly have availed myself of this opportunity of showing my interest in, and cordial support of, the Medical Department of the Army and the medical profession at large, for I am well aware how closely and intimately our mutual professions are connected, and how impossible it is for the Army to exist without the steadfast aid of our medical friends. I am unfortunately engaged on the day named, and so cannot avail myself of your kind proposal. Had I been present I should certainly have assured the medical officers of the army that I highly appreciate their valuable aid and the good work done by them during the recent short but trying campaign." (Applause.) We were particularly anxious at the outset to secure the presence of Sir Garnet Wolseley at this table. I went to him directly the banquet was arranged, and asked him if he approved of the same, and if so, whether he would be present. He expressed his strongest approval and his earnest desire to be present, and in accordance with his wish this day was fixed for our meeting. However, Her Majesty's commands have taken him to dine at Windsor, and he has written me this letter:—"My dear Sir William,—I have just received Her Majesty's commands for us to dine at Windsor on Tuesday next, the day when you did me the honour to invite me to dine with the medical profession, to meet the army medical officers returning from Egypt. It is a sad disappointment that I am thus prevented from having the pleasure of taking part in an entertainment intended to do honour to those whose services and whose devotion to their military duties are so highly appreciated by the Army. There may be a diversity of opinion as to the value of our military medical systems of administration, but all who are acquainted with the work done by our surgeons in the field will, I think, freely admit that individually none are more devoted to their duty than those who are to be your guests next Tuesday." There was another gentleman whose presence we were anxious to secure this evening—not a military man, but the head of a department of the Army, I mean Mr. Childers. He says:—"Sir,—Your letter of the 10th only reached me to-day. It would have given me great pleasure to accept the invitation which is enclosed, but the state of my health is such that I am unable to take part in any entertainment of a public character, and I have already refused other invitations for the 21st. I certainly regret this, as I should have especially wished to do honour, so far as lay in me, to the medical officers who have served in Egypt with so much distinction and ability." We have letters also from Sir Evelyn Wood, Sir John Adye, and others who would have been here, but for the reasons which have compelled Sir Garnet Wolseley to be absent.

The Chairman: It is now my pleasing duty to propose a toast which I am sure you will receive with all possible honour, for what Englishman would not receive enthusiastically the toast I am about to propose? It might be sufficient for me merely to name the Queen to elicit from you the most rapturous applause, but it would hardly be right for me to do so in such an assembly as this. I think it is only fitting that I should give expression to the reason why we should receive such a toast with acclamation. Why is it that we are so devoted, as I hope we all are, to Her Majesty's welfare? Does a misfortune occur in the humblest house in the kingdom, which is brought to her knowledge, without some word of sympathy, some kindly expression, going to the place of suffering? If larger accidents or greater troubles occur, whose expressions are so warm, so earnest, so kind?—expressions of sentiments that would only come from the breast of a woman, and not only so, but they could only be expressed in the words they are by a woman. She sympathises, as you all know, with every accident by flood and by land. She follows with the intensest interest all her troops and sailors abroad and at home; and if any trouble comes to them, I am sure our military friends will tell us of the warm messages which are sent, and how kindly they are expressed. Some of us have watched her passing through the wards of our hospitals, and have heard the kindly word, and seen the gentle smile and the touch that give such encouragement to the poor sick. If she could only take a single pang from suffering, if she could only assuage in the least degree a dying man's distress, who does it so graciously, so kindly, as the noble lady of whom I am speaking? And when her troops return with victory, who goes so royally among them, who meets them with such a smile, who gives them so cheering a welcome, who gives them their decorations so graciously, adding a new honour to that already conferred, as our sovereign lady? Whether regard be had to her womanly worth, or to her charm of manner and grace, and all the highest qualities of womanhood, she is incomparable, and in regard to her high qualities as a constitutional sovereign she is unequalled in the world. We have as our sovereign one whom we love to serve, a woman incomparable, a sovereign unequalled. But Her Majesty has another claim to the goodwill of this assembly, for who has shown so much favour to our medical friends? Every medical man who has come in contact with her, I hesitate not to say, would speak of her as I speak, in terms of the highest praise. Her confidence is given without stint. There is no back-thought. Confidence is entirely given to those who merit it; but woe be to those who cease to merit it, for she will be as clear to see the want as she is to appreciate the merit. Therefore I am sure you will drink with all honour to the health of Her Majesty the Queen. May God save her! I know there are many here from our Eastern dominions, and therefore to drink to Her Majesty as the Queen alone would be unbecoming; I therefore ask you to drink to the Queen and to the Empress of India.

The toast having been duly honoured,

The Chairman said: Whenever a kindly act is to be done, or gracious word spoken, I am sure all here will admit that there is no one who does the kindly act or speaks the gracious word with better spirit than does the Prince of Wales. He is unceasing in good works, unceasing in his patronage of good things, not merely by sending money, which is a small thing, but in taking part himself in all the good deeds that he advocates. We, at any rate, in our profession can speak from personal experience of his good and kindly deeds. Who graced the Medical Congress with his presence? His Royal Highness the Prince of Wales. Who brought there his noble kinsman? The same excellent Prince. And so on every occasion, down to the time not long since when he honoured the *soirée* at the College of Physicians with his presence, we have always had reason to see in him a most gracious and kindly prince. As to the Princess of Wales, words would be lost if I were to attempt to speak of her kindliness, her grace, and all those qualities that have endeared her to the English people. I therefore propose to you "The Health of His Royal Highness the Prince of Wales, the Princess of Wales, and the rest of the Royal Family." When I mention the rest of the Royal family, I ought especially to allude to one, known to most of you, who has shared your dangers and cheered you, I am sure, by his presence—I mean the gallant Duke of Connaught.

Sir James Paget: Mr. Chairman, my lords and gentlemen,—I am privileged, as Chairman of the General Committee, to propose to you the next toast. I might use my privilege in complete silence, for the words of the toast are in themselves sufficient to commend it to your warmest

approval—namely, "The Navy and Army, and the Auxiliary Forces." The toast is always given, and given warmly, and yet, I think, we civilians may sometimes observe that in long intervals of peace the enthusiasm for it becomes more calm, and probably there are some men of peace who think that it might be well if this toast would give place to one that might express more plainly our admiration for peace rather than for war. But an expedition like this which has now been gloriously ended, may well tell how very short-sighted such a wish as that must be, for that, in truth, the best peace-makers—the best safeguards for the works of peace—are the British men and materials of war. In the present condition of the world it is only too evident that war will sometimes occur, unless it can be averted by such a threat of war as shall be certain of speedy peace and of imposing the conditions of that peace. When war is once begun, I suppose it is very plain that there is nothing better than that it should be speedily ended, even as the last has been, by forces commanding swift victory; this is what I think all peace-lovers will desire, and we all may be proud to boast that we have such strong, resolute, brave, and well-disciplined men and good commanders, who can bring with all swiftness to us the blessings of peace. Not men who love war, but men who will, when once engaged in it, resolve to carry it to victory in spite of all risk of life, of health, and of comfort—men whose admirable virtues the lovers of peace might well be proud to emulate. It would ill become me in my ignorance of the science of warfare to say anything of the late Egyptian expedition, unless it be based upon the speedy result which it has brought about. We can all of us remember, though we could not judge of, the sad forebodings about it; we can all remember that no one thought if ever the war did begin upon land that it would be soon ended. It appeared that there was one master-mind that did reckon how soon it should be ended—the great mind of the gallant, calm, and cool-headed Sir Garnet Wolseley. He did calculate the very end of it; he did reckon the difficulties to be overcome; he could absolutely count on the valour and skill of the forces at his disposal; and so he brought the war to an end to the very day. It was done with such precision as to time and method as reminds one only of the achievements of men of science who work with easily calculated brute forces; he had to calculate with a force not less sure, but less easily reckoned as to its speed—the force of earnest, intelligent, and brave men working under him. And, speaking of its likeness to science, one cannot but be reminded of the degree in which, of late years, science has interwoven itself with the whole matter of warfare. War is no longer the mere matter of fighting that it used to be. Chemical and scientific skill is now at once applied to the production of the materials of warfare, and victory seems now to depend not much more upon the bravery of the men than upon the scientific skill extended to the materials. And of this science, surely, we may now boast that the members of our profession bring to warfare their full and competent share. They are still called surgeons, and it is not likely that I should wish to change the title, for I am proud to boast, and almost to believe, that surgery does include the whole of the medical and many other sciences. The members of the Medical Department whom we now expressly honour do bring to their task an amount of scientific knowledge such as very few possess. They are not surgeons alone; they are now physicians; they are sanitarians; they are, in the broadest sense, men of science. The Departments have for a long time past been able to boast of their relations with men of science. Our friend Professor Huxley, who honours us with his presence to-night; another who is nearly his equal in another branch of science, Sir Joseph Hooker; another who is unmatched in his branch, Mr. Spencer Wells; another whose name will be remembered long with honour in the ranks of the most minute and exact scientific inquirers, George Gulliver,—all these show what men in the Medical Departments of the Services can do. Long before then they were indeed among the leading sanitarians of the time; but now all science is fairly combined in them, and I think we civilians are bound to admit that it would be very difficult to find anybody among ourselves who can with so much skill, and with such advantage to the country, show themselves masters of surgery, of medicine, and of sanitary science. They exemplify this in numberless instances. I will not anticipate the next toast by speaking of the grand works done by those who have served in this expedition; but at least I may refer to two—Directors-General Crawford and Reid—as brilliant examples. We civilians, as representing a large number of them, say how proud we are that men of our profession, and fully equal in scientific and professional knowledge, can bring us into relation with the bravery, the courage, the self-denial, the perfect and complete endurance for their country's need, which the members of the Medical Department have shown during the time of war. They number amongst them men who have won the Victoria Cross. They can tell tales of men who have been, in succession, brave soldiers, fighting as soldiers for their own lives and the lives of their comrades, and then men of science, men of perfect humanity, working for the relief of human suffering. We are glad, on an occasion of this kind, when those engaged in civil practice may show how heartily they hope to be always reckoned as of one body with the men belonging to Her Majesty's Services. I shall take leave to couple with this toast the names of Earl Morley and Mr. Campbell-Bannerman. No two names could be more appropriately connected with this toast, because of the offices which they hold, and which, by the consent of all, they admirably fulfil—standing in relation, on the one hand, with the Queen, with the peers, and with the people, as represented in Parliament; and on the other with those to whom we desire to do honour—the Navy, Army, and auxiliary forces.

The Earl of Morley: Sir Wm. Jenner and gentlemen,—I feel to-night that before such a distinguished assembly I am in a somewhat difficult position. In the first place because I have to follow so eloquent a member of your profession as Sir James Paget, and in the second place I wish that some more distinguished gentleman than myself could have responded for the Army. We all regret—I regret more than any of you—the absence of Sir Garnet Wolseley to-night, and I regret the absence of His Royal Highness the Duke of Cambridge, who I know was anxious to have attended on this occasion. I regret also the absence of my chief, the Secretary for War. But as Sir James Paget has done me the honour of coupling my name with the toast, I must do the best I can to respond to it. I feel that with regard to the Army generally my task is a light one, for after all I can add nothing to the sentiments that have been already expressed, not only in Parliament by the leaders of the two parties, but also by that enthusiastic and somewhat rapturous welcome given to the troops—not merely the combatant troops, but to all departments of the Army—in the march past through the streets on Saturday last. Sir James Paget, in his eloquent speech, has referred to the application of science to the art of war. He said, and he said justly, that year by year war was becoming more scientific; and I understand that it means that the science of war is becoming yearly more complicated, and that more sciences are applied to the destruction of the human race. But at the same time he referred touchingly to the fact that, concurrently with these increasing complications of science in the destruction of life, there is an increasing anxiety for the preservation of life and for the alleviation of the miseries of those who are wounded or sick—incident inevitably to any campaign, however brief. The late campaign has been marked by one peculiar characteristic more than any other, and that is its brevity; and we all know that the briefer a campaign is, taking all other circumstances into consideration, the less the loss of life. But to-night, perhaps in a double capacity, I ought to say something about the distinguished guests who have received the highest compliment that their profession could pay them. I say in a double capacity: not only as occupying the position in the War Office which I have the honour to occupy, but also as holding the no less responsible position of Chairman of the Committee—of which I am happy to see more than one of my distinguished colleagues present on this occasion—to inquire into the general arrangements of the Army Medical Department. I should like to say one word about that Committee, and I am glad of the opportunity of saying it. It is not a new Committee; it is one that was appointed more than nine months ago, and the object of it was principally directed to the improvement of the organisation of what we know as the Army Hospital Corps. The Secretary of State, after the conclusion of the present campaign, thought

it was a fit opportunity of utilising the experience that we had gained. In no sense whatever is the Committee, over which I have the honour to preside, conducting an inquiry into the conduct of individuals. The whole object of our inquiry—I am confident that I shall be borne out by the distinguished members of the Committee who are present, not connected with the War Office in any way, and who possess the confidence of the public and the profession: Sir William Mac Cormac, my friend the Director-General of the Medical Department, and Sir William Mends, who, situated as we are, as an insular power, has such immense importance as Director of Transports,—the object of our Committee is thoroughly to sift all the evidence that we can get as to the results of our present medical arrangements for war. I am sure we shall freely get evidence from all quarters, and we shall not refuse to take any evidence that will throw light upon the subject. I can assure you we are only anxious for the good of the Service, and our desire is to perfect the organisation of the Medical Department of the Army. That is a perfection that we all know is very difficult to attain. If you will consider what it is to transport a large expedition 3000 miles from our own shores, and then, for strategical and military reasons, to transport that expedition at once into a country absolutely incapable of providing supplies the moment they have landed, without having any opportunity for base organisation, I think you will all admit that the difficulties are so enormous that it is absolutely impossible but that at certain points and at certain early periods of such an expedition certain things may be missing. Before I sit down I should like to say that, coupled with the statement that has been read from Sir Garnet Wolseley to-night, I have heard many officers of the highest distinction speak of the zeal, of the untiring energy under the most trying circumstances, of the officers of the Medical Department during the campaign. I am sorry that the distinguished general officer whom I see within a few paces of me was not "told off," if I may use the expression, to answer to this toast. He would have told you more than I can how the officers of the Medical Department behaved in the campaign, but I am consoled by remembering that his turn is coming later on. From what I have heard myself, I can assert that the officers whom you have honoured to-night have, by their zeal and their energy, under the most trying circumstances, under an extraordinary pressure of work in an unhealthy climate, admirably performed the duties which have been allotted to them in the Army. I am not paying them a compliment which is not thoroughly deserved. We all know that there is no other profession in which so thoroughly calls out the qualities of self-sacrifice and self-denial, and I am sure the members of your profession who have been in Egypt with the forces have not fallen short of the high standard expected from the medical profession at large. I need say nothing more, except to assure you that it has been a great honour to me, and an unexpected one, to respond to this toast, and to express the sincere hope, which I am sure will be shared by all my colleagues, that the experience of the Egyptian campaign may throw great light upon our medical organisation in any future campaign. Without finding any fault, but simply desiring to improve the organisation of the system, I trust that we may be able to effect some real, genuine reforms that will be helpful in accomplishing that which is the noblest of all aims—the alleviation of the sufferings of our fellow-creatures.

Mr. Campbell-Bannerman, M.P.: Sir William Jenner, Sir James Paget, and gentlemen,—I owe the distinguished honour of being called upon to respond to this toast to the accidental circumstance of my being associated with the civil administration of the Navy. Although, of course, I accept the position assigned to me, I cannot but express, like my noble friend who has just sat down, my wish that the duty had been allotted to some one or other of the officers of the Navy who are present, and above all, if possible, to some one who had engaged in the expedition to Egypt. I entertain this wish because such an officer would have been a more worthy representative of the Navy than myself, but chiefly because he would naturally, as I believe, have attempted to disclaim some of the credit that has been attached to himself and his comrades, and some of the kind words that have been used by Sir J. Paget; whereas I must confess, for myself, that my personal admiration for all the men who compose that great service, of every rank, degree, and condition, is so great, and increases so that I with every day's experience of my daily duties, that I cannot in my conscience do otherwise than echo their praises. The recent war, singularly short as it was, afforded them an opportunity to display within a brief compass every quality which we ordinarily attribute to the Navy. The diplomatic tact, the sound judgment, the technical skill, the cool courage of the officers, were as completely tested as the bravery and the manifold aptitude of the blue-jacket, or the solid carriage of the marine. Sir James Paget and Lord Morley had said that one of the most remarkable features in the recent war was its speedy conclusion, and I venture to say that that speedy conclusion was in a large extent due to the admirable way in which the naval officers conducted their relations with what I may perhaps call the two great public services—on the one hand, the Army, so far as related to the actual duties of the campaign; and on the other hand, the great mercantile marine of this country, in carrying out the portentous enterprise of the transport of the expedition. Gentlemen, these events have shown that the Navy is worthy of its great traditions, and your response to the toast to-night is proof, if proof were needed, that it retains fully its old place in the affection, confidence, and pride of the country. It would ill become me to say anything more, but before I sit down I wish, in one sentence, to say, on my own part, and on that of my colleagues in the Admiralty, how highly we appreciate the services of the Medical Department, and how anxious we are by every means in our power to see its efficiency promoted, and how gratifying it is to us to find those services recompensed and acknowledged by a public demonstration of this sort on the part of the members of their profession.

The Chairman stated that the following telegram had just been received from Berlin:—"The members of the Berlin Army Medical Society, now sitting, send greeting to the medical officers of the British army returned from the war, and present at the banquet given at Willis's Rooms." (To the above message of greeting the following reply was at once sent from the room: "The medical officers of the Egyptian Expedition, now present at Willis's Rooms, London, return their hearty thanks for the good wishes just received from their brethren at Berlin.") The Chairman then said, in proposing the toast of the evening: Gentlemen, I owe some apology for occupying this chair. No, no.) When the subject of this banquet first came under my consideration, I was most anxious that a surgeon should occupy the chair. I felt that the Army and Navy Surgeons had in some measure a right to have a surgeon in the chair, and I spoke to him who may be styled the Chrysostom of medical orators, the man with the golden mouth—and he with his golden eloquence beguiled me, and told me that it was rather the duty of a physician, inasmuch as the duties of our medical officers were more medical than surgical. He told me, and it was quite true, that 7030 men had passed through the hospitals in Egypt up to the 8th of November, and that of that number only 403 were surgical cases. He also urged upon me—and this had weight with me—that as I was President of the first medical college or corporation in the kingdom, it was my duty to do what I could to do honour to the medical officers returning from this expedition. I therefore felt that although I could not lay claim to his eloquence, my halting words, from the position, I held would have some weight with you. Sir James Paget has told us that medical surgery involves everything. It may be so, but I should be very sorry to allow some of my medical friends in the College of Physicians to cut off my leg, and I think he would look twice at some of his surgical friends before he allowed them to treat him for a bad pneumonia. In England the two branches are to a great extent distinct, and Sir James Paget's argument, therefore, had weight with me. But there is another department of medicine which is hardly surgical—I mean preventive medicine, sanitary science—and I felt that this belonged especially to the physician. It is physicians who teach it, and not surgeons; it is physicians who founded it, and not surgeons. Now, preventive medicine, sanitary science, does seem to me, in regard to the Army, more even than medical skill or medical treatment. I remember stating, after the Crimean war, to some of my medical friends, that if, being ill with fever, I had my choice of being placed in a tent with a jug of water beside me, and a little food, such as I could take, I would rather be in the tent with the free air flowing around me—in the best sanitary condi-

tion—than in some of the hospitals I had read of, even though I had a whole college of physicians to treat me. Our Army is still decimated with disease—in Egypt, I mean,—and was so from the beginning; and this disease, if it is to be met at all, must be prevented by sanitary arrangements. The Army will be weakened in a short time if disease continues to make the progress that it has made there. You may ask me if I attribute to the medical officers any want of sanitary knowledge, or of zeal in putting sanitary law in force? Not at all. In this great metropolis, and in this country, where the powers of civil engineering are at our disposal, where sanitary arrangements can be conducted with precision, where the analyst tests the water and publishes his tests week after week, where the analyst tests the milk and inspects the dairies, we find, nevertheless, epidemics of typhoid, we find the subtle germs eluding the most carefully planned schemes for their obliteration. What, then, must it have been in the East, where dead bodies infected the water, where thirsty men were fain to drink although the drink was death? I say that no sanitary arrangements could have prevented these terrible disasters. Something has been said of the organisation of the hospitals. I am old enough to have witnessed an epidemic of cholera in this country in which patients were thrust into large hospitals supplied with nurses, with medical staffs, and medical students, and I witnessed (because it came suddenly upon them) the confusion and upset of all previous arrangements; and I can therefore fully understand that in the East, where they had comparatively few officers, where those officers had, I am sorry to say, other functions than their medical functions to perform, where they were under-manned, under-nursed, and badly nursed—I say I can understand (though I do not know that it was the case) that a certain amount of confusion might have entered into the arrangements of the hospital for a time. Then, again, I am old enough to remember that if the medical officers deviated one letter from the law—if they purchased this or that which they thought was for the good of the patients—it was disallowed unless it was properly ordered. It might be some trifling thing that would only cost 2½d., but then it was said that the 2½d. had to be multiplied perhaps by 150, and the medical officer's pay was not sufficient to enable him to order it, because it would come to a considerable amount. Then the surgeon was called upon to operate when shot and shell were dropping around him; and one distinguished officer, Surgeon-Major George Shaw, whose name should ever be mentioned with honour, fell dead at his post, pierced through the head with a bullet. Now, to preserve a cool head and steady hand under such circumstances indicated a very considerable devotion, and mental power, and training, and I say that all honour should be rended to those who conducted themselves as medical officers in that expedition under such trying circumstances. None but the medical profession can appreciate all the difficulties and trials that you had to undergo, and none but your profession can judge of the skill and judgment that you displayed. This is a representative assembly, for here we have Oxford sending us its Regius Professor of Medicine, Cambridge its most distinguished surgeon, and we have also amongst us the most distinguished graduates of the University of London. The President of the College of Surgeons and the ex-President of the College of Physicians are with us, with all the most celebrated Fellows of the two Colleges. The most renowned practitioners, in the large sense, of medicine, surgery, and midwifery, are here to-night. And why? To express their thorough conviction that you did your duty. It may seem faint praise to say that you did your duty; but remember what it is to do one's duty. It is to bring to bear on the work in hand the whole of your physical power, all your mental and all your moral power: and when the medical profession, in such a representative assembly as this, say that they believe you did your duty, that is a sufficient reason why you should receive a hearty welcome. We desire more—we desire to say that you exercised, under trying circumstances, skill and judgment; and we desire to draw closer the ties that unite us, your civil brethren, to you, the members of the same noble profession. I think myself that the medical officers of the army have no greater honour than to belong to our profession. Highly as I respect combatant officers, highly as I respect other professions, I will yield to none in claims for dignity as regards calling in life, and if we make everyone here feel the same zeal, and the same claim to honour in their profession, I am sure we shall reap the reward. We wish our brethren to feel that we, the civil members of the profession, thoroughly sympathise with them in all their trials and difficulties; that we are one with them—one in their hopes and in their aspirations. I trust, then, that you will drink, with all honour, the health of the Medical Officers of the Navy and the Army who have served in Egypt.

Staff-Surgeon Bell: Sir William Jenner, my lords, and gentlemen,—In responding on behalf of the Naval Medical Officers employed in the Egyptian expedition, to this toast that has been so cordially received, my only regret is that, owing to the illness of Staff-Surgeon Mahon, the task of replying has not fallen into abler hands. But I do not think I shall be wrong in bearing my testimony to the devotion and the self-denial of my brother medical officers of the Naval Service in the performance of their duties in Egypt. I am glad of this opportunity of being able publicly to thank the officers of the Army Medical Department for the hearty co-operation, sympathy, and assistance which they always gave us during the campaign in the field. I refer both to Egypt and to the Transvaal, where I had the good fortune to be associated with them. The same good fellowship always existed between the two Services. I beg to tender you our hearty thanks for the kind reception we have met with to-night.

Deputy Surgeon-General Ekin: Mr. Chairman, my lords, and gentlemen,—In rising to return thanks on behalf of the officers of the Army Medical Department serving in Egypt, I find myself at the greatest possible loss to return thanks in a suitable way before an assemblage of the most distinguished men of our profession to be found anywhere in the world—men who are accustomed, as you have heard to-night, to hear speeches made by orators. It is not so with the medical officers serving in Egypt, and I hope, therefore, that I shall have your indulgence while I attempt to say a few words. Sir William Jenner has spoken to you of the union which should exist between the medical officers of the army and our professional brethren in civil life. We have always known that we can at all times depend upon you for your sympathy, and your assistance if we require it; but, gentlemen, you have come forward on this occasion to give us a reception which deserves the heartfelt gratitude of every one of us, not only of those who have come here to-night to partake of your princely hospitality, but of those who are absent from sickness, or from some other cause, and those who are still serving in Egypt, to whom the events of this evening I hope will be the subject of many pleasant conversations in time to come. I will not detain you long with any remarks with reference to the medical transactions of the late campaign—that would be too long a subject to enter into—but some time ago one would have been led to suppose, by the remarks made in many newspapers, that the Medical Department had broken down. The Medical Department was never in anything like a condition of breaking down. There was no necessity for it; there was no great demand upon the Department at any time, and it is utterly wrong to suppose that there was anything approaching a breakdown. I trust that the Committee now sitting and investigating matters connected with the Department will find out any defects that exist, and I am sure that I and every officer in the Department who has its welfare at heart, wish that every existing defect may be found out and corrected. Let me say that on July 27 I saw the establishment of what I consider the very fine hospital at Alexandria, and I left it capable of accommodating 270 patients; everything was complete. I went on to Ismailia, and there, in consequence of the sudden advance of our troops, everything was not so complete as it was at Alexandria. For many of the sick there were stretchers, as comfortable as most beds; for others there were no beds, but there was a comfortable dry floor, with good ventilation, and that was better than sleeping in two or three inches of dust, under a tent. I never saw men better looked after, whether in the field or in the hospital. They received every care and attention from the medical officers, and I do not think there was a single real case of neglect brought under my notice. It is my bounden duty to tell you candidly what I think about these matters, considering the reception you have given us. You have spoken in the most candid way of my Department; you have spoken in

the most flattering way; but we take your good wishes, as we are sure you intend us to take them. My predecessor has spoken of the Army Medical Department with the naval medical officers. I must say there was no difficulty in working together; there is the greatest harmony between them, and every desire to assist one another to the utmost. We took any man in whom we could assist in any way, either for his wounds or for disease. I have again to thank you for the great honour you have shown us.

Deputy Surgeon-General MAESTON: Sir William Jenner, and gentlemen,—I am very glad that some one worthier and abler than I am has returned thanks already for the Army Medical Department; but it would be affectation in me not to say that I am proud of the position in which I stand. I feel thoroughly with Sir Wm. Jenner, that, proud as I am of being an army medical officer, I am prouder still of being a doctor. When once we lose touch of you, to use military language, when once we lose your sympathy, where are we? It is to you as a critical audience, as a special jury, that hereafter we shall have to appeal, in order that you may pronounce judgment upon us; because you, by your special technical knowledge, must know how we discharge our duties. Gentlemen, our arrangements will have to be tried on a very simple basis; the questions will narrow themselves down to this—what material had you? what steps did you take to make it accessible? and what use did you make of it when you got it? I do not wish to say anything that can in any way prejudge or prejudice the inquiry that is about to take place; we all desire to have the best obtainable, however it is brought about. But there are circumstances which cannot be lost sight of. You cannot, in vulgar language, have your cake and eat your cake. You cannot have great mobility in the field, and at the same time have heavy things to transport. You must remember that when we landed, the men were instantly moved up to fight, and that no sooner were other men landed, than they were moved up to the assistance of the first. Then we had a hospital which was called a "base hospital." That is generally understood to mean a general hospital; but such could not be the case, for we had no means of making contracts out there. We had to depend upon the supplies that were brought down; but with regard to medical comforts—such as beef-tea, milk, soda-water, ice, champagne, claret, and such things,—I believe there was an abundance of them. Then you will remember that there was a great strain upon the transport—cartage had not arrived. Had the transport been there, it would have interposed a break between the fighting army and the so-called base, which is a temporary succour for the wounded who were to go on board floating hospital-ships. Sir William Jenner has said a great deal about sanitation. It was my duty to look after the sanitary condition of the force. In the so-called base hospital the men were on stretchers, as a rule. I think it is quite possible that there were some cases of privation, many cases of inconvenience, some of discomfort, and even of apparent hardship; but that there were cases of real actual hardship I deny. Such hardship tells upon the health of the wounded and sick men. Now, from August 23 to September 29, 2800 men, wounded and sick, some of them very badly wounded, passed through the hospital, and the percentage of mortality was ·6 per month. In other words, one man in 200, or 6 per cent. per annum, died in the hospital. Early in the morning the Surgeon-General and I rode up to the field before the battle had taken place. A field hospital was transported by the canal, and the flag of the hospital was pitched in the earthworks that had been left by the enemy. The stores were disembarked from the floats or barges that were taken up, and twenty-five tents were pitched. The boats were littered with hay to a considerable depth, and planks were put out so as to form an easy access for the wounded. The wounded began to come in about seven or eight o'clock. They were all treated very much in the same way: they all received, according to the gravity of the wound, a small or a large dose of opium. Preparations for them were thoroughly made at the bottom of the tent, where they were nursed and dressed as well and as promptly as possible, and, as far as we could, antiseptically. The opium soon began to take effect, and many of these men, though badly wounded, in less than an hour were asleep. Two hundred Europeans, including seven officers, some of whom were dangerously wounded, were transported in two boats down the canal with an ease that has probably never before been known. There were about 200 wounded Egyptians who were sent by rail, so that altogether nearly 400 persons passed through the Dam Hospital at Kassassin. About 6 cwt. of ice had been brought up by train. Most of the men had lumps of ice, and many of them champagne. I think, therefore, that on the whole it was not a bad day's work. Let me only say, in conclusion, that if you put on one side of the picture all the defects and all the privations, and add them up and multiply them by ten; and then on the other side, going on the political principle of "the greatest good to the greatest number," if you take the amount of positive good that was done, such as that which I saw with my own eyes, I really think that, under all the circumstances in which we were placed, never was a more comprehensive, varied, responsible and successful medical service rendered in the field.

Deputy Surgeon-General COLVIN SMITH: After the eloquence of the previous speakers, I really think that there is no necessity for me to reply to the toast with which my name is coupled, on behalf of the Indian division of the Army in Egypt. As that army was composed both of the army medical men and Indian medical men, I can only declare that no men ever did their duty more nobly than they did. They carried out everything to my entire satisfaction for the benefit of the sick and the wounded. Happily, everything was prepared in India on a very magnificent scale before we left, and we had no shortcomings whatever. Our sick-rate was only 15 per cent. during the whole campaign. Our death-rate was *nil*. We lost one man from an injury received on board ship. We had a few sunstrokes after drinking, and things of that sort; but from August 21 to October 19, when we left, there was no death amongst our men. We had an admirable army ambulance corps, which I am glad to say we were able to lend to the Army Medical Department. We also lent 100 men to carry off the wounded at the battle of Tel-el-Kebir, and they did the work admirably. We gave them also an ambulance corps of ninety-six bearers, who, however, did not arrive in time owing to detention on the railway. At Cairo we were glad to give them 200 dhoolies to carry the sick. I was delighted with my department, composed of both army medical men and Indian medical men. They vied with each other to assist in every possible way for the benefit of all.

Mr. ERNEST HART: Sir Wm. Jenner and gentlemen,—It tells well for the wholesome condition of the Services that we have present to-night the Parliamentary Secretaries of the War Office and Admiralty, and that we are also favoured with the presence of many distinguished officers of the Army and Navy, whose names I have to mention to you. The medical officers who served their country in the Army and Navy have a profound respect and warm allegiance to the officers of State who administer the Services; and they are bound to their comrades in the field by intimate friendships, and by that inexpressibly close alliance and comradeship which men have who share the anxieties, the labours and hardships common in peace and in war. They have also the opportunity of being the daily witnesses of the courage, the discipline, the dash, the endurance, and the magnanimity in victory of their comrades in arms; and they honour as we honour those sterling qualities of British soldiers which have on so many fields achieved the high aims of British policy under circumstances of the greatest difficulty,—and never more gloriously than in that short and sharp campaign which began under the frowning forts of Alexandria, and ended so gloriously in the plains of Cairo. The progress of modern warfare leads the medical officer more and more to share the actual perils of war with his comrade in arms. The medical officer now advances in the first line of the army; he must be prepared to share the perils of the bullet and the sword; he must be ready to face the dangers which proved fatal in the early stages of the campaign to Surgeon Shaw, who fell mortally wounded while tending a sick man in the front line of fire. He must be willing, like Andie, to do his duty under the heaviest fire, and to be rewarded as he felt rewarded when dying he was able to say, "Tell my family that I have done my best for the wounded under my charge." If need be, he must be ready like Holme, like M. Kenny, like Reynolds of Rorke's Drift, like Reid, and many others whose breasts are decorated with the Victoria Cross, to draw his sword and to share the dangers of the soldier with the special duties of the

surgeon. From those duties and special perils the medical officers have not flinched, and we feel particular satisfaction whenever we read in the dispatches of commanders, and when we read in orders issued by the officers of State, of the commendations bestowed upon the medical officers of the army for their valour, for their cool courage and devotion, as well as for their skill. Happily, in an increasing measure those rewards and those commendations have been bestowed, and never more freely than by the gallant commanders of the Egyptian expedition, and by the Ministers who now control the various departments of State. It would have added much to our satisfaction had the illustrious chief who led the British Army to victory been present to-night. It was his intention, as we have heard, to do so; Royal commands, however, are higher, and have called him elsewhere; but nowhere could he have received a warmer welcome than we should have accorded to him to-night. Gentlemen, I could not mention to you a name more honoured in the Navy and more universally beloved than Admiral Mends. Admiral Mends won distinguished honours as captain of the *Arethusa*, early in life, as well by his gallant conduct, and by his dash, as by his seamanlike qualities. Later, as we all know, he organised the Transport Department in the Crimea, and since he has organised the Transport Department of every one of our great expeditions. He is also the creator of the great Indian system of transport. The name of General Sir Herbert Macpherson needed, I was sure, only to be mentioned to obtain that enthusiastic reception which you have at once accorded to it. General Macpherson won his earliest honours by distinguished valour, which gained for him the Victoria Cross at Lucknow. Since then, in every important Indian campaign—at Cabul, in the great march on Candahar—and lately, at the assault of Tel-el-Kebir, and in that march to Zagazig and Cairo, he has added to his early laurels. Sir William Owen Lanyon has been for many years conspicuous in the eyes of the country. He has won distinguished honour not only as a gallant soldier, but as a most accomplished administrator. This toast has, therefore, a general symbolic as well as a personal meaning. We desire to express our sense of the vast importance of the constant union and constant sympathy, and of the increasing mutual esteem between our medical and our non-medical guests. We desire to see that sentiment strengthened, for we believe that in the mutual sense of the vast, though diverse, importance of the professional proficiency of all branches of the Service lies the certainty which we all entertain that the efficiency of the British Army will not only be maintained, but increased: that with medical officers such as we are proud to see in this room, and the generals, and admirals, and combatant officers such as we are proud to welcome, we shall look forward, it need be, to further victories, and always hope to see the power and greatness of England maintained by officers such as those we welcome here to-night. I propose the toast of our non-medical guests, and with that couple the names of Admiral Sir William Mends, Major-General Sir Herbert Macpherson, and Colonel Sir William Owen Lanyon.

Sir H. T. Macpherson: My lords and gentlemen,—I beg to return you the most heartfelt thanks of the guests who have just been named by the last speaker, and in doing so I would ask your permission to name one of the guests who is sitting near me, and from whom the Indian Contingent, of which I had the honour to be in charge, received most valuable assistance—I refer to Colonel Sir W. O. Lanyon. He was commander at the port of Ismailia, and but for his assistance we never could have got on half so well as we did. No request that we ever made to him was delayed for an instant, and everything that we wanted from him was produced on the spot. I again beg to return you our best thanks.

Colonel Sir W. O. Lanyon: Sir William Jenner and gentlemen,—I can assure you that those whose health you have so kindly drunk, and of whom Mr. Hart has spoken so kindly, are very grateful for all that has been said, more especially as it comes from the *heart*. I feel, from the position that I held at Ismailia as Commandant of the base, I ought to say one or two words with regard to certain matters which have been referred to to-night. From the time that the Surgeon-General went to the front up to the time that I left Ismailia, I visited the hospital every day, and I went to the bedside of every patient and asked three questions: How are you getting on? Are you comfortable? Is there anything you want? In ten days no fewer than 1100 men passed through the hospital, and during all that time I only heard of two complaints. Those were from two men who were lying alongside each other, and who said that they had had nothing to eat for thirty-six hours. On inquiring into the matter I found that certainly they had not had anything to eat, but they had had as much beef-tea and milk as would have kept more than those two men going; and when I tell you that one of these men was badly wounded in the mouth, and the other through the shoulder close to the lungs, you can easily understand why they had had nothing to eat! I can only say that a more devoted and hard-working set of men than the medical officers who were down at the base with me I never wish to meet. They had enormous difficulties to contend with, but they contended against them well, and I can only hope that some of those difficulties which they had to meet will, by the experience thus gained, be obviated in the future. I thank you very much for your kindness in listening to what I have said, and for your kind response to the toast.

Dr. Crawford (Director-General): When I came to the dinner to-night I congratulated myself on not finding any reference to my name in this list of toasts. I cannot say, however, that I am greatly distressed by the duty which the Chairman has been good enough to impose upon me at very short notice, because I do feel that I should like to join with my professional brethren of the Army in thanking this august assembly for the honour they have done the medical officers who have served in Egypt. The toast which I have to propose to you to-night, however, is one of a different character. It is my privilege to propose for your acceptance the health of the Executive Committee who have organised and carried to a most successful issue this grand banquet. Having regard to the magnitude of the undertaking and the shortness of the time which has elapsed since it was put in motion, having regard to the many difficulties which must be made in private for such a large assemblage of guests, I think we are greatly indebted to the Executive Committee for the manner in which they have discharged their duty. As to the banquet itself, I am sure you will join with me when I say that we have most thoroughly enjoyed it. It is simply magnificent. For the object of it I think too much cannot be said. A passing allusion was made to-night to the army medical organisation by a very high military authority. Reference was made to what is called military administration. Possibly some people would call it military medical unification. I do not intend to address you on that subject, but there is another form of unification, sir, which is typified by this assembly to-night, and to which I wish to draw attention. It is no small gratification to the Army to know that the medical officers of the Army, Navy, and Indian Medical Services are taken into the ranks of this great medical profession, and received here into a brotherhood which is as honourable to the givers as to the receivers. It is a proud moment for us when we come here and find ourselves standing shoulder to shoulder in the ranks of our noble profession amongst the great chiefs in this great country and in this great city; and it is still more gratifying to us to know that, after the fatigues of war, after the many cares and anxieties through which our brethren must have passed in active service, we can come here and rest in the bosom of a profession which is prepared to do us justice. There is a unification of which we may all be proud. I have therefore special pleasure in proposing the health of the Executive Committee, which has brought to such a happy issue this attempt to unite in one undivided phalanx of professional union and loving brotherhood the medical practitioners in all branches of Her Majesty's Service. I beg to couple with the toast the names of Mr. Ernest Hart and Mr. Eastes.

Mr. Ernest Hart: The honour of this toast is more strictly due to Mr. Eastes. I will therefore simply heartily thank you for the compliment, and ask Mr. Eastes himself also to return thanks for it.

Mr. Eastes: Gentlemen, in the name of the Committee I thank you profoundly for the honour you have done us by drinking this toast. It would be vain to deny that there has been much mechanical and other work connected with the organisation of this banquet; but at this late hour I

will not dwell upon this or other topics, but simply say that I am amply repaid for the small trouble I have taken by the undeniable success of this banquet. We civil medical men have shown, at any rate, that the members of the Army and Navy Medical Services have at all times, whether in war or in the trying duties required of them in peace, in all parts of the world, received the utmost sympathy of their non-military brethren; and I think we may be sure, after this meeting, that they at least will be fully aware that in all their trials and duties at all times we are all members of the same great professional brotherhood, that their sorrows are ours, and that in their trials we deeply sympathise.

Mr. Spencer Wells: Sir William Jenner and gentlemen,—This is the last toast of the evening, and if it is not received with as much enthusiasm as some of those which have been so cordially acknowledged in the earlier part of the meeting, I am sure the fault will be mine only. The toast is, "The Health of the Chairman." That cheer assures me that I need not say a single word to commend it to your notice. I wish, however, to say a few words, not as President of the College of Surgeons formally proposing the health of the President of the College of Physicians—that would be a pleasant thing to do, but it is a much more pleasant one to ask you to set aside all questions of collegiate distinctions, and to join, every one of you, whether physicians or surgeons, or both—whether in England, Scotland, or Ireland—whether guests who have returned from Egypt, or guests from Lords or Commons, or elsewhere, in drinking health, prosperity, and long life to Sir William Jenner. May he long continue to enjoy what he has so long held—the affection and confidence of all classes of his countrymen, from the Queen at Windsor down to the very poorest patient in the hospital. Those of you who have not hitherto known Sir William Jenner, know by what you have seen to-night the manner in which he fulfils any duty that he undertakes, the thorough earnestness with which he enters into it, and his determination to carry it out. You see the thorough, straightforward honesty of the man, and you see that he is, in the truest sense of the word, a true man. It is this which has endeared him to all of us; it is this which those who have known him best and longest must fully appreciate. The name of Jenner is the name of a great benefactor to mankind. It may not be generally known, but it is quite true, and easily proved by statistics, that the first Jenner has saved, is now saving, and will in the coming ages save, more lives in one generation than were sacrificed by all the wars of Napoleon. You may not know this; but it is quite true. Now, I should like, after thirty years' friendship, to say that Jenner the second has merited to stand on the same pedestal. But, what will be better than that, let me read to you something which I copied out before dinner to-day—the words of one of the greatest and most beloved of our physicians, now passing away from us in the fulness of years—Sir Thomas Watson. After pointing out that fifty years ago there was no definite line of distinction drawn between the various forms of typhoid fever in this country, he goes on to say, "The Jenner of our time, with a patience and honesty worthy of the great name he bears, has traced out plain lines of division between two or three forms, which have been confounded together and which we now call typhus and typhoid." Gentlemen, I say that by this work alone, if by nothing else, Sir Wm. Jenner has well earned the distinction he holds; and it is no flattery to say that he worthily holds the great name he bears. I believe that by what he has taught us as to the origin, mode of propagation, and mode of prevention and cure of typhoid fever, coupled with the most recent researches of Pasteur, we shall do as much to check the progress and lessen the mortality of typhoid fever as vaccination has done in the case of small-pox. I need not say anything more, but I will take the words out of the toastmaster's mouth, and ask you to drink this toast upstanding—three times three!

The Chairman: Gentlemen, I regret that a long friendship has made my distinguished friend, Mr. Spencer Wells, blind to my faults, and has enabled him to magnify enormously any virtues that I may possess. I thank you very heartily for the way in which you have received my name. I feel very proud of the position I have occupied to-night, though I still feel inclined to blame my friend, who has two or three times seduced me as with a golden tongue into many of the positions I have occupied. I must say, however, that I am very pleased to have filled this chair, and to have met to-night those whom I honour and respect.

The company then separated.

FROM ABROAD.

Extra-uterine Pregnancy.

Dr. Gaillard Thomas, at the seventh annual meeting of the American Gynæcological Society, read a paper (*Boston Med. Jour.*, September 28, and *Phil. Med. Rep.*, October 14), entitled "Notes of Twenty-one Cases of Extra-uterine Pregnancy." After referring to our knowledge of the subject gained in the past ten years, and declaring his belief that ten years later the diagnosis and treatment of this class of cases would have become as certain as are those of abdominal tumours now, he briefly reviewed each of the twenty-one cases which had come under his personal observation. In five cases there was rupture of the sac, four proving fatal. In seven he interfered surgically, and three died. Two were tapped by the vagina, and both died. In three cases there was spontaneous discharge of the contents of the fœtal tumour, one patient dying. Electricity was used in six cases, and nearly all recovered. He had generally used an interrupted galvanic current with seventeen cells, with one pole in the rectum and the other over the tumour, continued for a few minutes at a time, for several sittings.

The symptoms in most of the cases were those of normal pregnancy accompanied by (1) irregular gushes of blood, ceasing and suddenly recurring without assignable cause; (2) fixed grinding pain in one iliac fossa, and perhaps also down the corresponding thigh; (3) severe paroxysmal pain, with constitutional symptoms, soon passing off, to return in a few days with increased violence; (4) symptoms of abortion, without any appearance of the fœtus; (5) the expulsion of membranes without any fœtus. The physical signs which sustained the validity of the diagnosis were—(1) increased size of the uterus, with displacement upwards, forwards, or laterally; (2) symptoms of vacuity in the uterus, yielded by the passage of the uterine sound or the use of tents; (3) the presence to one side of, or behind the uterus, of a cystic tumour, somewhat painful, rather immovable, yielding to palpation a sense of obscure fluctuation, and sometimes (though not of necessity) *ballottement*. In advanced cases, the placental *souffle*, fœtal heart, and fœtal movements will be present; but in the tubal variety (which is most common) death occurs too soon to allow of these means of diagnosis. To distinguish between a normal and an extra-uterine pregnancy, Dr. Thomas would dilate the cervix with a tent, and explore the uterine cavity with his finger: though the presence of a fœtus in the uterus would not disprove extra-uterine fœtation, as they might co-exist.

He draws the following conclusions:—1. If the diagnosis be well settled before the fourth month, he would destroy the life of the fœtus by electricity, in preference to all other methods. It would be harmless if the diagnosis were wrong; it avoids the nervous disturbance caused by a cutting operation, and it requires no surgical skill. 2. Should the fourth month have passed, and surgical interference be called for, laparotomy (or, with the tumour low down in the pelvis, elytrotomy) should be preferred to electricity, which would leave a large fœtal body for absorption. 3. Should the pregnancy be abdominal, the practitioner might watch and wait until full term, and deliver by laparotomy or by elytrotomy and the forceps or manual delivery. 4. Should the full term be passed, and the fœtus be dead, he should wait and watch, and aid Nature when she demonstrates the outlet by which she desires extrusion to be effected. If bad symptoms, under these circumstances, at any time come on, laparotomy should be performed under strict antiseptic precautions. 5. Should rupture of the fœtal cyst have occurred before diagnosis have been fully made, he should wait and see whether Nature be powerful enough to overcome shock, to control hæmorrhage, and, further, whether the patient is

going to escape the dangers of peritonitis and septicæmia. If these favourable results do not occur—if hæmorrhage is about to destroy the patient immediately, or if septicæmia attack her later,—laparotomy, followed by antiseptic cleansing, should be promptly adopted.

Foreign Bodies in the Air-Passages.

Dr. Elsberg, Professor of Laryngology and Diseases of the Throat, Dartmouth Medical College, New York, in a paper published in the *Philadelphia Medical Times*, July 29, lays down the following propositions:—

1. A person with a foreign body in the air-passages should never be left without medical care. Although recovery from the effects of a foreign body has taken place, even though the person received no attention at all, yet such a person is always, and for a long time, in a dangerous condition. No such case should be left to nature; and even if the foreign body, when we see the patient, produce very little disturbance either locally or in the general condition, it is of grave import as long as it remains in the air-passages. Even its removal does not confer immediate safety, for disease or death may yet be the consequence of its sojourn. 2. Medicinal treatment is in most cases insufficient, and emetics are dangerous. Expulsion of a smooth and rounded foreign body has followed the use of emetics, but their danger has been so often proved that they should only be given with the greatest caution. During reteching and vomiting the larynx is compressed; sharp bodies may become firmly impacted, and alarming or even fatal spasm of the glottis, or closure of the rima, may occur. 3. Expert laryngoscopical procedure for removal should be had whenever possible. The laryngoscope has much facilitated the removal of foreign bodies. "I have removed thread, pin, needle, nut-shell, fruit-stone, seeds, peas, bone, bean, buttons, coins, artificial teeth, etc., especially from the pyriform sinuses and upper laryngeal cavity, which it would have been utterly impossible to remove without the laryngoscope." Every practitioner should familiarise himself with this instrument; but if he be not familiar with it he should send his patient to an expert. Local anæsthesia, produced by applying morphia and chloroform directly to the parts, has aided in the laryngoscopical removal of bodies from the upper air-passages in several instances. In other cases, general anæsthesia has done so. 4. Prophylactic tracheotomy should be performed at the slightest indication in every case in which immediate removal is impossible. In every case of threatened suffocation from obstruction by the body in the upper air-passages, in which, on account of either the patient's condition, the practitioner's want of expertness, or the nature and seat of the body, immediate or laryngoscopical removal is impossible, tracheotomy should be performed *without any unnecessary delay*. The first attacks of suffocation from the ingress of the body are frequently followed by a period of calm and comparatively easy respiration. The practitioner seeing the patient during this period may be misled as to the gravity of the case. But while the body is in the air-passages the calm is deceptive and of short duration, and should not be regarded as a contra-indication to prophylactic tracheotomy. If the body be seated below the point where the windpipe can be opened, the operation, even when not performed as a direct prophylactic measure—*i.e.*, to prevent immediate asphyxia,—should be done for the purpose of facilitating the removal of the offending substance; and the operation often acts, no matter whether the body be seated above or below the opening, as a curative measure. For immediate prophylaxis, instead of tracheotomy, the more easy and less dangerous operation of interthyro-cricoid laryngotomy (*i.e.*, the cutting and introducing a tube through the thyro-cricoid membrane) may be performed in appropriate cases, and under pressing circumstances, with one properly directed plunge into the larynx, though, as a rule, the air-passages should not be incised at any place without having first dissected overlying structures, thoroughly laying the part bare, all bleeding having been stopped. 5. Proceedings, dangerous and often unsuccessful before tracheotomy, can, if needful, be safely resorted to, and with increased chances of success, after its performance. Slapping a person on the back or front of the chest is a common procedure to produce ejection, and, when not successful alone, is combined with inversion of the body or of the head, extension on an inclined plane, etc. The slap is given when the patient coughs or rapidly empties his lungs after a deep inspiration. These manœuvres are sometimes successful, but they are always dangerous without tracheotomy on account of the possibility of the occurrence of glottic spasm. Instruments should always be ready for opening the windpipe, in case serious dyspnœa occurs. After tracheotomy, these procedures cease to be dangerous, and the chances of their success is much greater. And emetics (the best of which is apomorphia applied hypodermically) may now, if otherwise indicated, be safely resorted to. The finger is an exceedingly useful means for the recognition and extraction of foreign bodies; and both before and after tracheotomy it has in many cases served a better purpose than any instrument could have done. Altogether it is wonderful, and must be tried to be fully realised, how far into the air-passages an expert's finger can occasionally extend. *Exploration with the finger should in no appropriate case be omitted.* We can always assure ourselves by its means that the epiglottis is not pressed down upon the air-passage, and that the way is clear to the laryngeal aperture. After tracheotomy the finger introduced into the wound may push a body upwards into the mouth; and it may, as first pointed out by Sands, of New York, reach downwards to the bifurcation. 6. For impacted foreign bodies which cannot be removed *per vias naturales*, if not lower down than the superior laryngeal cavity, "subhyoidean pharyngotomy," and, if lower down, either crico-tracheotomy or tracheotomy below the thyroid body are the preferable operations instead of thyrotomy. The only rule for selecting the place for operation that has been hitherto given, is to operate at the nearest possible point to the body to be extracted; but this, though very good as a general direction, is not a definite guide for special cases, and sometimes cannot be followed with safety or satisfaction. Thus, the advice is objectionable to divide the thyroid cartilage in every case in which the body is impacted in one of the ventricles of the larynx, because sometimes a much more advisable operation may be successful, etc. While the two operations for tracheotomy are well enough known, that of *subhyoidean pharyngotomy* has not as yet been often performed, and has been misapprehended by many. It differs from what may be called "supra-thyroid laryngotomy" by opening the air-passage above the free border of the epiglottis. It consists in an incision along, and parallel to, the lower edge of the hyoid bone, through the skin and subcutaneous tissue, the fascia and fibres of the platysma, the inner portion of the sterno-hyoid and hyo-thyroid muscles, the hyo-thyroid membrane, and the mucous membrane between the root of the tongue and the epiglottis. The superficial incisions are made longer than the deep, so that the wound may taper down from five or six centimetres to about three. Though usually no important vessels are encountered, the larger branchlets should be ligatured or twisted. Care must be taken not to cut the epiglottis, as such an accident would frustrate the object of the operation. The inspection of the larynx would be impossible, and the wound would be far more serious than the operation otherwise is. Careful palpation of the hyoid bone outside, and the insertion of the finger—as far down as possible—through the mouth, will, in most cases, approximately at least, determine the relative positions of the tongue and the epiglottis. Before incising the mucous membrane, not only should these relative positions be ascertained, but, by means of a tenaculum embedded in the areolar adipose cushion of the epiglottis, the latter must be forcibly pulled downwards, and, if this be not sufficient, the hyoid bone must be pulled upwards, so that the epiglottis may escape section. On seizing the epiglottis and turning it forwards or drawing it out of the wound, there is nothing to prevent our inspecting or operating upon the larynx. The final object in view being the extraction of the impacted body, no matter what operations may have already been performed (*i.e.*, first, prophylactic tracheotomy; and second, subhyoidean pharyngotomy, or high or low tracheotomy), what remains to be done may test the skill, ingenuity, and fertility of the operator. Of the three steps of the entire operation here indicated, the first, prophylactic tracheotomy, or, as the case may be, prophylactic interthyro-cricoid laryngotomy, may, especially in a chronic case, have been taken long before the other two, or it may immediately precede them, in order to maintain uniform respiration during their performance, or expected difficulty afterwards. The second step (*i.e.*, the gaining access to the impacted body) and

the third (*i.e.*, the extraction) must usually follow each other immediately. Whether pharyngotomy or laryngotomy be performed, it is desirable to have the opening made large enough for future procedure. If, after the operation, the body is not in view, and the precise point of its impaction not known, the finger or a probe or searcher must be used. That very much may be done by the finger has already been stated, and almost any instrument applicable for extracting may be used as a searcher.

"In conclusion, I desire to reiterate the propositions—(1) that every physician ought to acquire a sufficient degree of practical familiarity with the use of the laryngoscope to apply it in cases of foreign body in the air-passages; and (2) that every physician, whether he be a general practitioner or specialist in any department of medicine or surgery, ought to be prepared and willing to perform tracheotomy in every urgent case."

REVIEWS.

The Truth about Opium. By W. H. Brereton, late of Hong-kong. London: Allen and Co. 1882.

The author having practised as a Solicitor at Hong-kong for fifteen years, has had ample opportunities for observing the custom of opium-smoking and its effects, as well as of becoming acquainted with the details of the trade in opium. Under these circumstances, Mr. Brereton "had daily intercourse with the people from whom the best and most trustworthy information on the subject of opium can be obtained, and his experience is that opium-smoking, as practised by the Chinese, is perfectly innocuous." Our readers will scarcely be prepared for such a positive statement, so assiduously and perseveringly has the contrary opinion been reiterated, until the public mind has become educated in the conviction that opium-smoking is a fearful and horrible path to the grave; that its indulgence is a sin, its encouragement a black atrocity, and that all concerned therein are sinners above all others.

"A benevolent stranger, arriving in China, desiring to see and judge for himself, applies to the missionary, who calls his servant, or *boy* as he is called in China. 'This gentleman,' he says to the latter, 'wants to know about opium-smoking. Take him to the Tung Wah, and to an opium-shop, you savee?' 'Yes, my savee' (meaning 'I understand'), returns the boy, who is, of course, a devout convert, but who in private often indulges in the iniquity of the pipe. On they go to the Tung Wah, which is the Chinese hospital, where he is shown some ghastly-looking men, all either smoking the 'vile drug' or having opium-pipes beside them. Two or three are shivering with ague; another is in the last stage of dropsy; another is in a consumption; and so on. They are all pitiable-looking objects, wasted, dirty, and ragged. Poor Mr. Howard shrinks away in horror. 'Are all these men dying from opium-smoking?' he asks of his guide. 'Yes, ebdy one; two, tree more days dey all die. Oh! velly bad!' says the person questioned, well knowing that what he has said is false, and the poor creatures before him are only honest decent coolies in the last stages of disease, who until they entered the hospital may never have had an opium-pipe in their mouths. 'Their poverty, not their will consented.' They had been admitted but a few days before to the Tung Wah, where the Chinese doctor had prescribed for them opium-smoking as a remedy for their sickness, and a relief for their pains. Poor Mr. Howard leaves the hospital, bitterly reflecting upon the wickedness of the world and of his own countrymen in particular."—Page 83. He and his guide then proceed to the opium-shop, whither we cannot, however, spare time entirely to follow them, but may sum up the result of their visit in their being deceived and befooled by three scoundrels who impose upon the visitor's credulity. The details of the deception may be read in Mr. Brereton's book.

The intemperate language and reckless statements of the opponents of the opium trade are here exposed by Mr. Brereton, and his criticisms are supported by the authoritative documents printed in an Appendix, as well as by papers specially contributed by Mr. W. Brend, Sir George Birdwood, and Dr. Ayres, all of whom have had opportunity of personal observation. To these is added a chapter on Opium-Smoking by Dr. Thudichum.

It must be observed that throughout this work the subject of opium-smoking is discussed entirely apart from that of opium-eating. The upshot is that smoking of opium in the ordinary way is simply parallel to the habit of tobacco-smoking in England. The *Rangoon Times*, writing on the spot (August 2), alleges the utter untruthfulness of the harrowing descriptions put forth with regard to opium-smokers:—"Every day artisans can be seen smoking an opium-pipe—walking, standing, sitting,—drop their work for a few minutes to take a few whiffs of their long pipes, lay them down, and proceed to work again, a dozen times a day, with no more concern than a European would display over a dozen cheroots, the effect on the smokers being in all cases equal, that is apparently *nil*." That opium-smoking is not so highly and necessarily injurious as many persons believe and teach, we are much disposed to think; and we have certainly seen it beneficially employed in some nervous affections. Its effects, even when carried to excess, are—at first, at any rate—rapidly thrown off. We have known an instance in which a medical student, having, by way of experiment, smoked about three or four grains with his tobacco, almost suddenly passed into the stage of complete stupor, in which he remained for seven or eight hours. On waking, he was, of course, ignorant of all that had passed from a short time after the smoking, but he suffered no subsequent ill effects from the somewhat rash venture. From such facts as these, and from the statements contained in Mr. Brereton's book, it seems a point deserving of consideration, whether this mode of exhibiting opium may not prove in some affections a valuable therapeutic agent.

Medical Diagnosis: a Manual of Clinical Methods. By J. Graham Brown, M.D. London: Simpkin, Marshall, and Co. 1882. Pp. 303.

In this book Dr. Brown has attempted to give an outline of the symptoms due to disease or defect of every organ and tissue in the body: it is evidently, then, an ambitious little work, but we may say at once that we can congratulate the author on the thorough and complete manner in which he has performed his task. The range of medicine is now so vast that to master all the various methods of physical examination in the short time allowed for the student's curriculum is becoming a matter of real difficulty; hence the publication of a work which in the compass of a single, not large, volume embraces almost every known method of investigation is a most timely occurrence.

The circulatory and respiratory systems come in for the largest share of our author's attention, as is only right and proper, no less than 130 pages being devoted to a consideration of these subjects. Probably the most original work in the book is that contained in the chapter on the theory of percussion. The author insists that, strictly speaking, the word "note" as applied to percussion is a misnomer, seeing that a percussion note has no prime or fundamental tone. The reason of this he is careful to point out in the following words:—"When percussion is made at any point of the chest-wall the air in the lungs is set in vibration, and the point which is struck may be considered as the point of divergence of a series of radiating air-columns, whose lengths may be represented by lines drawn from the corresponding point on the visceral pleura to the opposite walls of the thorax in all directions. The lengths of these very numerous columns of course differ considerably; and since an air-column, when set in vibration, produces a note proportionate in pitch to the length of the column, the numerous notes which go to make up the percussion sound vary considerably in pitch." The succeeding chapter on percussion of the chest is worthy of close attention, but want of space prevents us from alluding to it in detail.

The chapters on the urine are perhaps as complete and exhaustive as any in the book, though we think that *Bilharzia hæmatobia* is a disease sufficiently well known in this country to deserve more mention than "very rarely the embryo forms of parasites which infest the blood are found in the urine,"—with which observation Dr. Brown dismisses the subject.

We cannot close this review without calling the author's attention to two omissions, both of instruments to aid us in making a diagnosis in certain cases. In one instance—that of Duchenne's harpoon—the omission is excusable, as the instrument is only used for a very special purpose; but the

exploratory syringe ought most certainly to have been noticed in a work which treats of the diagnosis of thoracic affections. Given a person with one side of the chest bulging, dull on percussion, the interspaces filled out, and the heart displaced, we would rather have a syringe than a stethoscope to aid us in completing the diagnosis.

Taken altogether, this book is as good as any of the kind that we are acquainted with.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 14.

JOHN MARSHALL, F.R.S., President, in the Chair.

THE ENDEMIC HÆMATURIA OF THE SOUTH-EAST COAST OF AFRICA.

DR. JOHN HARLEY communicated the above paper by the late Dr. Vasy Lyle, of Durban. The author, in the first place, discussed the physical characters of the infested country, and the extent of the country infested. He stated, as an almost completely proven fact, that the bilharzia infested the whole eastern littoral of Africa from Egypt to the Cape, and that the entozoon found amongst the people of the Nile valley was identical with that found in South Africa. It appeared to inhabit the sluggish parts of rivers and low marshy lands, and to be absent from high lands, the interior plateau of South Africa being free from the disease. The present immunity of Port Elizabeth was attributed to the substitution of rain-water stored in tanks for that of wells and pits. Opportunities had been obtained of examining the bladder in a case of the disease, and both the male and female parasite. The bladder in one case was healthy near the neck, but crossed thence diagonally to the fundus by fungous-looking growths, and the mucous membrane over these was granular and ulcerated, and contained embedded ova. One female bilharzia was dissected out. The author agreed generally with the description given of the parasite, but differed in some minor points. In reference to the symptoms and progress of the disease, he remarked that no symptoms of the affection had been observed antecedent to the appearance of the hæmaturia, the general course of the disease being that described by Dr. Harley in his communications to the Royal Medical and Chirurgical Society. Illustrative cases were given, and one of them contained the evidence of a Kaffir on the prevalence of the disease amongst the natives.

DR. COBBOLD said that, in the hope of obtaining a satisfactory demonstration of the living ciliated embryos of bilharzia, he wrote to seven gentlemen who had been under his care during the present year, all suffering from endemic hæmaturia. Six of these patients contracted the disease in Egypt, and one in Natal, and all alike attributed their infection to the drinking of unfiltered water during shooting or other expeditions. Most of them became infested by bilharzia in the neighbourhood of Suez, where they bathed in, and also drank from, the "Sweet-Water Canal," as it is euphoniously called. Thinking to add interest to the subject, he had brought with him adult examples of *Bilharzia hæmatobia* and *B. bovis*, the former being contributed to his collection by Professor Leuckart, and the latter by Dr. Prospero Sonsino, who, in transmitting the specimens, availed himself of the kind offices of Sir Joseph Fayrer. It would serve to clear the ground somewhat by reminding the Society that this remarkable human parasite was discovered by Bilharz in 1851; that the same species was afterwards detected by himself in an ape that died at the Zoological Gardens in 1857; that Dr. John Harley's "find," whereby a considerable extension of our knowledge of the geographical distribution of the parasite was affected, took place in 1864; and that Sonsino's discovery of bilharzia in the ox and sheep occurred in the year 1876. That the parasite of cattle was a distinct species was clearly proved by the circumstance that the eggs of *B. bovis* were of a totally different shape from those of the human worm. In fact, they reminded one of the singular spindle-shaped ova of Echinorhynchi, at first called a *distoma* by Siebold and Bilharz. The parasite was subsequently named bilharzia by himself, gynæcophorus by Diesing, schistosoma by Weinland, and thecosoma by Moquin-Tandon—the last-named naturalist mistaking the sexes, and regarding the stout male worm as the female. As for obvious reasons the term distome (in which genus the sexes were combined) could not be allowed to stand, it had generally been agreed to accept the term bilharzia, not merely on account of the fact that this nomenclature was proposed by the speaker some months previous to that offered by Diesing at the Vienna Academy, but chiefly because it was held to associate the name of the original discoverer with the parasite in a very convenient form. In reference to the clinical aspects of the subject, he went on to say that the facts recorded by him in 1870, respecting the case of a little girl who contracted the disease in Natal, had been verified and extended by investigations made this year; and he had reason to believe that the young lady, who had now grown to womanhood, was in a good state of health. Tens of thousands of the eggs of bilharzia formerly passed with her urine daily, and the amount of bleeding was excessive, producing anæmia of the gravest character. Then, as now, he witnessed the process of hatching, the singular behaviour of the swimming ciliated larvæ (which might be seen in the adjacent room), the changes produced by reagents of various kinds, and the existence of a water-vascular system. Although in 1870 he discovered larval nematoid worms, which were referable to *Filaria sanguinis hominis*, in the seven cases recently under observation the filariæ were not present. As regards treatment, the methods hitherto adopted might be characterised as of three kinds—heroic, rational, and "do-nothing." The method by medicated injections, which had recently been so warmly espoused by Dr. Allen, was, in the speaker's opinion, altogether a mistake, and he could not for an instant accept the conclusions at which that experienced surgeon had arrived. The "do-nothing" policy was, he also thought, reprehensible. In such a grave malady our principle should be to assist Nature in working out her method of cure, that is, if we could not actually destroy the worms by means of parasiticides. He had employed such remedies as buchu, bearberry, hyoscyamus, iron and quinine, strychnia, and also arsenious acid and perchloride of mercury, the latter in doses of one-twentieth of a grain thrice daily. If these remedies had not cured the patients, they had at least effected much good; but in obtaining the good results it should be added that something had been gained by strict attention to diet and regimen. In one case the patient had increased very nearly a stone in weight, and had been enabled to perform official work eight hours daily without fatigue. One of the palest, though not perhaps the clearest, examples of urine on the table was from a gentleman who, when he first presented himself for treatment, was passing water which on standing for a few hours became of a deep-red, almost chocolate colour, and at the same time excessively foul-smelling. His was a case in which Dr. Cobbold despaired of effecting any good, especially as the hæmaturia was associated with renal disease; nevertheless, his general health had materially improved; and when, only that morning, he had asked this gentleman what he believed to be the real cause of his improvement, he at once pointed to the medicine at first employed, namely, mixtures of which buchu was the principal ingredient.

DR. CROCKER mentioned the chief facts in connexion with the case from which his specimens were taken. There was blood in the urine, and on examining it a little closely some minute bodies were detected, which, under the microscope, proved to be the ova of the Bilharzia. The child was improving considerably under treatment, and the hæmaturia had almost disappeared.

DR. JOHN HARLEY thought that, as regards treatment, we had to do with a few adult worms in the bladder, prostate, or urethra. He believed that they gained ingress through the urethra while the patient was bathing; and the natives of Africa seemed also to hold some such view, because it was their custom to tie a reed round the penis for the purpose of preventing their entrance. Lucy also believed largely in this being a local disease. He, on this account, had long since urged local treatment, and with himself this had proved successful. He referred to the two sons of a medical man living in Port Elizabeth, who had apparently quite recovered after passing small nephritic calculi. The apparent disappearance was sometimes delusive, and it was necessary

to examine the urine very carefully before coming to the conclusion that the parasite had been got rid of.

Mr. A. P. Thomas, of Balliol College, Oxford, gave an account of his recent discovery of the life-history of the liver-fluke (*Fasciola hepatica*), exhibiting specimens of the numerous larval forms and the small snail which serves as intermediate host. The liver-fluke, he said, was always common in certain parts of the country, but in the season 1879-80 the ravages of this destructive parasite were so widely extended and so serious that three million sheep were destroyed by it. It was therefore a matter of national importance that the manner in which liver-rot was incurred should be worked out, in order that appropriate preventive measures might be employed; and the Royal Agricultural Society of England made a grant to Mr. Thomas for the research. From what was known of the worms most nearly allied to the liver-fluke, it was supposed that larval forms existed within the body of some molluscan host or hosts; but all previous attempts to discover the intermediate host had been fruitless. The clue to the mystery was not discovered until after six months' work, when, in December, 1880, a cercaria was found in *Limnæus truncatulus* under circumstances which rendered it extremely probable that this was the long-sought larval form of the liver-fluke; and the proof had since been supplied. The liver-fluke produced vast numbers of eggs: these passed with the bile into the intestine, and were distributed everywhere with the droppings of the infected animal. If they fell on to wet ground, or were washed into ditches, etc., development proceeded, and a ciliated embryo was formed in each egg. The embryo swam through the water in search of a host, and as soon as it came in contact with the suitable snail (*Limnæus truncatulus*) it forced its way into the snail by means of a boring organ at its anterior end. Arrived within the snail, it underwent a metamorphosis, and became a sack-shaped sporocyst, which produced internally rediæ, or nurse-forms more highly organised than the simple sporocyst. The rediæ in turn produced tailed larvæ resembling tadpoles in shape, and known as cercariæ. As the cercariæ became mature they left the rediæ, passed out of the snail, and encysted on grass, close to the roots. The body of the cercaria became round, and a substance was exuded from its surface, which hardened to form a protective cyst, whilst the tail was cast off. Sheep and other animals grazing on infected ground picked up the minute cysts with the grass. The snail which served as host to the larval forms was very small, being only a quarter of an inch in length, and, though it belonged to the water-snails, was oftener found out of water than in it. The liver fluke was found occasionally in man, and there the cysts were most probably introduced on watercress. Salt was the great means of prevention of the disease. Both the snail which served as host and the larval forms of the fluke were destroyed by salt.

Dr. Cobbold remarked that Mr. Thomas's beautiful researches had done him infinite credit, inasmuch as step by step he had worked out the genesis of the liver-fluke in a far more complete manner than had hitherto been attained in the case of any of the other flukes, whose cycle of development had been determined. There were, in point of fact, at least nine species of flukes, whose intermediary bearers were known, and of those time would only permit him to point to the *Distoma clavigerum*. The rediæ and cercarial forms described by Mr. Thomas were very like those described by Pagenstecher from *Planorbis corneus*. For nearly two years past he had publicly taught that *Lymnæa truncatula* was the intermediate host of *Fasciola hepatica*. It was so stated in his memoir on the Parasites of Elephants, read to the Linnean Society, February 7, 1881. He based this teaching on published statements and on a confirmatory letter received from Professor Leuckart, the supposed discoverer. It now appears that Mr. Thomas really anticipated Leuckart, for the eminent German had at first been experimenting, not with *Lymnæa truncatula*, but with *L. peregra!* His malacological information was evidently not so accurate as his helminthology. At all events, Leuckart's investigation was not fraught with entirely negative results, for he infected *L. peregra*, and afterwards *L. truncatula*, which latter name is usually called *Lymnæus minutus* on the Continent. In conclusion, he would say with emphasis, that, even if it should be proved that Leuckart had priority in this brilliant discovery, it would (as in the well-known mutual and parallel claims of Adams and Leverrier in respect of the planet Neptune) be no small honour to Mr. Thomas to have his name bracketed with that of Professor Leuckart as the successful expositors of the entire life-history of the common liver-fluke.

Dr. George Harley mentioned the case of a man from Devonshire, who was found, post-mortem, to have several flukes in his hepatic vein. It was found that his diet had largely been bread and cheese and watercress.

The President said the Society was indebted to Mr. Thomas for a most interesting communication. The importance of the discovery could not be exaggerated. He thought we should do well to study disease in the lower animals, and that it would often throw light on the diseases of the human species.

Specimens of the entozoa alluded to in this discussion were shown by Drs. Bastian, Cobbold, Crocker, and Mackenzie, and by Mr. Thomas; of which mention was made in our last issue.

The Society then adjourned.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Friday, November 17.

Dr. Teipe, President, in the Chair.

At this meeting a paper was read by Mr. Rogers Field, B.A., M.Inst.C.E., on "Some of the Less Recognised but Important Points in the Drainage and Ventilation of Houses." The subject, Mr. Field said, was a wide one, and he would not waste the time of the Society by dilating on the evils of D traps, unventilated soil-pipes, and such grosser violations of sanitary science; nor would he treat of ventilation otherwise than as it influenced the path followed by sewer-gases in and through a building. He would begin by laying down three propositions which might seem to be truisms. But as the strength of a chain is that of its weakest link, so if the smallest detail were overlooked, the effect of all other precautions might be neutralised: and, in fact, it was rare in the extreme to find a house where there was not a defect in some part of the arrangements. He justified this sweeping assertion by numerous examples drawn from his own experience and by some instances reported by other men. The three laws of house-sanitation were these:—1. That all refuse matter shall be immediately and completely removed from the house; 2. That there shall be no ventilation of the drains into the house; and 3. That there be no connexion between the drains and the water-supply. With regard to the first, he remarked, it was a great mistake to suppose that when a bad smell was perceived at the aperture of a drain ventilator, the latter was but doing its duty efficiently. On the contrary, any such smell was evidence of deposit within the drain, and therefore a violation of the first rule. It was astonishing how trifling an irregularity in the jointing or what a small obstruction in the pipe would lead to a deposit, and what an offensive odour a scarcely visible deposit might give off. The presence of a coil of wire or mass of hair or a collar of cement protruding inwards at a joint was enough. Again, it was commonly thought that if water ran rapidly and freely down a pipe-drain, the drain was all right, when perhaps a great part of it escaped beneath the floors: of this he gave a number of striking examples. Setting aside those cases—more frequent than any unacquainted with the unscrupulousness of builders would imagine—of drains leading nowhere or laid without any cement, he maintained that no cement joints, however honestly made, were trustworthy, and that in every case they should be tested by closing the further end, filling the drain with water, and noting after some hours if there were any fall of its level. It was again an error to suppose that the soundness of the joints was of less moment when the drains lay entirely outside of the house, for gases may be drawn into a dwelling from great distances by the warmth of the rooms, especially if the soil be loose. In a case reported by Dr. De Chaumont, coal-gas passed from a leaky main twelve feet from the walls beneath the frozen surface of a gravelly soil, causing the death of two persons, a third surviving only by falling with her face close to the bottom of the door; and cases were

on record in which coal and sewer gases had been conveyed for even greater distances. Among other dangers coming under this head were the retention of D traps beneath new closets; a form of valve closet much used at present, with a trap nearly as large as the old-fashioned container and no better than a D trap, instead of a well-turned and narrow syphon; hoppers with spiral flush; and a common syphon trap with a central opening for inspection, beneath the stopper of which filth is apt to adhere. The dangers arising from a neglect of the second rule against the admission of sewer-gas into the house, include the mere closing with cement or even leaving open of old waste-pipes from sinks when new intercepting traps are fixed, the omission to remove entirely old drains, brick or pipe, when laying new drains beneath or out of a house, the discharge of bath, lavatory, or sink wastes directly over the hopper tops or into rain-water pipes leading into the drain; and the practice of some eminent architects of dispensing with traps altogether in disconnected waste-pipes discharging into hoppers or over gulleys. The land drains laid under houses in some instances were in direct communication with the sewer. Where such pipes are laid to carry off the ground or surface waters, they should lead to a tank in the country or to an intercepting trap in towns. In tracing the passage of foul air through houses new factors are introduced, as the suction of fires, the force and direction of the wind, the opening or closing of doors and windows; and we must take account of the various apertures and cavities in walls and floors, the effect of carpets in diverting currents, etc. Besides the crevices between ill-fitting floor-boards, the chasing of door and window frames, the chinks around the exits of gas-pipes and the tubes or passages for bell-wires play an important part. Smoke-paper or ether must be employed to trace these currents, and all such circumstances as fires, open or closed doors, etc., must be carefully reproduced and variously combined in the experiments. Of the action of bell-wire channels he gave some curious examples, as one where the smell of some offensive shoe-blacking passed from a cupboard in the basement to a bedroom on an upper floor, verified by the substitution of fragrant pastilles; and another of the kitchen odours gaining access to a lady's boudoir. The story of the illness of the Duchess of Connaught at Bagshot Park he gave in detail, with diagrams showing how the bed was out of the current, but the sofas on which Her Royal Highness lay when convalescent from her confinement, both in her bedroom and in the Duke's dressing-room, were directly in it. It was then that the symptoms of epticæmia first appeared. His investigation of this case was fruitless until he had the fires lighted and the floors covered with paper, the carpets having been removed for cleaning. But most interesting was the case of Twyford Grammar School, where for some years the occupants of one particular bed, the third in its row, were constantly attacked with low forms of pneumonia and typhoid symptoms. Mr. Field traced the cause to the emanations from a foul gulley in the lavatory which passed up the stairs through a swing window kept always open, and, striking the ceiling, were deflected downwards at the same angle that the window had given to the current on to the bed in question! With the removal of the defective waste arrangements the illness ceased to haunt that bed. As to the third rule, the only safe method is to have the overflow-pipe of the cistern discharging in mid-air, far from any gulley or pipe having any connexion with a drain. Even then, birds have been known to get up the overflow-pipe and be drowned in the cistern, causing diarrhœa and other symptoms before the water was appreciably fouled. Not only diphtheria, diarrhœa, pneumonia, erysipelas, typhoid fever, and sore throats may be caused by the entry of sewer-gas into houses, but vague feelings of malaise and headaches, attributed to any cause but the true one, are among the consequences that Mr. Field has most often met with.

In the discussion that followed, Drs. Buchanan, De Chaumont, Corfield, Tripe, and Poore, and Mr. Jacob gave similar instances, met with by themselves, of the erratic course pursued by sewer-gas in its passage through houses, and of the grossly culpable practices of builders and plumbers. Dr. Tripe observed that in his district of Hackney all drains carried beneath new houses are required to be bedded in concrete; to which Mr. Field replied that he preferred asphalt as less pervious. Referring to the drawings of valve closets, Mr. Jacob questioned the utility of the overflow-pipe, which, unless so placed as to receive a part of the flush, was apt to became dry and to serve as an inlet for foul air. He had recommended its closure with cement. Mr. Field expressed his entire agreement with these suggestions, and hoped that, in future, the makers would dispense with it altogether. A deep safe beneath the pan, with a waste-pipe passing through the outer wall, would amply provide against the risk of overflow in the event of servants neglecting to raise the handle while emptying slops, or of the flushing valve becoming incompetent and allowing the pan to flow over.

In reply to some remarks of Dr. Bate as to the offensive effluvia given off from the ventilation in the London streets, Mr. Field admitted the imperfect construction of the sewers, which was a strong argument in itself in favour of the exclusion of sewer-gases from the houses. Dr. Willoughby referred to the statement of Dr. Varrentrap, that in the fifteen years that the new sewerage of Frankfort-on-Main had been in operation, no deposit had ever been formed requiring the entrance of a man into the sewers for its removal.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, NOVEMBER 6.

Mr. S. LEE RYMER, L.D.S., President, in the Chair.

SOME interesting casual communications were made by Messrs. A. Coleman, Charles Tomes, and Redman. The latter showed an upper molar, the pulp-cavity of which was almost completely filled by a mass of secondary dentine. The patient, a lady, had suffered for several years from acute attacks of pain, which she referred to this tooth; but it appeared so perfectly sound that none of the dentists whom she had consulted would consent to extract it. Mr. Redman also could find no evidence of anything wrong until he directed a very strong light upon it; he then noticed that whilst the neighbouring teeth appeared slightly translucent, this one was opaque. He therefore diagnosed calcification of the pulp, and the subsequent examination proved this to be correct.

Dr. ALFRED CARPENTER, of Croydon, read the paper of the evening, entitled, "A Consideration of some of the Causes which lead to Dental Decay." He first traced the history of dental caries, so far as it could be gathered from early writers, and from a careful examination of ancient burial-places, showing that although never so generally prevalent as at present, caries was not a new disease, and that the evidence thus obtained went to prove that luxury, indolence, and vice tended very much to promote the development of the disease. He then went on to discuss some of its predisposing causes. There could be no doubt as to the effects of inherited tendencies, such as the syphilitic and gouty, or of others of a less distinctly marked character, which showed themselves in the form of defective nerve-power or of inefficient nutritive force. Then there were the consequences of accidental injury to the fœtus or young child, of wear and tear of the organ itself, of improper diet, and other causes; most of these acted in early life, but improper diet was not an uncommon cause of disease in adults. The best example of this was seen in the loss of the teeth from scurvy, but less striking cases were frequently met with, in which loss of these organs was caused by gouty inflammation of the peridental membrane, brought on by indulgence in a too highly nitrogenised diet. Dr. Carpenter then discussed, in turn, the effects produced on the teeth by the tubercular, syphilitic, strumous, and gouty diatheses. The bad results of the first seemed to be due to imperfections of growth, certain groups of cells undergoing fatty degeneration instead of the normal calcification, producing structurally weak dentine, in which caries made rapid inroads unless promptly checked by proper treatment. Hereditary syphilis and struma produced marked effects upon the teeth, as they did upon other parts of the cutaneous system. The effects of the gouty diathesis were not so distinct, which might be due to the fact that this disease was not often fully acquired until an age at which procreation had ceased. Of the effects upon the teeth of the

rheumatic diathesis little was yet known. In conclusion, he called upon the dental profession not to be satisfied with improving their methods of treatment, but to look forward to the time when the prevention of disease would be considered by the dental surgeon of greater importance than its radical cure.

The discussion on the paper was postponed until the next meeting.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of candidates who have passed the recent M.B. Examination:—

First Division.—Edwin Leonard Adeney, Guy's Hospital; Herbert Hatfield Back, St. Bartholomew's Hospital; John Williams Batterham, Westminster Hospital; Dudley Wilmot Buxton, University College; David Collingwood, University College; Oswald James Currie, Guy's Hospital; William Radford Dakin, Guy's Hospital; Edward Alfred Dingley, University College; William Eckett Fielden, Guy's Hospital; Thomas Harris, Owens College; Richard Honeyburne, Liverpool Royal Infirmary and University College; David Alexander King, St. Bartholomew's Hospital; William Thomas Maddison, King's College; Robert Parry, Guy's Hospital; William Pasteur, University College; Reginald Pratt, University College; Mary Ann Dacomb Scharlieb, Madras Medical College and Royal Free Hospital; Lauriston Elgie Shaw, Guy's Hospital; John Hinks Vinrace, Queen's College, Birmingham, and University College; Malcolm Webb, Owens College; Alfred Ernest Wells, St. Thomas's Hospital; William Camac Wilkinson, B.A. Sydney, University College; Leonard Charles Wooldridge, B.Sc., Guy's Hospital.

Second Division.—William Coode Adams, University College; Benjamin Bertrum, St. Bartholomew's Hospital; George Coulson Robins Bull, St. Mary's Hospital; Harry Campbell, St. Bartholomew's Hospital; Thomas Edward Carter, St. Bartholomew's Hospital; John Clement Ellison, St. Bartholomew's Hospital; Charles Coleman Jewell, University College; Thomas Kirsopp, St. Bartholomew's Hospital; Leopold Larmuth, Owens College; Hubert Montague Murray, University College; Frederic Harvey Norvill, King's College; Charles James Pike, University College; Fredk. Robinson, Leeds Infirmary and Medical School; Waldemar Joseph Roeckl, St. Bartholomew's Hospital; Isaac Scarth, Owens College and London Hospital; Edith Shove, London School of Medicine for Women; Christopher James Watkins, University College; James Balls Woolby, King's College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 15th inst., viz.:—

Bailey, C. Frederic, Norwich, student of St. Bartholomew's Hospital.
Caiger, F. Foord, Gloucester-street, S.W., of St. Thomas's Hospital.
Cardwell, Thomas, Reading, of Guy's Hospital.
Cuff, Robert, Blackheath, of Guy's Hospital.
Dakin, W. Radford, Edith-road, W., of Guy's Hospital.
Davis, J. Warren, L.S.A., of Milford Haven, of the London Hospital.
Dun, W. Angus, M.D. Cincinnati, L.R.C.P. Lond., Cincinnati, of St. George's Hospital.
Ellison, W. Augustine, Windsor, of St. George's Hospital.
Fraser, J. Alexander, Blackheath, of Guy's Hospital
Harrison, John, L.R.C.P. Edin., Braintree, Essex, of Guy's Hospital.
Hodges, H. Chamney, Watton, Herts, of St. Thomas's Hospital.
Jennings, T. Munro, Newcastle, of the Newcastle School.
Kinch, G. Henry, L.R.C.P. Edin., Hilldrop-crescent, N., of Guy's Hospital.
Leon, Greville E., L.S.A., Hamilton, Bermudas, of St. Thomas's Hospital.
Masters, E. Ernest, Lewisham, of Guy's Hospital.
Mead, W. Rannigton, L.R.C.P. Edin., Blackheath, of Guy's Hospital.
Smith, Howard I., Teddington-park, N., of St. Bartholomew's Hospital.
Tailer, G. Arthur, Broseley, Salop, of University College Hospital.
Throwbrick, W., L.R.C.P. Lond., Great Glen, near Leicester, of St. Thomas's Hospital.
Woodhouse, A. E. Clayton, Hanover-square, of Guy's Hospital.

One gentleman passed in Surgery, and when qualified in Medicine will be admitted a Member of the College. Four candidates were referred to their studies for three months, and seven for six months. The following gentlemen were admitted Members on the 16th inst., viz.:—

Barnes, W. Stanley, L.S.A., Caversham-road, N.W., student of University College Hospital.
Cowen, E. Ingram, L.R.C.P. Edin., Dartford, of St. Thomas's Hospital.
Donald, James, L.S.A., Kingston-on-Thames, of the Charing-cross Hospital.
Dyson, Herbert J., L.S.A., Islington, of St. Mary's Hospital.
Harris, Howard, L.R.C.P. Lond., L.S.A., Gainsborough, Northampton, of the Charing-cross Hospital.
Hall, Walter, L.R.C.P. Lond., L.S.A., Swallow-place, W., of St. Thomas's Hospital.
Larder, Herbert, L.S.A., Wimbledon, of the Westminster Hospital.
Llewellyn, J. Davies, L.S.A., Glyn Neath, Glamorganshire, of the London Hospital.
Maynard, Edward C., Richmond, of St. Thomas's Hospital.
McDonogh, W. Frederick, L.S.A., Clapham-park-road, of the Westminster Hospital
Mosse, H. Ryding, L.S.A., Sutton, of the Charing-cross Hospital.
Peskett, A. W. Chalmers, L.S.A., Swansea, of the London Hospital.
Potter, J. Hope, L.R.C.P. Edin., Sheffield, of St. Thomas's Hospital.
Rolley, John, L.R.C.P. Edin., Todmorden, of the Manchester School.
Sharpin, E. Colby, Bedford, of St. Bartholomew's Hospital.
Underwood, J. Charles, L.S.A., Hemel Hempstead, of Guy's Hospital.
Wigan, C. Arthur, L.S.A., Portishead, of the Charing-cross Hospital.
Worthington, Sidney, L.S.A., Enfield, of Guy's Hospital.

Seven gentlemen were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and five candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. With this meeting of the Court of Examiners the examinations for the Membership were brought to a close for the present year. Mr. Thomas Bryant, Surgeon to Guy's Hospital, and a member of the Council, the recently elected member of the Court of Examiners, took his seat on this occasion.

The Fellowship.—At the half-yearly examination in Anatomy and Physiology for the Fellowship of the College, on the 20th inst., the following gentlemen were successful, viz.:

Elliott, John, student of the Manchester School.
Hamertoo, George A., of St. Thomas's Hospital.
Hughes, Edgar A., of King's College Hospital.
*Kayser, Jean S., of St. Thomas's Hospital.
Openshaw, T. Horrocks, of the London Hospital.
*Pedley, Frederick N., of Guy's Hospital.
Pilgrim, Herbert W., of King's College Hospital.
Richmond, Charles E., of the Manchester School.
Roberts, James R., of the Middlesex Hospital.
Taylor, Alfred E., of Guy's Hospital.
Thomas, David, of the London Hospital.
Thomson, Walter S., of the Middlesex Hospital.
Thorburn, William, of the Manchester School.
Tratman, Frank, of the Bristol School.

Six candidates were referred to their studies for six months. Those names marked with an asterisk are Members of the College. The following gentlemen passed on the 21st inst., viz.:—

Baillie, R. Alexander, student of Guy's Hospital.
Cotes, C. E. Henry, of St. George's Hospital.
Dawson, A. Willan, of King's College Hospital.
Dixon, Harold G., of Guy's Hospital.
Heatherley, Thomas, of Guy's Hospital.
Keightley, Archibald, of St. Bartholomew's Hospital.
Little, E. Muirhead, of St. George's Hospital.
Lysaght, W. Conner, of the Bristol School.
Miller, T. Hugh, of Guy's Hospital.
Morrison, J. V. Jackman, of Guy's Hospital.
Vernon, J. J. Dean, of Guy's Hospital.

Out of the thirty-six candidates examined, eleven having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for six months.

The following were the questions on Physiology submitted to the candidates on the 17th inst., when they were required to answer at least three out of the four questions between eleven and two o'clock, viz.:—1. Describe the nervous mechanism of the respiratory movements, and explain how it is excited and regulated. 2. Describe the manner in which the erect posture is maintained in man. 3. Describe the structure of the cortical grey matter of the cerebral hemispheres. What are its functions, and what is the evidence of localisation of centres in it. 4. Describe the minute structure of the liver, with especial reference to the arrangement of the blood- and bile-capillaries, and their relations to the cells. The following were the questions on Anatomy, when, as before, candidates were required to answer at least three out of the four questions, between three and six o'clock, viz.:—1. Describe the condition of the spinal column at birth, and the changes it undergoes up to the period of complete development. 2. Describe the dissection necessary to completely expose the internal branches of the posterior divisions of the four upper cervical nerves. 3. Compare and contrast the shoulder and pelvic girdles. 4. The abdomen having been opened, give the dissection necessary to display the solar plexus and its branches of communication within that cavity.

The Pass Examination will be brought to a close this day (Saturday), but the list of successful candidates cannot be published until submitted to, and confirmed by, the Council.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 16:—

Beau, William Henry, Mersea, Colchester
Champ, John Howard, Chelmsford, Essex.
Harrison, Charles, Braintree.
Heathcote, Ralph George, Chatham-street, Manchester.
White, Ernest Alfred, Grenville-street, Russell-square, W.

The following gentlemen also on the same day passed their Primary Professional Examination :—

Griffin, Richard Park, St. Mary's Hospital.
Hardy, Walter Mitchell, Charing-cross Hospital.
Harris, John Wilham, Guy's Hospital.
Steveus, James Jesse William, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Carmichael, James, M.D., F.R.C.P.—Physician to the Royal Hospital for Sick Children, Edinburgh.

Cornelius, W. F., L.D.S.R.C.S. Eng.—Dental House-Surgeon to the Dental Hospital of London, *vice* Mr. Hern.

Hern, Wm., L.D.S.R.C.S. Eng.—Demonstrator of Cohesive and Contour Filling to the Dental Hospital of London.

Mills, Joseph, M.R.C.S. Eng.—Administrator of Anæsthetics to the Dental Hospital of London, *vice* Clover, deceased.

BIRTHS.

Adcock.—On November 15, at Great Yarmouth, the wife of Brigade-Surgeon J. Adcock, A.M.D., of a son.

Cable.—On November 19, at Royal-hill, Greenwich, the wife of G. H. Cable, M.R.C.S., of a son.

Hill.—On November 17, at 55, Wimpole-street, Cavendish-square, W., the wife of Berkeley Hill, F.R.C.S., of a son.

Hume.—On November 5, at Islington, the wife of F. H. Hume, M.R.C.S., L.S.A., of a daughter.

Kidd.—On November 15, at 12, Montpelier-row, Blackheath, the wife of Walter Kidd, M.D., of a son.

Longmore.—On November 14, at Woolston, Hants, the wife of Surgeon-General T. Longmore, C.B., of a son.

Lucey.—On November 15, at Bush Hill Park, Enfield, the wife of Wm. Cubitt Lucey, M.D., C.M., of a son.

May.—On November 18, at Moretonhampstead, South Devon, the wife of Albert E. May, L.R.C.P., of a daughter.

Sandberg.—On November 18, at Liverpool Lodge, Brixton-hill, S.W., the wife of Arthur Gregory Sandberg, M.D., of a son.

Trewman.—On November 16, at Wyntagel, Woolston, Hants, the wife of Surgeon George Turner Trewman, M.D., A.M.D., of a son.

MARRIAGES.

Daly—Von Donop.—On November 16, at Bath, Edward Owen Daly, M.A., M.B., eldest son of Dr. Owen Daly, F.R.C.P., of Hull, J.P. for East Riding, Yorks, to Alice Brenton, youngest daughter of Vice-Admiral E. P. Brenton von Donop, Bath.

Mackinnon—Raddock.—On October 2, at Christ Church, Mussoorie, N.W.P., India, Vincent A. Mackinnon, Esq., of Lyndale, Mussoorie, to Lilian Mary, eldest daughter of Surgeon-Major C. E. Raddock, I.M.D.

Scott—Montgomery.—On November 7, at Deal, John Scott, M.D., of Sandwich, Kent, and New Athenæum Club, Suffolk-street, London, to Elizabeth Montgomery, of Irvinestown, County Fermanagh, Ireland.

Sison—Sison.—On November 15, at Bloomsbury, Edward Richard, second son of E. N. Sison, M.R.C.S., to Caroline Hood Jones, adopted daughter of F. S. Sison, Esq., late of Adelaide, S.A.

DEATHS.

Allcock, Annerly, M.R.C.S., at Smethwick, near Birmingham, on November 14, aged 69.

Bainbrigge, Joseph Harley, youngest son of W. H. Bainbrigge, F.R.C.S., at Droitwich, on November 13, in his 28th year

Crisp, Edwards, M.D., of 16, Beaufort-street, Chelsea, on November 15, aged 76.

Ewen, Arthur Benjamin, M.R.C.S., L.M., L.S.A., of Exmouth, Devon, at 2, Park-place, Torquay, on November 18, aged 45.

Gulliver, George, F.R.C.S., F.R.S., formerly Surgeon Royal Horse Guards Blue, and Hunterian Professor at the Royal College of Surgeons, at Canterbury, on November 17, aged 78.

Paul, James, eldest son of James Paul, M.D., of Barnes, Surrey, and of The Hermitage, Isle of Wight, at Kelso, on November 20, aged 30.

Pirrie, William, M.D., LL.D., Emeritus Professor of Surgery in the University of Aberdeen, and Surgeon in Scotland to H.R.H. the Prince of Wales, at 253, Union-street, Aberdeen, on November 21.

Sabell, Alice Charlotte, second daughter of Richard Sabell, M.D., of Constantinople, at Billère, Pau, on November 16.

Williams, James Thomas, eldest son of C. J. B. Williams, M.D., F.R.S., of Cannes, on November 15, aged 45.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

City of London Hospital for Diseases of the Chest, Victoria-park, E.—Resident Medical Officer. Salary £100 per annum, with board, etc. Candidates must be doubly qualified. Applications, with testimonials, to be sent to the Secretary, 24, Finsbury-circus, not later than Nov. 30

Dewsbury Infirmary.—House-Surgeon. Salary £80 per annum, with board, lodging, and washing. Candidates must be qualified both in medicine and surgery. Applications, with copies of testimonials, to be sent to Charles J. Abbs, Secretary, not later than November 29.

Hospital for Women, Soho-square, W.—Assistant-Physician. (*For particulars see Advertisement.*)

London Fever Hospital, Liverpool-road, Islington, N.—Assistant Resident Medical Officer. Salary £120 per annum, with residence, etc., but without board. Testimonials to be sent to E. Burn Callander, Secretary, on or before November 27.

Stourbridge Dispensary.—House-Surgeon and Secretary. (*For particulars see Advertisement.*)

Westminster Hospital, Broad Sanctuary, S.W.—Junior House-Physician. Candidates must be gentlemen who have completed their medical education at the Westminster Hospital. They must be legally qualified to practise medicine, and must produce certificates of having served the office of clinical clerk in some recognised hospital for a period of not less than six months. The appointment will be for six months, and board and residence in the Hospital will be provided. Applications to be sent in on or before November 25.

Wolverhampton and Staffordshire General Hospital, Wolverhampton.—House-Physician. Salary £100 a year, with board, washing, and lodging. Candidates must be graduates of a British university, or be possessed of such medical qualifications as are satisfactory to the Medical Committee and the Weekly Board. Canvassing disqualifies. Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received not later than December 4. The election takes place on December 12.

Wolverhampton and Staffordshire General Hospital, Wolverhampton.—House-Surgeon. Salary £100 a year, with board, washing, and lodging. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and be possessed of a medical qualification. Canvassing disqualifies. Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received not later than December 4. The election takes place on December 12. Any further information may be obtained on application to Mr. Newnham, Hon. Secretary to the Medical Committee, King-street, Wolverhampton.

York County Hospital.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh, but no candidate shall be eligible who practises or is connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be forwarded to Robert Holtby, Secretary, on or before December 8. The election will take place on December 12.

The Viceregal Court, Ireland.—His Excellency Earl Spencer, K.G., Lord-Lieutenant of Ireland, has been pleased to make the following appointments to his household:—Physicians-in-Ordinary—George W. Hatchell, M.D., F.R.C.S.I.; Thomas Nedley, M.D., F.R.C.S.I. Surgeons-in-Ordinary—P. C. Smyly, M.D. Univ. Dub., F.R.C.S.I.; E. D. Mapother, M.D., F.R.C.S.I. Dentist—D. Corbett, M.R.C.S.E.

The Holmgren Test for Colour-Blindness.—In the report of the Surgeon-General of the Marine Hospital Service for 1881-82, it is stated that in only two cases were appeals made by pilots adjudged by the skein-test as colour-blind, and in both the efficacy of the test was fully established. One of these pilots, examined with the skeins by the Board, was pronounced green-blind and red-blind. He made a demand to be examined by signal-lights, which was accorded, and his replies were found to be so inexact that a licence was refused. In the other case the applicant came a long way for re-examination. The skein-test showed green-blindness; and an unanswerable proof of his infirmity was given when a scarlet book was held against a white wall until the complementary colour appeared. The other spectators were requested to write on a slip of paper the name of the complementary colour as it appeared to them, which they did. The applicant on being asked to name the colour was entirely unable to do so, having that it all looked the colour of the wall. The others had written down "Pale green" and "Light green." This experiment is strongly corroborative of the scientific propriety of the term "colour-*blindness*," as applied to absence of colour-sense. Pilots have now become satisfied with the fairness and efficiency of the worsted test.—*Phil. Med. News*, October 21.

Injection of Sublimate in Syphilis.—This treatment has been used by Prof. Lewin in upwards of 50,000 patients at the Berlin Charité. While after Zittmann's treatment there were 90 per cent. of relapses, and after the inunction cure 80 per cent., after sublimate injection there have been but 30 to 35 per cent., these being moreover very benign. The advantage of the method is in the safety with which it can be applied. Abscesses are never produced, and the pain is trifling. The gluteal region is the part chosen for the injection.—*Phil. Med. Times*, September 23.

UNION AND PAROCHIAL MEDICAL SERVICE.

** The Area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Hemel Hempstead Union.—Dr. J. M. Walker has resigned the Eastern District and the Workhouse: area 29,159; population 3363; salary £22 per annum. Salary for the Workhouse £10 per annum.

Wrington and Cheddon Union.—Mr. H. L. B. Hardy has resigned the office of Assistant Medical Officer at the Infirmary: salary £120 per annum, with board and lodging.

APPOINTMENTS.

Ashby-de-la-Zouch Union.—Edmund J. Thompson, M.R.C.S. Eng., L.S.A., to the Measham District.

Swaffham Union.—William Milligan, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Norwood District.

Topsham Union.—John Davey Eames, L.R.C.P. Lond., L.R.C.S. Eng., to the Workhouse.

Tiverton Union.—Charles McLean, M.B. and M.C. Aberd., to the Tiverton District.

Torpoint Union.—James H. Lloyd, M.R.C.S. Eng., L.R.C.P. Edin., to the Cullompton District.

EXPLOSIVE COMBINATIONS.—Attention has been repeatedly called to those extemporaneous compounds which form explosive mixtures. It may be useful to our readers to point out some of those most frequently prescribed. Amongst these are chlorate of potash, permanganate of potash, and glycerine. A pomade composed of chloride of lime, sulphur, and other substances will detonate when rubbed up in a mortar. When the hypophosphite of lime or soda is triturated alone, if pure, it may explode. Pills composed of oxide of silver are apt to decompose with a tremendous explosion. When tincture of iodine is mixed with ammonia, the iodide of nitrogen—a violently explosive substance—is formed. If this be triturated in the presence of water, an explosion is almost certain to occur. A mixture of chlorate of potash and tannin is apt to explode. A dentifrice containing chlorate of potash and catechu has been known to explode in the mouth when rubbed with a dry brush.—*Phil. Med. News*, October 14.

OPPOSITION TO THE USE OF TOBACCO BY BOYS.—The *Philadelphia Med. Reporter* (October 14) states that an energetic opposition to this practice is now being made in some of the most enlightened educational establishments in the United States, among which are the United States Naval Academy at Annapolis and the United States Military Academy at West Point. The naval surgeons, and especially Dr. Gihon, U.S.N., have been the principal movers in the opposition, alleging that tobacco (1) leads to impaired nutrition of the nerve-centres; (2) is a fertile cause of neuralgia, vertigo, and indigestion; (3) irritates the mouth and throat, and destroys the purity of the voice; (4) produces defects of vision; (5) causes a tremulous, hard, and intermittent pulse; (6) developes conspicuously irritability of the heart; and (7) retards the cell-change on which the development of adolescence depends. Moreover, it is alleged that the records of schools and colleges indicate very positively that tobacco deteriorates the mental faculties. Non-smokers take the highest rank in every grade; and whether we look at the exceptionally brilliant students, or compare the average of those who use and those who refrain from tobacco, the result shows the same.

ATHLETICS AT COLLEGE.—"While we heartily advocate athletic sports among college men, we are glad to see that the Harvard College authorities are about to undertake the regulation of this matter of physical exercise, in order to give it its due development, but yet not to allow it to encroach on the studies of the College course—that is to say, the proper business of the young men. They propose to limit the students to athletic sports as amateurs, and not as 'professionals,' a position they have been rapidly drifting into of late. With the assistance of the faculties of other colleges, they propose, therefore, to prohibit their base-ball clubs from playing with professional clubs. They will retain the present excellent supervision of the gymnasium, which Dr. Sergent exercises, and will add to it some one to see that the students take proper care of themselves in their sports, and that they do not go to excess. This latter person will take the place of the professional College 'trainer,' whom they have dismissed."—*Phil. Med. News*, October 21.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 18, 1882.

BIRTHS.

Births of Boys, 1232; Girls, 1241; Total, 2473.
Corrected weekly average in the 10 years 1872-81, 2703·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	812	759	1571
Weekly average of the ten years 1872-81, corrected to increased population ...	858·4	857·0	1715·4
Deaths of people aged 80 and upwards			52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	6	6	3	1	...	4	2	2
North	905947	2	18	24	7	5	...	11	...	3
Central	292938	...	15	5	2	2	1	...	...	...
East	692738	...	16	15	3	2	...	6	...	5
South	1265927	2	23	18	6	10	1	9	...	6
Total	3816483	4	78	68	21	20	2	30	2	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ... ... 29·643 in.
Mean temperature ... ... 36·8
Highest point of thermometer ... ... 45·4°
Lowest point of thermometer ... ... 24·4°
Mean dew-point temperature ... ... 33·2°
General direction of wind ... ... Variable.
Whole amount of rain in the week ... ... 0·68 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 18, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the Week ending Nov. 18.	Deaths Registered during the week ending Nov. 18.	Mortality from Epidemic, Endemic, and Zymotic Diseases, from all causes	Temperature of Air Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2503	1571	21·1	45·1	24·4	36·8	2·67	0·68	1·73
Brighton	106595	64	41	19·5	47·8	28·8	38·4	3·55	1·21	3·07
Portsmouth ...	129816	91	5	20·1	...	...	...	...	...	...
Norwich	88821	58	35	20·6	...	...	...	...	...	...
Plymouth	74449	52	26	18·2	51·0	29·0	39·9	4·39	0·71	1·80
Bristol	210134	118	67	16·6	44·8	26·6	35·9	2·17	0·30	0·76
Wolverhampton ...	76758	50	30	20·4	45·4	24·3	34·5	1·39	0·64	1·63
Birmingham ...	408532	275	186	23·8	...	...	...	...	...	...
Leicester	129275	86	43	17·8	48·8	23·0	35·9	2·17	0·40	1·02
Nottingham ...	193573	103	96	25·9	45·2	23·2	35·8	2·12	0·25	0·63
Derby	83587	52	30	18·7	...	...	...	...	...	...
Birkenhead ...	85582	63	23	13·9	...	...	...	...	...	...
Liverpool	580377	425	301	28·5	48·5	29·4	37·4	3·00	0·95	2·42
Bolton	104767	75	43	22·5	44·5	26·1	36·2	2·33	0·77	1·96
Manchester ...	347231	246	195	28·9	...	...	...	...	...	...
Salford	184304	136	77	21·8	...	...	...	...	...	...
Oldham	115572	65	53	23·9	...	...	...	...	...	...
Blackburn	104460	72	50	24·5	...	...	...	...	...	...
Preston	97656	78	58	28·9	...	...	...	...	...	...
Huddersfield ...	83418	45	40	25·0	...	...	...	...	...	...
Halifax	74713	51	41	28·6	...	...	...	...	...	...
Bradford	208158	106	82	21·4	43·1	24·0	36·6	2·56	0·56	1·27
Leeds	315998	229	145	23·9	46·0	25·0	37·8	3·23	0·25	0·63
Sheffield	291516	193	132	23·7	45·4	25·0	36·0	2·22	0·62	1·57
Hull	158814	132	77	25·3	5·30	29·0	42·3	5·78	0·87	2·21
Sunderland	119065	91	71	30·7	48·1	30·0	39·4	4·11	0·87	2·46
Newcastle	147626	92	67	23·7	...	...	...	...	...	...
Cardiff	88724	66	38	22·9	...	...	...	...	...	...
For 28 towns ...	8468571	5607	3668	22·6	51·0	23·0	37·4	3·00	0·65	1·65
Edinburgh	232440	129	93	21·1	44·6	29·0	35·1	2·28	0·30	0·78
Glasgow	511048	355	288	29·0	...	...	...	...	...	...
Dublin	318288	170	174	28·1	52·6	22·7	39·2	4·00	0·78	1·98

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·64 in. The highest reading was 29·92 in. on Sunday morning, and the lowest 28·93 in. on Thursday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

H. M., London Hospital.—Mr. H. Barraud, of Gloucester-street, Portman-square, has published a capital photograph of the late Mr. Critchett, whose portrait also appears in the "Leaders of Medicine and Surgery"—so many of whom have gone over to the majority.

Official Feasting, etc.—In a report lately issued by the Local Government Board, reference is made to feasting at the cost of the rates, several instances of it having occurred during the past year. Some bills of fare submitted for examination, in connexion with an appeal by the members of a local authority, showed that at frequent intervals during several weeks a substantial repast for a considerable number of persons had been provided. In another case a charge of £12 for two silver keys presented to members of a local authority on the occasion of the opening of a new public building. In yet another case, an official, "at the urgent solicitude of the inhabitants, who were very enthusiastic on the occasion," had resolved to celebrate his wedding-day by a "suitable demonstration": this took the form of an illumination, in which ten devices in gas were described as having given "universal satisfaction." It is almost needless to remark that these and similar items of local official expenditure do not meet with the sanction of the central authority.

An Old Member.—All members of the College are invited to hear Sir James Paget's "Bradshawe Lecture" at the College of Surgeons.

Extension of the Port of London and the Jurisdiction of the Port Sanitary Committee.—The Lords of the Treasury have given notice that the limits of the Port of London shall commence at high-water mark in the Thames at Teddington Lock, and extend down both sides of the river, to an imaginary straight line drawn from the north-eastern extremity of the Isle of Grain, in Kent, to the pilot mark at the entrance of Havengore Creek, in Essex, and shall include the islands in Havengore Creek, called Potton and Rushley Islands.

Hospital for Dalkeith.—A local hospital, erected at the expense of the Duke of Buccleuch, has been formally opened. It will accommodate between forty and fifty patients.

Where is the Sanitary Inspector?—During an inquest held at Liverpool the other day, on a child that was suffocated in bed, the mother stated in evidence that she, her husband, the deceased, and three other children had slept together, and that, although her husband was in receipt of 38s. a week, with a considerable amount irregularly received for overtime, there was only one bed in the house.

F.R.C.S.—Mr. Edwin Lee died many years ago. His correspondence with Sir James Graham respecting the College fellowships will be found in the *Medical Times*, vol. xi., page 106.

The Gothenburg System, Norway.—A newspaper correspondent, writing on his experiences of a tour in Norway, states—"Though this system has not been fully introduced in Norway, the restrictions are very considerable, and sometimes give trouble to those who are not prepared for them. No spirit is sold anywhere, not even in the licensed houses, between five o'clock on Saturday night and eight o'clock on Monday morning." The writer adds—"If I am asked to say honestly how the system works, I regret that I cannot give a wholly favourable reply. It leads to a great deal of dodging and trickery. Over-strict laws defeat their object. They do not prevent drinking, and in the case of Norway they have not put down drunkenness, while they tempt honest men to risk their credit in devices which can hardly fail to have a demoralising effect."

Liabilities of Dentists: United States.—A gentleman brought an action in New York against a dentist for injuries caused by a piece of tooth which was extracted, but which the dentist allowed to drop down the plaintiff's throat while he was under the influence of nitrous oxide or laughing-gas. The piece fell from the forceps, and it caused the plaintiff considerable suffering for several weeks. The Court awarded the plaintiff $500 damages, and this judgment, on appeal, has been confirmed.

A Model Vestryman and Landlord.—At the Lambeth Police-court a licensed victualler, and also a member of the Lambeth Vestry, was summoned, at the instance of the Vestry, for disobeying a notice given him by the Vestry to supply twelve houses, of which he is the owner, with proper apparatus so as to allow of the residents in such houses having a sufficient supply of water. It was shown that, in consequence of this non-compliance with the requirements of the Vestry by the defendant, the tenants of his houses had for some time been entirely deprived of a water-supply. The case was before the Court a short time ago, when the defendant promised to carry out the necessary works, but had failed to perform his promise. On the present occasion he did not appear in answer to the summons, and the magistrate imposed a fine and penalties amounting in all to £3 16s. The exceptional circumstance of a vestryman-landlord being prosecuted by the vestry of which he is a member is noticeable.

Mr. Jacob.—There are sixteen candidates for the pass fellowship of the College of Surgeons. The names cannot be published until submitted to the Council for confirmation.

Adulterating Milk: A Magistrate's Opinion of its Punishment.—The chairman at the Croydon Petty Sessions last week, in fining a dairyman, of White Horse-road, for selling milk containing 50 per cent. of added water, said he regretted that a law could not be made, rendering it compulsory for a person guilty of such a mean offence to wear on his back a placard notifying the fact that he had been convicted.

The First Spanish Woman-Doctor.—*La Tribuna*, of Madrid, gives a detailed account of the conferring, by the Medical Faculty of that city, of a degree of medicine on Señorita Martina Cassells y Bellaspi. She is the first Spanish woman who has studied medicine and taken a degree. She is spoken of in warm terms as a lady who, in spite of much opposition and national prejudice, has won high honours. Another Spanish lady is following her footsteps.

An Important Sanitary Decision.—Touching the test case for arbitration recently referred to by us, in which the plaintiff, who is the owner of cottage property at Brymbo, brought an action to recover £81 from the Wrexham Rural Sanitary Authority for damage alleged to have been done to two cottages by the cutting of main sewers in the front and rear of these dwellings, the arbitrators failed to agree, and called in the umpire, who has now given his decision, awarding the plaintiff £80 and costs. This is a somewhat serious matter for the ratepayers of the Wrexham district, as this was a test case, and several other similar cases will now, it is expected, be brought against the Sanitary Authority.

Children in French Factories.—The *Journal Officiel* publishes a decree containing six articles relating to the employment of children in French factories. It is absolutely forbidden, henceforth, to employ children in the manufacture of certain chemicals, or to let boys under sixteen or girls under eighteen years of age do hand-work at mills. It is also made illegal to allow boys or girls under a certain age to draw any trucks on the public streets or highways, or when inside the manufactories to draw any vehicle which, together with the load, shall weigh more than 100 kilogrammes. Neither may children be employed in manufacturing bone, horn, or mother-o'-pearl articles, the dust from which is injurious to the lungs; or in businesses involving risk to life and limb, as, for instance, in slating roofs. Proper ventilation of the factories is, moreover, made compulsory.

Bangor.—The Local Board has decided to petition the Local Government Board in favour of the notification of infectious diseases.

Centenarian Paupers.—Ann Franklen, an inmate of the Uxbridge Union Workhouse, attained the age of 100 years on the 1st instant; and another female inmate, named Ann Wood, is believed to have arrived at the age of 102 years in March last. Franklen, whose eldest daughter is eighty years old, is imbecile, but Wood is in possession of all her faculties. The latter is an inveterate smoker, and the guardians offer no opposition to her indulgence in the habit.

Railway Accidents in Europe.—From the comparative statistics of these accidents in the different European countries, it seems that railway travelling is safer in Norway and Sweden than in any of the other countries of Europe, a year often passing without a single fatal accident occurring to a passenger in either. In England and France there is an average of one killed out of every four and a half millions of passengers, with a slight advantage in favour of France. Spain and the United States present the worst records. The proportion of companies' servants to passengers killed in England is very much lower than elsewhere—a fact which suggests to the statistician of the *Echo Scientifique* the reflection either that the *employés* desert their post at the approach of danger, or else that the lines are very much under-manned.

A Trade Stratagem.—A contemporary states that the Local Authorities of Leeds have been a good deal exercised for some time past by the importation of diseased meat into the town. Notwithstanding the vigilance of their officers, putrid meat had found its way to the shops of dealers known to sell such food. The mystery has at length been solved. Carcases of diseased animals have been brought into the town carefully packed in a hearse, and, thus stowed away, have arrived at their destination without attracting observation. Thus the combined enterprise of two traders has been successfully eluding the diligence of the sanitary officers.

A New Dipsomaniac Establishment.—Plas Newydd, the ancestral mansion of the Marquis of Anglesey, which has been unoccupied for some time, has been leased for a term of years for adaptation into an establishment for dipsomaniacs.

Touching an Anonymous Donation.—About two years ago, Mr. Bass, M.P., gave £5000 towards the purchase of a public park for Derby, but on the scheme falling through, ordered the money to be distributed among the local charitable institutions, and £1000 of this amount was announced as given to the Infirmary. Colonel J. Evans states that this money was utilised to prop up the tottering fabric of a local building society, and was buried in its ruins. A recent anonymous donation of £1000 to the Infirmary is, he thinks, a restitution of the misappropriated money—a disclosure which has caused quite a sensation.

Liverpool Hospital Sunday.—The gross receipts have been £10,043—about £15 over those of 1881.

Meat and Tuberculosis.—The *Live Stock Journal* says the remarks of the Secretary of the Royal Agricultural Society on "English Meat and Tuberculosis" are not exactly pleasant reading to anyone, for even those of us who are producers of meat are also consumers of it—that is, unless we are vegetarians. When at Hanover, Mr. Jenkins visited the new cattle market and slaughter-houses, where he found that every carcase was submitted to a microscopical examination by experts before being allowed to be sold. In one month, out of 637 head of cattle thus inspected, sixteen, or 2½ per cent., proved to be more or less affected with tuberculosis or consumption, and were instantly condemned, the disease being held to be communicable to human beings through meat taken as food. In London no such provision is exercised, and if the proportion of affected animals is the same as at Hanover, it follows that 7500 head of cattle which have suffered from the disorder are eaten in the metropolis every year, to say nothing of the dead meat which comes to London from the country and from abroad. As Mr. Jenkins suggests, these facts might, with profit to the community at large, be debated by the Social Science and the Sanitary Congresses.

Women Doctors: Russia.—On the announcement in Russia that the course of medical instruction for women would be closed, a great meeting was held to protest against the measure, and a Moscow merchant offered to spend two hundred thousand roubles if the St. Petersburg authorities would undertake the management of the lectures.

The Duration of Life in the Parish of St. George's, Hanover-square.—Dr. Corfield calculates that while the mean duration of life in all London is a little under thirty-six years, in the aristocratic parish of St. George's it is fifty years. The average, however, is made up of rather wider extremes, for while it is only forty-six and one-third in Belgravia, it is fifty-seven in the Hanover-square sub-district, and even sixty-six and one-fifth in Mayfair. The latter fashionable quarter seems, indeed, to be of all places, in London proper, the spot where remarkable instances of longevity might naturally be looked for. Dr. Corfield, in his report, directs attention to the fact that in the "inner ring" of the suburbs of London, which takes in a population of nearly a million, the corrected death-rate last year was only sixteen per thousand, which was lower than that of any of the fifty-seven town districts in England, except Reading, Maidstone, Dover, and Cheltenham. In the rest of London, however, comprising not many fewer than four millions of persons, the death-rate was twenty-one and two-tenths.

COMMUNICATIONS have been received from—

Dr. Lerat, Nantes; Dr. F. J. Van Leent, Amsterdam; The Editor of the "Essex Standard," Colchester; Dr. J. W. Langmore, London; The Registrar of the Apothecaries' Hall, London Mr. G. Meadows, Hastings; Mr. J. Gladding, London; Mr. F. W. Rudler, London; Mr. C. Macnamara, London; The Sanitary Commissioner for the Punjaub, Lahore; Dr. R. Shingleton, Clifton; Mr. Bennett May, Birmingham; Dr. Charles West, Nice; Dr. D. W. Finlay, London; Dr. James Russell, Birmingham; Professor Paget, F.R.S., Cambridge; Dr. Robert Saundby, Birmingham; Dr. F. T. Roberts, London; Mr. T. F. Chavasse, Birmingham; Dr. W. S. Church, London; Dr. C. H. Ralfe, London; Dr. O. Sturges, London; The Honorary Secretary of the Medical Society of London; Mr. J. Howard, London; The Honorary Secretary of the Royal Medical and Chirurgical Society; Mr. G. Masson, Paris; Mr. S. G. Denton, London; Local Government Board, London; Dr. R. G. Dauvt, Brazil; The Registrar-General for Scotland, Edinburgh; Mr. William Crookes, F.R.S., London; Dr. G. V. Poore, London; Dr. J. W. Moore, Dublin; Dr. Sidney Coupland, London; The Secretary of the University of London; Mr. J. B. Holloway, London; Messrs. Arnold and Sons, London.

BOOKS, ETC., RECEIVED—

Water and its Teaching, by C. Lloyd Morgan, F.G.S.—Health Lectures for the People—On Causes of Consumption, by Edward Playter, M.D.—The Manufacture of Iron and Steel Direct from the Ore, Bull's Process, by Mr. Vaughan W. Jones—Des Tumeurs de l'Ovaire et de l'Utérus, par F. Spencer Wells, etc.—Atlas of Portraits of Diseases of the Skin, Case xvi., New Sydenham Society—Transactions of the Sanitary Institute of Great Britain, vol iii., 1881-82—On the Relation of the Chest Movements to Prognosis in Lung Disease, by Arthur Ransome, M.D., M.A.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Medical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—National Board of Health Bulletin, Washington—Medical News—Physician and Surgeon—Cincinnati Medical—Northern Whig, November 18—Revue de Chirurgie—Revue de Médecine—Alienist and Neurologist—Australian Medical Gazette—New York Medical Journal—Church of England Pulpit—Detroit Lancet—Therapeutic Gazette—Philadelphia Medical Times—Canada Lancet—Journal of Cutaneous and Venereal Diseases—Supplement to the Chamber of Commerce Journal—Revue d'Hygiène—Western Daily Mercury.

APPOINTMENTS FOR THE WEEK.

November 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Drysdale, "On the Treatment of Syphilis." Dr. Routh, "On the Difficulty of Diagnosing True Syphilitic Disease in the Female, and the Nature of its Contagion."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. F. Warner, "On Spontaneous Postures of the Hand considered as Indications of the Condition of the Brain." Dr. C. H. Ralfe, "On Seventeen Cases of Epilepsy treated with Sodium Nitrite." The President will show a series (belonging to Dr. H. von Ziemssen) of Full-sized Photographs of the Face, showing the Action of particular Muscles under Electrical Excitation, throwing light on the various distortions of the features. Preparations and Drawings illustrative of Epilepsy will also be shown from the Museums of the College of Surgeons, St. Bartholomew's, St. George's, University College, and other museums.

Anthropological Institute (4, St. Martin's-place, W.C.), 8 p.m. Dr. G. W. Parker, "On the Language and People of Madagascar."

29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 p.m. Lectures and Demonstrations: Dr. C. Theodore Williams.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

Harveian Society, 8½ p.m. Mr. Henry Power, "On Ophthalmic Medicine and Surgery in relation to General Practice." (Harveian Lecture—II.

December 1. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

Non-restraint Treatment of Insanity in United States.—Although somewhat late in the day, it is pleasant to notice from a communication by so distinguished a physician as Dr. Walter Channing (*Boston Med. Jour.*, September 21) that the non-restraint system, as we understand it here, is likely to overcome the incredulity it has usually called forth in the United States. He states that, at the King's County Asylum, Dr. Shaw has been trying the "non-restraint" system, and is quite satisfied with it. The Asylum now contains 800 patients, so that the field is wide enough. The chief difficulty at first was with the attendants, many of whom have been superseded by a better and more responsible set, who find it comparatively easy to manage the patients without restraint. Seclusion is seldom resorted to, and only on the express order of the physicians. The accidents to patients or attendants are not many, and violence, if even only suspected, on the part of the attendant leads to his discharge. Sedatives are used only in small quantities. "The patients are chiefly Irish; a majority are chronic cases on admission, and many violent and noisy, making them difficult to control. In addition to this they are in bad physical condition and illiterate. Taking such a class as this to be treated in a county pauper institution, we see at once that the conditions are not the most favourable for a trial of 'non-restraint.' Dr. Shaw says very plainly that he should use restraint if he had a case where he thought it necessary, and he also feels entirely at liberty to use sedatives on the same principle."

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF WOMEN.

Delivered in St. Bartholomew's Hospital.

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery at the Hospital.

LECTURE IV.

ON REMOTE OR INDIRECT SYMPTOMS.

WHAT is a remote or indirect symptom? Only a day or two ago a lady told me she suffered periodically from periodical displacement of the womb. On my hinting incredulity, she then said she knew quite well by an uncomfortable feeling in the head when the womb departed from its right place. No doubt she had been directly or indirectly taught this injurious nonsense. Had it been true, then we would have in it a good example of an indirect and remote symptom of uterine displacement. In pregnancy, of which I speak now only for the sake of illustration, you have fine examples of remote or indirect symptoms, explained as reflex phenomena or as sympathies. For example, you have the sickness and vomiting of pregnancy, the salivation, the amaurosis—all undoubted remote symptoms and consequences of pregnancy.

It is familiarity with the phenomena of pregnancy that convinces me that there are remote or indirect symptoms of diseases of the uterus and its appendages beyond those I shall presently mention as sure and generally admitted. But the subject has been very imperfectly studied, and I am sure you will, in any case, come much nearer the truth by doubting or repudiating altogether so-called symptoms that are remote, than by adopting the present prevalent belief in their protean character. Looking into popular gynæcological manuals, you will find this protean group around split cervix, displacement, ulceration, and other uterine diseases and disorders; and I give you an example. A great author and practitioner describes retroflexion of the uterus as producing, or as having for symptoms, dysmenorrhœa, menorrhagia, leucorrhœa, abortion, sterility, obstruction of rectum, ribbon stools, pain in defæcation, intestinal paralysis, disturbance of digestion, flatulence, pyrosis, nausea, disorders of liver, disordered secretions, hysteria, intellectual disturbance, and many, many more. All of these may accompany retroflexion, no doubt, but they are in no sense symptoms. You will utterly reject all this kind of pathology as worse than useless, and examine the matter more narrowly. I have no hesitation in telling you that, compared with this, you will then find retroflexion to be a very innocent affair. The rules I gave you for testing the reality or truth of direct symptoms apply to these indirect symptoms, and should be rigidly applied in order to your pursuing a right course for your patients.

The mammary sympathies, pain, swelling, tenderness, development of areola, are occasional unchallenged remote symptoms of uterine disorder; so also is renal pain and tenderness; so also are the flushings and curious neuralgiæ of the menopause.

I doubt sickness and vomiting as symptomatic of uterine disease, apart, of course, from pregnancy; and a few words are required to explain this doubt. Sickness and vomiting are often seen with perimetritis and with spasmodic dysmenorrhœa. But in the perimetritis it is not a proper uterine symptom, but a symptom of local peritonitis, and is observed in whatever region local peritonitis may be, whether near the uterus or not. Again, in dysmenorrhœa it is observed characteristically only as the result of very severe pain, not as a proper uterine symptom, but accompanying other evidence of the violence of the pain; and as such it is observed in whatever part of the body such pain may be. Palpitation does not point to disease of the womb, but to anæmia, whether caused by metrorrhagia or not.

A much-talked-of symptom is left infra-mammary pain, and I refer to it to repudiate it altogether. We may go on with our regular work in "Martha" for months without hearing of it, and when it does occur it is inexplicable or an evidence of neuralgic weakness or hysteria. The place held by left infra-mammary pain should be given to pain above the left groin—the left ovarian pain of modern neurologists,—but this is not a remote pain, and you will hold in mind that it has no necessary connexion whatever with the left ovary; it is only in that neighbourhood.

Lastly, I must mention remote diseases as symptoms of uterine disease or of its extension. Of such are many renal affections, many cases of phlegmasia dolens, some cases of paralysis and atrophy of a lower limb, and rare cases of descending neuritis in the lower limbs. Perhaps, indeed, all remote symptoms are really secondary diseases.

To comprehend this subject do not go to slight diseases or contested pathology, but study the course and history of great diseases—as procidentia, fibroids, cancer, ovarian dropsy. From the beginning to the end of them you will find no such exaggerated symptomatic castle-building as surrounds the minor diseases and disorders, as the ulcerations, displacements, and split cervix.

Let me dismiss you with a subject for reflection which remains for your study and research. Are there no uterine symptoms or disorders or diseases which are secondary to other diseases, indicative of them or caused by them? Should the uterus and its appendages be looked on as always governing and disturbing, and not as itself occasionally governed or disturbed?

THE DIAGNOSIS OF DISEASES OF THE SKIN.

By DR. McCALL ANDERSON,

Professor of Clinical Medicine in the University of Glasgow; Physician to the Western Infirmary, and to the Special Wards for Diseases of the Skin.

LECTURE XV.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

2. Syphilitic Affections of the Skin.

II. TERTIARY ERUPTIONS (late manifestations of Syphilis).

Two of these have already been described, viz., Rupia Syphilitica along with the Pustular Syphilides, and one variety of the so-called Psoriasis Syphilitica along with the Squamous Syphilides. There only remains, therefore, for consideration, the *Tubercular Syphilides*, from which group we exclude Condylomata, and the "Syphilide papuleuse plate," which are among the earliest of the Syphilitic Eruptions, and have already been described. With these exceptions, the Tubercular Syphilide is invariably a late manifestation, and tending to make its appearance from two up to twenty or even thirty years after infection. The tubercles vary in size from a split pea to a hazel-nut or even more, are flat or conical in shape, firm to the touch, often smooth and glistening in appearance, at first brownish-red in colour, later coppery.

There are non-ulcerating and ulcerating varieties. In the former the tubercles generally appear in groups, often forming roundish patches: these may be scattered over the body, but are oftenest met with on the face (especially the brow, alæ nasi, and lips), neck, and shoulders. There is usually a tendency to gradual subsidence of the tubercles in the centre of the patches, with the development of new ones at their edges, so that circles or segments of circles of eruption are left, in which, perhaps, the tubercular elements are difficult of recognition owing to the coalescence of neighbouring tubercles, and occasionally segments of circles of eruption near one another unite, forming wavy or serpentine lines, which are very peculiar and characteristic. On the disappearance of the patches there may be some cicatricial appearance left, although there has been no previous ulceration, but this feature is not nearly so marked as it is in the case of strumous affections.

The ulcerating forms are more serious, and two varieties of them are described, according as the ulcers tend to penetrate deeply or to spread superficially.

(*a.*) *The Perforating Tubercular Syphilide* may attack any part, but has a preference for the mouth and face, particularly the nose. An isolated tubercle of large size is the

usual initial lesion; this ulcerates, and the ulcer becomes covered with a thick, rough, adherent, greenish or blackish crust. On its removal the ulcer is found to be deep, more or less rounded, with perpendicular, indurated, coppery edges, and ash-grey base. During the advancing stages the crust is soon replaced, and beneath it the ulceration continues to spread; new tubercles, too, are apt to form in the neighbourhood, which likewise ulcerate, and unite with the ulcer first formed, and in this way great destruction of tissue may ensue. Thus the lip or palate may be perforated, the ala nasi destroyed, and even the bones of the nose, etc., involved, and when healing at last takes place, deep indelible cicatrices result. Often there is a succession of these perforating tubercles on different parts of the body, which may be seen in various stages of development, and produce much disfigurement.

(*b.*) *The Serpiginous Tubercular Syphilide* may attack any part, but is oftenest encountered on the back. It often commences by the development of groups of tubercles as in the non-ulcerating variety, but, owing to the intensity of the virus or to deterioration of the general health, these are soon attacked by ulceration. The ulcers present similar characters to those of the last variety, with this exception, that instead of penetrating deeply they spread superficially and circumferentially, forming circles or segments of circles of ulceration more or less covered with crusts. It occasionally happens that, by the union of neighbouring segments of circles, serpentine lines of ulceration are developed, which are very characteristic (Serpiginous Syphilitic ulceration), and, if there should be a succession of these, great disfigurement and extensive scarring of the skin are the result.

When tubercles constitute a prominent feature in Acne (Acne Indurata) they may be mistaken for the tubercles of Syphilis; but in the former the eruption generally makes its appearance between puberty and five-and-twenty; it has a special tendency to appear upon the face and back, and, with the exception of the top of the chest in front, is rarely met with in other parts. The tubercles, too, are generally marked with a black spot on their summit (the gaping orifice of the sebaceous follicle, blocked up with hardened, blackened sebaceous matter); and although they suppurate in an indolent manner, ulceration is not observed. They are often of a dusky-red tint, but never distinctly coppery, nor are they arranged in circles or segments of circles: and, finally, there is an absence of any history of Syphilis, or of concomitant syphilitic manifestations.

The following points serve to distinguish Lupus, which is erroneously described as a tubercular eruption, from a Tubercular Syphilide:—

Lupus.	*Tubercular Syphilide.*
1. Almost always involves the nose or cheeks, although the limbs are also frequently involved.	1. Any part of the body may be involved, though oftenest the face.
2. Consistence of eruption, which is not tubercular, is soft and easily penetrated by solid caustic.	2. Consistence of tubercles is firm.
3. Colour violet or vinous.	3. Liver-coloured or coppery.
4. Ulcers irregular, perhaps undermined, and tendency to throw out profuse granulations.	4. Ulcers have perpendicular edges and ash-grey bases.
5. The crusts brownish or yellowish.	5. The crusts greenish or blackish, thick, rough, and adherent.
6. Commences usually between the ages of fifteen and twenty-five.	6. Appears later in life, as a rule, because Syphilis is acquired in adult life, and eruption often appears many years afterwards.
7. Often of long duration, even many years.	7. A chronic affection, but not to compare in chronicity with the other.
8. Often other signs of Scrofula, *e.g.*, glandular enlargements, strumous ophthalmia, disease of the bones, etc.	8. No signs of Scrofula unless as a coincidence, but history of infection, and other signs of Syphilis detected.
9. Cured by anti-strumous remedies and caustics.	9. Cured by mercury and iodine.

(For the diagnosis of the Tubercular Syphilide from true Tubercular Leprosy see the latter disease.)

An account of the late cutaneous manifestations of Syphilis would be incomplete were we to omit notice of the *Gummatous Syphilide* (Tumores Gummati), although it is only exceptionally met with, and is a late tertiary symptom. It consists in the development of little gummy tumours in the subcutaneous cellular tissue, exactly of the same nature as those occasionally met with in the tongue, brain, lungs, heart, and liver of syphilitic subjects. They are most frequently met with in the subcutaneous tissue of the extremities, varying in size from a pea to a marble, and are rarely numerous. At first they roll freely underneath the finger, and the skin covering them has a natural appearance, but sooner or later, if they do not disperse, slow inflammatory action is set up, they become adherent to the skin, which becomes of a dusky-red tint, and fluctuation is detected. When the abscess is opened or gives way there is a discharge of unhealthy pus, and deep ulcers, which are broadest at their base, in the cellular tissue, and with indurated coppery edges, are left, which, when they heal, leave indelible, often depressed, cicatrices.

B. *Hereditary Syphilis.*

Hereditary and Infantile Syphilis, though often used as such, are not synonymous terms, for although the latter is generally the consequence of an hereditary taint, it may be acquired, as, for example, from infection from the secretions emanating from syphilitic sores in the vagina of the mother during delivery, or from syphilitic sores on the nipple of the nurse. The more recent the taint in the parent, the more likely is the offspring to suffer, and all the more certainly if both father and mother are affected; but, if only one be tainted, the child is more likely to be attacked if it is the mother who is diseased. If a parent exhibits symptoms of Syphilis at the time of conception of the child, it is not necessarily tainted, and, on the other hand, it may suffer even though the parents present no trace of Syphilis at that period. If the virus in the parent is very active, abortion or miscarriage generally occurs; and so true is this, that if a woman has a series of miscarriages without obvious cause, Syphilis may be suspected to be at the root of it. If delivery takes place at the full term, the infant may be born with distinct evidences of syphilitic contamination, and with the cachexia and wasting indicative of virulent blood-poisoning: it is like a little old man, or, as Doublet has remarked, it looks the "miniature of decrepitude."

But generally at the time of birth it looks perfectly healthy, and only shows evidences of Syphilis when it is from one to two months old. It then begins to be peevish and fretful, loses flesh and strength, and its complexion is apt to assume a dirty earthy appearance. The first distinct evidence of disease is often an attack of coryza, the secretions from the nostrils being thin and watery at the outset, but soon viscid and tenacious, and the nostrils become so much obstructed that often it has great difficulty in taking the breast. A peculiar snuffling noise, too, is usually heard on inspiration, especially when the child cries: hence the term "the snuffles," sometimes applied to this affection. About the same time the larynx may be the seat of Syphilitic Erythema, leading to hoarseness, or there may even be aphonia, especially if the vocal cords are the seat of mucous patches. The latter, too, generally appear, as in adults, on the lips, gums, and mucous membrane of the lips generally, and may be mistaken for patches of aphthæ, which, however, are usually situated on an inflamed base with a red areola, and occur generally along with well-marked digestive derangement. If there is still doubt as to their nature, a microscopic examination usually demonstrates, in the case of aphthæ, the presence of the Oidium albicans.

Along with the mucous patches in the mouth, Condylomata often make their appearance on other parts of the body, in the same situations as, and presenting similar characters to, those observed in adults. Or they may be replaced or accompanied by one or more of the other syphilitic eruptions already described as occurring in adults; but in the majority of cases the eruption is of an erythematous character. This eruption may occur in roundish or oval patches of varying size, which may coalesce, and thus involve a large extent of surface. The affected parts have a dusky-red, yellowish-red, or coppery tint, are not much elevated, have a smooth and glistening appearance in certain lights,

and here and there the skin may be seen peeling off in thin dry flakes. This eruption, like the corresponding one in the adult, is altogether devoid of itching, and, while any part may be attacked, it has a special affinity for the buttocks and thighs, the vicinity of the mouth, and the palms and soles. Occasionally at parts excoriations are observed, or even ulcers, which, however, are generally superficial, and do not usually present the typical features of syphilitic ulceration.

The following characters enable us to distinguish simple from syphilitic Erythema:—

Erythema.	*Erythema Syphiliticum.*
1. Has no special tendency to occur a few weeks after birth.	1. Usually occurs from a month to six weeks after birth.
2. Child pretty healthy, as a rule, and no other symptom present unless digestive derangement.	2. Child generally more or less emaciated and cachectic, especially as disease advances, and usually other signs of Syphilis, as mucous patches in or at the angles of the month, condylomata at anus, snuffles, etc.
3. Colour of the eruption bright-red or pink.	3. Dusky-red, yellowish-red, or coppery.
4. More or less itchy.	4. No itching present.
5. The surface not usually glazed and shining.	5. Surface often glazed and shining.
6. May attack any part, but flexures of elbows and knees, head, and where apposed surfaces of skin in contact, most frequently affected.	6. Buttocks, face, palms and soles, the seats of predilection.
7. Health of parents presents no special feature.	7. History of Syphilis in parents, or of miscarriages.

One other form of eruption remains to be considered, viz., the

Bullous Syphilide (Pemphigus Neonatorum).

This is a rare affection, and it falls to the lot of few to observe it. It differs from the other cutaneous manifestations of Syphilis not only in its characters, but also in the date of its appearance, for it generally manifests itself within a week of birth, or the infant may even be born with the eruption upon it. It may involve any part, but has a special affinity for the limbs, especially the palms and soles. The bullæ are usually of small size, and appear in successive crops; some of them are tense, some flaccid, and are filled with serum or sanious pus: this gradually dries up into crusts, beneath which ulcers may form, which usually, however, are superficial. It may occur as an isolated manifestation, but sometimes other symptoms of Syphilis are present. Some say that it is not a syphilitic lesion, principally because it sets in at an earlier period than the other manifestations of Syphilis are usually observed, and because there is no corresponding disease in the acquired Syphilis of adults. The latter statement, as we have seen, is incorrect, while the former is inconclusive, seeing that different lesions of Syphilis, for reasons unknown to us, appear at different times, while proof of its syphilitic origin is found in its frequent co-existence with other characteristic syphilitic symptoms, in its usually occurring in the children of syphilitic parents, and in the fact that anti-syphilitic is the only treatment that seems to have any control over it. Unfortunately, in the great majority of cases the general health rapidly deteriorates, the child wastes away, and usually sinks within a week or two.

ERGOT IN SKIN DISEASES.—In a paper read before the American Dermatological Association, Dr. Heitzman said that he could quite corroborate the statement of Dr. Le Grand d'Eustace as to the great advantage derivable from the internal use of ergot for acne disseminata and rosacea. He uses Squibb's fluid extract mixed with glycerine and water in half-drachm doses daily. He has found the remedy efficacious and free from any evil effects. Especially has its efficacy proved rapid in acne disseminata with large pustules. It was somewhat less valuable in the vascular and erythematous forms of rosacea. It is therefore an important adjunct when combined with proper local treatment. It has not proved of utility in eczema and psoriasis, but in erythema, pruritus, and urticaria in a certain percentage of cases it speedily removed the disease.—*Phil. Med. Times*, Sept. 23.

ORIGINAL COMMUNICATIONS.

DIALYSED IRON.

By PROSSER JAMES, M.D.,
Lecturer on Materia Medica and Therapeutics at the London Hospital
Physician to the Hospital for Diseases of the Throat, etc.

DIALYSED iron, in a form adapted for medical use, has now been long enough before the profession to allow us to form an estimate of its position among ferruginous preparations. Of these, the per-salts of iron are so astringent that they are frequently employed for this property only; while the proto-salts are so much less astringent that we occasionally hear them spoken of, rather inaccurately, as destitute of this quality. Freshly prepared carbonate is a very valuable preparation when a mild chalybeate is required, but some objections to it lead us, in many cases, to prefer the *ferrum redactum*. This last, however, is not always well borne by the stomach. The elegant scale preparations of the salts with vegetable acids have been popular on account of their solubility and slight astringency, while to most persons they are less disagreeable to take than the other salts. Lately, when all these forms disagree or seem unsuitable, we have had at our disposal a still milder chalybeate in dialysed iron, which is not unpleasant to the taste, and does not irritate the stomach or bowels.

What, then, is this preparation? Chemists are not quite agreed as to the exact condition in which the iron exists in the liquid; but for practical therapeutical uses we may say that its production depends on the results obtained by the late Professor Graham in his researches on the diffusion of liquids. In 1861, Graham stated, in the course of a communication to the Royal Society, that "If recently precipitated ferric hydrate or carbonate of ammonium is added to an aqueous solution of ferric chloride, as long as the precipitates are redissolved, and if the dark-red solution thus obtained, containing from 4 to 5 per cent. of solid matter, is subjected to dialysis, mainly muriatic acid will pass through the septum, upon which, after nineteen days, remains a red liquid, containing, for 98·5 parts of oxide, 1·5 part of muriatic acid." The process has now been carried out on a commercial scale, and so successfully, that a recent analysis of Wyeth's dialysed iron, made by Professor Tichborne, almost exactly agrees with Graham's results. It is important to observe that the liquid obtained by dialysis differs altogether from an ordinary solution of salts of iron, from which it may be distinguished by its not giving rise to the blood-red colour on the addition of an alkaline sulpho-cyanide, nor to the blue precipitate with ferro-cyanide of potassium. Neither does it become cloudy on boiling. Agitated with two parts of ether and one of alcohol, the ether layer is not coloured yellow. We may add that the iron is at once precipitated by sulphuric acid, by alkalies, and by many salts. So sensitive is the liquid that ordinary spring-water will cause a precipitate. But no precipitate is produced by nitric, acetic, or muriatic acids; from which Becquerel concludes that it will not be affected by the chlorides of the alimentary canal. Graham's solution gelatinised in about twenty days, and he regarded it as a solution of colloidal ferric hydrate, which he considered existed in both a soluble and an insoluble form. This hydrate has, however, never been obtained absolutely free from chlorine—the presence of which perhaps maintains in solution an oxychloride of iron. In that case a very little more chlorine would suffice to render the solution permanent. Yet although, theoretically, we may regard the liquid as a solution of a basic oxychloride, we must not forget that it differs essentially from solutions prepared by saturation of the hydrate, all of which have an acid reaction, and an astringent, ferruginous taste, by which they are distinguished from the product of careful dialysis—a process which must be conscientiously carried out in order to obtain a satisfactory article, and the results of which cannot be imitated.

The therapeutical use of dialysed iron may be deduced from what has preceded. When the astringent properties are indicated, the per-salts should be employed; but when astringency is not required, it is better to select the proto-salts and other milder preparations, according to their relative strength and liability to produce disagreeable symptoms. When small doses of the vegetable salts or of reduced iron

are not well tolerated we may rely upon dialysed iron. Inverting a common practice, would it not be as well to make a rule of giving the least irritant preparation of all whenever there are no indications for the stronger ones? As dialysed iron does not interfere with the digestive organs, it may often be given when no other chalybeate is tolerated, and it is not necessary to precede its use by the time-honoured aperient, nor to repeat that dose at more or less frequent intervals. It will, of course, be understood that in making this statement I presume that iron is indicated, and that the digestive organs are not in such a condition as to forbid it.

The effect of chalybeates is generally measured by clinical observation. The testimony of physicians to the activity of dialysed iron is so abundant that it is unnecessary to add to it. That the metal is readily taken into the blood is not to be doubted, although some have supposed that there would be a difficulty in the absorption of particles which do not pass through the dialysing membrane. But this suggestion can have no weight, considering the numerous insoluble substances which are at once so changed in the stomach as to become easily assimilated. Moreover, the hæmatinic effects of the remedy may be measured by the modern method of counting the blood-corpuscles; and Dr. Amory has succeeded in projecting upon a screen a magnified image of the slide employed in this method. In five cases of anæmia with diminished corpuscles, as determined by the hæmacytometer, the globules rapidly increased under the use of ninety drops daily, and general improvement went on *pari passu* with this increase. Further observations will, no doubt, confirm these results, and the estimation of the state of the blood by enumerating the globules will continue to be of the greatest use. It is true that, according to Hayem, the number is not always affected by iron; and C. Bernard found that the corpuscles were not invariably deficient in the blood of chlorotic patients. On the other hand, Hayem found the globules improve in quality, size, colour, etc., under the influence of iron in cases in which there was no deficiency in their number.

The average dose of dialysed iron is from twenty to fifty drops daily, in three doses. Dr. Weir Mitchell gives a drachm of the solution at a time, and finds that such doses neither "constipate nor affect injuriously the process of digestion." I have sometimes followed him in the use of these doses, but usually prescribe from ten to twenty drops after every meal. The dose may be taken in a little water or on a lump of sugar. Professor Da Costa has used it hypodermically with great benefit, beginning with fifteen minims, and soon increasing to thirty. No inconvenience, local or general, was produced, and he suggests this method of administration in gastric ulcer, pernicious anæmia, and when, from defective absorption or assimilation, it seems desirable to introduce the remedy directly into the system.

As an antidote to arsenic, dialysed iron deserves attention. The rapidity with which it acts on arsenical preparations is easily observed in a test-tube, and naturally suggests it as a substitute for the most peroxide. In the *Philadelphia Medical Times* for December 8, 1877, Dr. T. B. Reed recorded a case of poisoning by arsenic in which he had very successfully employed dialysed iron; and quite a number of cases have since been published. The solution has the advantage of being ready when wanted, while the older antidote has to be freshly prepared for the occasion—a process necessarily involving loss of time.

A word as to purity. We have seen how sensitive the liquid is, and how much it differs from any solution prepared by saturation. Yet no doubt such solutions have been substituted for the real products of dialysis; indeed, some specimens have found their way into the market, which were not only innocent of any acquaintance with the dialysing membrane, but seemed little else than diluted solution of perchloride. Such frauds necessarily give rise to disappointment, but, fortunately, are easily detected by test-paper or by the taste. The product of careful dialysis is quite neutral, has no astringency, and answers to the chemical characteristics stated above. It cannot be advantageously made on a small scale. Bravais' liquid has obtained considerable repute in France, but is not quite neutral and is too weak. In prescribing dialysed iron I usually specify Wyeth's, which is quite neutral, is fully concentrated, containing 27·68 grains in the ounce, and has been employed in all the most important investigations into the use of the remedy.

Dean-street, Park-lane, W.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

MR. LISTER'S CLINIC.

Among other cases of interest, we saw the following at the visit on Monday last:—

Gunshot Wound of the Left Forearm.

A young man, about eighteen years of age, was walking out one day in Lewisham, when he felt a slight blow on the arm. He thought it was from a stone. On further examination, however, it proved to be of a more serious nature—in fact, a wound from a rifle bullet. The bullet had entered the forearm about two inches below the elbow, on its outer border; it lay beneath the skin on the inner surface of the forearm, about three inches above the wrist; the bone was not fractured; neither the vessels nor the nerve appeared to be injured, and the movements of the fingers were good. Mr. Pollard, the House-Surgeon, cut down on the bullet and removed it. He then syringed out the track of the wound with carbolic solution (one to twenty), and applied the usual dressing afterwards. The wound had run an aseptic course, and was almost healed, except on the surface, to which a little boracic lint was applied. The bullet was of the Martini-Henry pattern, such as is in use at present. It was flattened at its tip, as though it had already struck or grazed some hard substance before entering the man's arm. Its source had never been discovered, and there were no rifle-butts within a considerable distance of the place where the accident occurred. Mr. Lister drew attention to the difficulties of rendering such wounds aseptic, but pointed out what a favourable course they ran, as in the present case, provided asepsis was obtained; he recommended that this should always be tried, for even if our efforts proved unsuccessful, no harm resulted from the trial. The bullet, he said, in this case had most probably been deflected by the fascia of the forearm, and had run round the bone instead of fracturing it. This was a little unusual in a bullet travelling at a comparatively slow velocity, though a very common occurrence when the bullet had a high velocity. Mr. Lister related a curious circumstance illustrating this deflection of rifle bullets. Some gentlemen were once shooting at a wine-bottle floating about in a pond, situated at a much lower level than they themselves were standing on. This pond was separated from the adjoining property by a high wall. One of the bullets, however, found its way over this wall, and when the shooters were remonstrated with, they declared it to be a physical impossibility that the bullet was shot by them, as they were shooting directly downwards on to a much lower level. The explanation was doubtless this: the bullet travelling at a high velocity was deflected by the water, and rose, and actually cleared the garden wall, as had been asserted. The moral is obvious.

Bursa in Popliteal Space.

A middle-aged woman was shown, who, when admitted had an enlarged bursa in the ham. It had been punctured and emptied; then a blister was applied. There had been no re-accumulation of the fluid whatever. Mr. Lister remarked on the efficacy of this combined plan of treatment. Had either alone been adopted, it is probable that it would have proved insufficient.

Radical Cure of Hernia.

A successful case operated on recently was seen. Attention was here drawn to the difficulty of keeping such a wound aseptic owing to its proximity to the perineum and the urinary apparatus. It was therefore necessary at first to keep to carbolic acid, which was one of the most powerful antiseptics we possessed. In this case the sac had been cut off, and at our visit the wound was almost closed. It was now dusted over with iodoform, a layer of wet gauze, and then a pad of salicylate wood, being placed over the whole, until consolidation of the cicatrix should be complete.

Cancer of Breast, with Implication of the Axillary Glands.

A woman, on whom amputation of the breast and clearing out of the axillary glands had been performed a few days earlier, was brought in. The wound was several inches long, extending high up into the axilla. It had been necessary to remove a considerable area of skin at one place. With the exception of this, the whole incision had healed by the first intention. At the open spot, where it had been impossible to bring the skin-edges into contact, there was some organising blood. Mr. Lister especially pointed out that he did not wash this away, for it acted as a covering to the tissues below, and a protection against the irritation of the carbolic acid while cicatrisation was taking place. The case seemed to us to illustrate well the value of Mr. Lister's "artificial finger-tips" in approximating gaping wounds. They are broad pieces of thin leaden plate, perforated in the centre, and through which the silver-wire passes. Silver-wire of considerable thickness appears to be universally used and chiefly relied upon for bringing together the edges of wounds. It cuts its way out less fast, and can therefore be left longer *in situ*. The leaden plates act by distributing pressure over a much larger area than a single stitch of any kind or thickness could possibly do. Accurate adaptation of the skin-edges is made by placing a number of finer stitches between the stronger ones. In connexion with this case, Mr. Lister pointed out also—and, it seemed to us, more clearly than we before remember—the *rationale* of every step in the dressing of the wound. The necessity, in the first place, of making the dressing comfortable to the patient; the use and value of a large, broad dressing, so as to secure an ample supply of carbolic (or other antiseptic) material, into which the discharges might run. He pointed out that a well-adapted dressing contained a sufficiency to keep down putrescence for twenty-four hours, even if the discharges were copious; and emphasised that it was none of his teaching that an antiseptic dressing required changing the moment discharges "showed through"—indeed, it was one of the advantages of antiseptic dressings that changes were required less frequently than with some other modes of dressing wounds. Reference was made to the irritant properties of carbolic acid; other forms of dressing were now to be obtained, such as the eucalyptus gauze, which was very efficient, as well as iodoform, and salicylate wool; these latter might be used in certain cases with advantage.

DEATHS FROM PHTHISIS.—According to the *Siglo Medico*, April 24, the following are the proportions of deaths from phthisis in 1000 deaths from all causes:—In London 114, Geneva 125, Buenos Ayres 128, Sweden 134, New York 135, Philadelphia 140, Boston 150, Belgium 152, Brussels 168, Rio de Janeiro 168, Paris 176.—*Lyon Méd.*, Nov. 26.

THE BACILLUS TUBERCULOSIS.—Before a largely attended meeting of the Philadelphia County Medical Society, Dr. Formad made a demonstration of the bacilli tuberculosis, and observed that thus far there had been no reliable demonstration of the etiological relation of these bacilli to phthisis. He did not dogmatically deny it, but did assert positively that it could by no means be considered as proved. He objected to the importance attached to the reaction of these bacilli to certain staining fluids, because from his own experiments he had found it not to be peculiar. The result of Koch's inoculation experiments he discredited, because the successful ones had been made only on animals that have a very strong predisposition to tuberculosis and contract it from inoculation of non-specific substances, while others, which were claimed to be successful, he regarded as cases of pseudo-tuberculosis. The view in regard to the bacilli tuberculosis to which Dr. Formad inclined, was that they do not cause the disease, while it is likely that they do "condition the fatal issue." The remarks were received with marked interest, and were followed by a brief discussion, participated in by Drs. Wood, Gross, Tyson, Bartholow, Cohen, and others. None of the speakers seemed to have adopted Koch's views, and it was spoken of as a matter of congratulation that one so well fitted as Dr. Formad should have presented the arguments against them, since the truth would be arrived at all the more surely if the new doctrine were put upon its defence and not allowed to establish itself without due scrutiny.—*Phil. Med. News*, October 28.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, DECEMBER 2, 1882.

THE NORWICH VACCINATION INQUIRY.

WE last week gave an outline of the report which has been placed before Parliament relating to the deaths following vaccination which occurred at Norwich. We purpose now to make a few comments upon the matter.

First, we must say what is perfectly obvious, but nevertheless is not always acknowledged; that is, that there are dangers which attend vaccination. In the present case Dr. Buchanan holds that the fatal disease was set up by infection of the children by dirty points. There is no direct evidence, it is true, that this was so, but it is a hypothesis which explains what took place. Whatever exception be taken to the assumption of such an occurrence in these cases, there can be no doubt that it is quite possible that any number of children *might* be given fatal diseases by similar means. We know too that syphilis can be inoculated through the vaccine lymph, even with lymph which presents no abnormal quality capable of detection otherwise than by actual experiment. Lymph taken at the wrong time may cause very troublesome inflammation of the vaccinated limb. It is quite conceivable that yet more serious diseases might be conveyed by the vaccine point or lancet, although fortunately no instances of such are yet known to have occurred. These things unfortunately must be recognised. We, who possess special knowledge of the human frame and its disturbances, can only maintain the confidence of the public by acting towards that capricious, timid, credulous, and yet sceptical body, with perfect candour. Truth is the only thing that will bear to be examined and cross-examined, handled, analysed, and dissected. There is a large body of ignorant persons, who, exercising, upon things they do not understand, their right of private judgment, have argued themselves into the opinion that vaccination is a delusion and an injury—a delusion, they consider, because it does not protect against small-pox; an injury because it sometimes introduces poison into the blood. The agitators who lead them into this mistaken belief can say anything, because they have no reputa-

tion to maintain. But it is different with us. The doctors, people are told, are a set of humbugs, whose interest it is to keep up a monstrous fraud; their so-called science is a hollow sham; and any inaccuracy in a medical statement is pounced upon as an illustration and a proof of this. The only way to combat error of this kind is to put before people the exact truth, and the whole truth, concealing and extenuating nothing. It is true that vaccination does not always protect against small-pox; true also that it sometimes is the means by which disease is communicated. But the number of cases in which either harm results from the operation, or the protection conferred is incomplete, is so infinitesimally small, compared with the number in which absolute security from small-pox is gained by a perfectly harmless local malady, that no wise man would hesitate for a moment before submitting to the protective measure, taking its risks as they are. But although these risks do exist, they ought not to. With a perfectly healthy vaccinifer, a fairly healthy subject, and perfectly clean instruments, lymph taken at the right time, and inoculated without undue local irritation, no harm ought to follow. The introduction of contagium implies a fault somewhere, probably, although not necessarily, that of the vaccinator. We cannot here consider in detail the precautions which ought to be taken. The Local Government Board puts its trust in inspection and in rewards for success; and, imperfect as these measures must be, they are perhaps the best available. This part of the subject, however, we must leave for the present.

The most important part of the Blue-book is the memorandum by Dr. Buchanan appended to it, in which the Chief Medical Officer of the Privy Council criticises in a very outspoken manner the inspectors' report. The consideration which, in dealing with patients, medical men are accustomed to show one to another, and the hesitation of right-thinking men to interpret unfavourably the reported sayings and doings of others, are sometimes construed by the laity as indications of a mystery, of a resolve to cover up mistakes, and not to let the public behind the scenes. For this reason we cannot help feeling a little pleasure that, in the high and conspicuous position Dr. Buchanan occupies, he does not shrink from saying what he thinks; and we have sufficient confidence in the public spirit of his inspectorial staff to feel sure that any one of them will be glad, rather than hurt, when errors and omissions in their work are pointed out and made good, although the process may be painful to "son altesse, ma vanité."

We come now to the inquiry. The deaths occurred in June, 1882. In July an investigation was made by Dr. Airy, who failed to find out their origin; and therefore in August a public inquiry was held by Mr. Henley (a non-medical inspector) and Dr. Airy. We have not before us any report on Dr. Airy's first unsuccessful research, and therefore, as to that, we can say little. The only point that seems noteworthy is this. During his earlier inspections, made, not with especial reference to any deaths, but simply to see that vaccination was efficiently performed, Dr. Airy had found Dr. Guy in the habit of using points, and had expressed dissatisfaction with the practice. Dr. Airy was under the impression that Dr. Guy had, in deference to his representations, left off the use of points, and he did not, in his special inquiry into the matter of the deaths, find out the contrary. We infer that Dr. Airy formed this impression simply from seeing Dr. Guy transfer lymph with the lancet, and not with points; but it is difficult to escape from the dilemma that either the inquiry could not have been very thorough, or the person chiefly concerned must have somehow misled the inspector. But on this point we must refer our readers to Dr. Buchanan's report.

A public inquiry is one of the least efficient ways of settling a medical question that can be devised. When the inquiry is made publicly, its subject-matter, which should be one simply of scientific fact, is likely to become mixed and confused with all kinds of personal charges and counter-charges. Instead of a skilled medical investigator searching out the solution of a pathological problem, we have the wordy warfare of opposing counsel, whose business is not with the truth, but with the interests of their clients. In the present case, Dr. Buchanan observes, with reference to the public inquiry, "Dr. Airy was then concerned with Mr. Henley in investigating a 'complaint,' and he did not return to the study of the means by which the children may have got their erysipelas." The "complaint" was that vaccination had killed the children, and counsel was employed, by persons opposed to the practice, to make it appear, if possible, that the source of the fatality was inherent in the vaccination itself. The Guardians were represented by an advocate, whose business it was, of course, to show that they were blameless; and the public vaccinator also had legal assistance—skilful gentlemen whose business it was to prevent the inspectors from finding out anything in the least degree reflecting on their clients. If they could pull their clients through blameless by fixing the cause of the mortality elsewhere, they would of course do so; but to push inquiry further than was necessary from the point of view of their clients' interests, would have been to exceed their duty.

A medical question can be properly dealt with by medical men alone. We have seen enough of the fiascos which followed Mr. Stansfeld's attempt to replace medical inspectors by laymen. In this case the medical inspector did not succeed in the first investigation. Therefore, a lay inspector is deputed to assist him; a lengthy inquiry is held, and a mass of testimony elicited. As might have been expected, where the medical inquirer was at fault, the layman could not assist him; and the public inquiry, like the private one, ends in nothing. The depositions then come under another medical eye, and the key to the riddle is to him at once apparent.

We do not think it necessary to comment upon the argument of Dr. Buchanan's report, because we print it elsewhere, and it speaks for itself. To us it seems unanswerable.

THE ARMY MEDICAL REPORT FOR 1880.—No. IV.

We now notice Appendix No. 4, which furnishes a report on the medical transactions in Natal and the Transvaal during the Boer Rebellion, 1880 and 1881, by Deputy Surgeon-General Holloway. We are sorry to learn from it that at the commencement of the outbreak the establishment was not only on a peace footing, but also out of repair and almost worthless, for it seems all the extensive ambulance service of former wars had been sold by auction, and those that remained in store were out of order, while the tents were specially out of repair. Nor was this all, for when fresh tents were at last ordered to be furnished, these necessary stores were detained for weeks, *because ammunition had been packed with them in the ambulance carts*, and the whole were kept back till an escort could be provided. We are told "the lack of tents and field hospital equipment has been the only want felt during the war, and this has been mainly due to the field hospital of 200 beds, requisitioned for by the Ordnance Store Department on Christmas-day, not having reached Natal till April; and I trust," continues the medical officer, "that in subsequent wars all camp equipment may either be consigned direct to the Officer of Orderlies to the Force, or such steps be taken as may insure its prompt supply to this Department, which suffers in *efficiency* and in *reputation* by the want of it."

This but confirms the opinion that we have always held, that in their own Department, and over all connected with it, the doctors should exercise a sole control. There is, and always has been, a carelessness about details in the British Service, and it seems nobody's business to superintend what are apparently deemed trifles; but we cannot help noticing how serious a result may follow the neglect of trifles, when we read in Appendix No. 5, which gives a port of the siege of Fort Mary Lydenburg, commencing on January 6, and ending on March 31, 1881, that the defenders were placed on reduced rations, and that "25 per cent. at least of the preserved meat was bad, caused by holes in the tins from the driving of nails into the packing-cases"! And now let us notice Appendix No. 11, which contains many true things, and some new things that require further consideration. The report is on Palpitation of the Heart in Soldiers, by Brigade-Surgeon Veale. Many of our readers will remember that a War Office Committee came to the conclusion some years ago that palpitation of the heart was mainly due to improper adjustment of the weights carried by soldiers, and the old form of knapsack and crossbelt was abolished, and the valise equipment adopted in its stead. But there are grounds for believing that palpitation continues to be of frequent occurrence in the Army, and Dr. Veale has continued an inquiry as to the mode of its production. In a summary of causes, in 180 cases, we find he assigns 26 to fever (chiefly malarial), 22 to intemperance, 21 to heat of climate, 18 to marching, 18 to exertion generally, and no less than 15 to excessive smoking. But in investigating the tobacco question we further observe that he goes further than most anti-tobacconists have gone. Dr. Richardson has placed his opinion on record that the action of tobacco on the heart is only functional; but Dr. Veale evidently has doubts on this point, for he says, "the facts seem to indicate that palpitation in soldiers is generally a result and sign of a dilating process, which has begun and is progressing either subsequently to hypertrophy, or independently of it and without it, or without a sufficiency of it. Very few," he continues, "if any, of the cases answer to the description of the neurosal form of palpitation, with the exception *perhaps* of those which are induced by excessive smoking." Dr. Veale says he has no personal bias against tobacco, but the result of his inquiry is that "the influence of tobacco in *weakening* the heart and rendering it liable to palpitation appears to be very decided." In considering high external temperature as a cause of palpitation, we are astonished to find Dr. Veale denouncing flannel as a mischievous article of dress. He considers that it interferes with the action of the skin, which, if left unswathed by flannel, would reduce heat by increased activity. Dr. Veale remarks—"Whilst the natives of India, and even of Southern Africa, wear either very little clothing or none at all, our soldiers, when serving in these countries, generally wear flannel shirts; and, as if that were not enough to lessen their power of preserving their normal temperature, they are required to wear round the body two other folds of flannel, in the form of a belt, which, from being supposed to be possessed of anti-choleraic virtues, is denominated a cholera-belt." Dr. Veale points out that the New Zealanders "never suffered from rheumatism before they began to use the white men's blankets"; he remarks also that Bluecoat boys, who wear no caps, are not sufferers from colds in the head, and that kilted Highlanders are not specially liable to rheumatism; but we cannot think that Dr. Veale has made out a good case against flannel. The naked savage may plead that he is "all face," and may be all the better for doing without dress, but civilisation requires some form of clothing, and we are not convinced that flannel is an injurious form in either hot or cold climates. We can well believe that the New Zealanders, on first using blankets, suffered in health, for they exposed themselves to new and untried conditions. It may be that Bluecoat boys might suffer if they wore warm caps three days out of seven, and the Highlander who wore his kilt only one day out of the seven would very probably get rheumatism. All dress may have its dangers, and the greatest danger may lie in any sudden change of clothing and exposure to the atmosphere. We have all read the views of Dr. Black and Count Rumford on the subject of flannel, and we are still inclined to agree with them. The fact is, we must wear linen or flannel, and we are of opinion "that it is the warm bath of a perspiration, confined by a *linen shirt* wet with sweat, which renders heat so insupportable; but flannel promotes perspiration and favours its evaporation; and evaporation, as is well known, produces positive cold."

We have been able to give but a short summary of some of the papers in the Appendix to the Report; but we can assure our readers that a careful perusal of many will repay the reader for his trouble.

THE METROPOLITAN IMPROVEMENTS ACT, 1877: SECTION 33.

THE case of "Spencer *v.* the Metropolitan Board of Works" was argued before Mr. Justice Chitty, in the Chancery Division of the High Court of Justice, only three weeks ago, and judgment given in favour of the plaintiff. The Board of Works appealed against that decision to the Supreme Court of Judicature; and already the appeal has been heard and decided. This promptness of procedure in our courts of law would of itself be very noticeable, but the importance of it is increased by the fact that the judgment of the Court below has been reversed. The appeal was heard, on November 24, before the Master of the Rolls, and Lords Justices Cotton and Bowen; and, though their lordships differed in opinion, the appeal was allowed, and the injunction granted by Mr. Justice Chitty against the Metropolitan Board of Works was dissolved. The question raised before Mr. Justice Chitty, and again by the appeal, is one of great importance with respect to Section 33 of the Metropolitan Improvements Act, 1877. The section recites that the making of the street improvements in the Act involved the removal of many houses occupied by the labouring classes, and that it was expedient to provide accommodation for the persons who would be thus displaced; and then enacts that before the Board shall, without the consent of one of Her Majesty's principal Secretaries of State, *take* for the purposes of the Act (*i.e.*, for the widening and the making of streets) fifteen houses and more, occupied, wholly or partially, by persons belonging to the labouring classes, the Board shall prove to the satisfaction of the Secretary of State that sufficient accommodation in suitable dwellings has been provided elsewhere upon lands specified. But it was also enacted that the Secretary of State may release the Board from the obligations imposed upon them with respect to the lands specified, provided the Board substitute instead thereof other lands equally available for the purpose. The Board had served Mr. Spencer with notice to treat for sixty-three houses belonging to him, and required by the Board for the purpose of making a new street, and they had served him with notice of summoning a jury to assess the purchase-money and compensation; but they had not obtained the requisite consent of a Secretary of State, nor had they as yet provided accommodation for the persons to be displaced. The plaintiff therefore sought an injunction to restrain the Board from acting upon the notice to treat till the proviso in Section 33 should have been complied

with. The Board contended that the word *take* in the section in question was to be read as meaning to take possession of, and that it is unreasonable to suppose that the Legislature intended that the Board should be obliged to provide dwelling-houses for the persons to be displaced long before their displacement be effected. Mr. Justice Chitty, however, held that the word *take* in the section referred to included purchase, and that the interests of the labouring classes would be better protected by this construction than by the construction put forward by the Board, and, accordingly he granted the injunction prayed for.

After the Court of Appeal had heard counsel on both sides, the Master of the Rolls, in delivering judgment, after some not very complimentary remarks on the misplaced ingenuity shown by the draftsman or other person responsible for the Act in using vague and disputable, instead of simple and plain terms, said that the question raised was one of very great difficulty, and that though he had arrived at a conclusion, he could not say that those who differed from the view he took were not right—a degree of diffidence as to the absolute and eternal correctness of his own judgment rarely shown by the Master of the Rolls. The object of Section 33 was to make provision for the accommodation of such of the labouring classes as would be displaced by the removal of houses involved in the street improvements; the labouring class was to be protected, not the individuals actually disturbed—an argument that must seem to the non-legal mind, we think, rather strained and subtle. But, his lordship said, if the Board took away the houses, equivalent accommodation must be provided. That was the key, and that was the object of the section. The Board were bound, from time to time—that is, within a reasonable time, but no time was fixed,—to acquire other lands for the erection of suitable dwellings for the labouring classes, equivalent to those from which they had been displaced. The Board were authorised by the special Act to take the lands for the purposes of the improvement specified in the Act, and, if so, then they were authorised by Section 18 of the Lands Clauses Act, which was incorporated with the special Act, to give notice to treat and proceed under such notice. The proviso in the special Act did not, therefore, prevent them from taking the preliminary steps by giving notice to treat; and it was a fallacy to say that the Board were not authorised to take because they could not complete their title at that moment. It did not appear to him that the existence of the condition precedent to entering upon and using prevented the lands from being accurately described as lands which the Board were authorised to take under the special Act. It must be borne in mind that it was made compulsory upon the Board to acquire the land and get the necessary houses built. They had no option in the matter. That seemed to show that the Legislature could not have considered that they were bound to go on with all the steps at the same time. But if the plaintiff's contention were correct, not only must land be acquired and then sold or let upon building leases, but houses for the working classes must be built upon such land, and all this before the Board could take the land required for the improvements. The proviso seemed to him to have been inserted for the protection of the working classes, and not to enable the householders to protect them; and, moreover, power was given to a Secretary of State to dispense with the conditions. The judgment of Mr. Justice Chitty must be reversed. Lord Justice Cotton concurred in the view taken by Mr. Justice Chitty of the section in question. In his opinion the Board of Works, before they could put in force their compulsory powers, were bound to provide equivalent accommodation for the labouring classes who would be displaced. The provision of accommodation was a condition precedent, imposed by the Act before the land could be taken, which had not been performed, and the landlord was accordingly entitled to restrain the Board from exercising their compulsory powers of taking the land until they were in a position to use it for the purposes of the Act. He did not in any way feel pressed by the suggestion of inconvenience, as a Secretary of State could relieve the Board. Lord Justice Bowen, however, agreed with the Master of the Rolls, though he said his judgment was coloured by considerable doubt. The appeal was accordingly allowed, and the order of the Court below discharged with costs. The result will be satisfactory to the Metropolitan Board of Works, unless the case be taken still higher; but to the public generally the matter cannot seem satisfactory. The two judges—Mr. Justice Chitty in the Court below, and Lord Justice Cotton in the Court of Appeal—who think that the contention of the plaintiff was right, were very clear and decided in their interpretation of the Act; while of the two who upheld the reading of the Board of Works, the Master of the Rolls did not give his decision with great confidence, and the judgment of Lord Justice Bowen was clouded with doubt.

THE WEEK.

TOPICS OF THE DAY.

So many different rumours have been circulated as to the health of the Army of Occupation in Egypt (which is reported to be far from satisfactory when it is remembered that the month of November is one of the most favourable for foreigners in that country), that a contemporary has published a semi-official statement of the real position of affairs. The diseases to which the troops have been most subject are, as was foreseen, enteric fever, dysentery, diarrhœa, and ophthalmia. Of these, enteric fever has proved far the most serious, fifty-two deaths having occurred from it during the month of October. Dysentery and diarrhœa have been, and are still, very prevalent; but ophthalmia has decreased both in extent and severity. It is considered probable that much of the sickness from which the men are at present suffering was contracted during the march on Cairo, from the bad water which had to be drunk, and the filthy condition of the barracks and buildings which had to be occupied when that city was reached. The hospital accommodation at Cairo was also at first very defective, but this has now been remedied. In the citadel there is room for 280 beds; the building itself is in the highest part of Cairo, and is well suited for the purposes of a hospital, as the rooms are lofty and well ventilated. At Abbasieh there is a second hospital of 300 beds, and at Ghezireh a third, which is, however, only a tent hospital. A building near Abbasieh is also being prepared as a hospital; the position is isolated, and has been favourably reported on for this purpose. At Alexandria the principal hospital is a building consisting of four large sheds facing the sea, which hold 300 beds, and it is contemplated to supplement this by the equipment of a hulk hospital capable of holding 200 patients. It is feared that no permanent improvement in the health of the troops can be expected until they are all well housed in barracks, and everything is being done to hasten the cleansing and painting of the buildings intended for this purpose. In the meantime, the arrangements, to which we previously referred, for sending the convalescents on short sea trips or up the Nile, have been fully organised, and the latter are to be placed under the care of Messrs. Cook and Sons, who have obtained the use of three Nile steamers from the Khedive's Government. The diet of the men has also received considerable attention, and orders have been given to vary it as much as possible, and supplement it with

as much vegetable food as the local markets will afford. As the pressure of active operations has now been entirely removed, and everything practicable is being done to bring about a better state of affairs, there is every hope that before long we shall receive more satisfactory accounts of the health of that portion of our Army which is compelled to remain quartered in Egypt.

Recently, in the Court of Appeal, before the Master of the Rolls and Lords Justices Cotton and Bowen, the appeal of the Metropolitan Board of Works, as defendants in the case of Spencer *v.* the Board of Works, was argued. It will be remembered that the Board had, under the Artisans' Dwellings Improvement Act, 1877, served Mr. Spencer with a notice to treat for sixty-three houses in the parish of St. Giles-in-the-Fields belonging to him, and that Mr. Spencer contended that before the Board could require him to treat they must provide suitable accommodation for the labouring classes who would be displaced; and an application was made to Mr. Justice Chitty for an injunction to restrain the Board from taking the houses, on the ground that the provisions of the Act of Parliament had not been complied with. His lordship held that the plaintiff was entitled to the injunction, and from that decision the Board of Works now appealed. The Master of the Rolls, in giving judgment, expressed the opinion that the appeal should be allowed, and the injunction of the Court below dissolved. Lord Justice Cotton was of the contrary opinion. Lord Justice Bowen concurred with the Master of the Rolls, and the appeal was therefore allowed, and the injunction dissolved.

A deputation from the British Medical Association, headed by the Duke of Westminster, has interviewed Lord Carlingford and Mr. Mundella, the Lord President and Vice-President of the Council, to urge upon the Government the immediate necessity of legislation to remedy "the deplorable state of medical education." At the request of the Duke of Westminster, Dr. Waters of Chester, chairman of the Medical Reform Committee, set forth the views adopted by the Association, viz., that the present system of medical education was established in 1858. The British Medical Association has promoted several Bills in Parliament to remedy the defects of the Medical Act of 1858. The Association wished to establish a uniform qualifying examination for practitioners by conjoint examining boards established one in each of the three kingdoms; and also to strengthen the so-called penal clause of the Medical Act, and so protect the public against unqualified persons. Attempts had been made for years to establish a conjoint examining board in England. Supposing such a board established, candidates could still, as now, visit another division of the kingdom, and there acquire the coveted diploma which would enable them to practise in England as well as elsewhere. Dr. Waters then spoke of the inequality of examinations, especially in Scotland. The British Medical Association, he said, was of opinion that the only remedy for the present deplorable state of medical education lay in legislation on the basis of the report of the Royal Commission; and the deputation would earnestly entreat his lordship to undertake it, with the assurance of the hearty support of the profession. After other gentlemen had confirmed Dr. Waters' views, Lord Carlingford and Mr. Mundella both replied. They promised to do everything that laid in their power to obtain the legislation required, but they apprehended that, although there would not be much difficulty in passing a Bill through the House of Lords, the same could not be said of the House of Commons; nevertheless, the attempt should be made, if possible, during the ensuing session.

At Worship-street Police-court, last week, Mr. Benjamin Thornton, L.S.A., of Goldsmith's-row, Hackney-road, appeared in answer to a summons taken out under the Registration Act, charging him with having wilfully made and given a false certificate of the death of one George Howlett. The prosecution was conducted by Mr. Howard, Superintendent Registrar of the district of Bethnal Green. The evidence was to the effect that the deceased child had been seen by Mr. Thornton in the previous September, that it was diseased from its birth, and died from convulsions. The mother of the child proved taking him to Mr. Thornton's surgery, where he was seen and prescribed for by the assistant. For the defence it was shown that the defendant was a gentleman seventy-two years of age, who from ill-health had employed an assistant in his surgery. Moreover, he had practised for over twenty-five years in the district, and bore a high character. If it was true that he had not seen the child in September, as the certificate stated, it was only an error of memory. Mr. Hosack thought the defendant had knowingly, though not corruptly, broken the law, and he imposed a fine of £5, which was immediately paid.

At the last meeting of the Metropolitan Board of Works, held at the offices in Spring-gardens under the presidency of Sir J. McGarel Hogg, M.P., amongst other business brought forward, a report was presented from the Special Purposes and Sanitary Committee, recommending that a communication be addressed to the Home Secretary, urging the early introduction into Parliament of a measure for enabling the Board to make regulations as to the sanitary condition of bakehouses in the metropolis, which was unanimously adopted. As will have been gathered from communications on this subject which we have from time to time published of late, there is great need for active supervision over the bakehouses of the metropolis: only a few days since the proprietor of a bakehouse and bakers' shop in Liverpool-road, Islington, pleaded guilty to a summons charging him with failing to keep clean his bakehouse and the staircases leading thereto, and with neglecting to have the prescribed abstract of the Act posted up in his premises. In this case Mr. Hosack ordered the defendant to pay a fine of £5, and 6s. costs. It is to be hoped, therefore, that the Home Secretary will see no difficulty in the way of introducing a measure of the character pressed upon his notice by the Board of Works.

Several electric lighting companies having given notice to the City Commission of Sewers of their intention to apply to the Board of Trade, under the Act of 1882, to enable them to light the City by electricity, the Commission instructed their engineer to obtain the opinion of an eminent electrician as to whether it would be practicable to lay in the same tube the conductors of various companies for lighting by different systems of electricity, without the conductors so laid injuriously interfering with each other; and also whether the conductors laid in a district by any one company could, if their usage by that company were discontinued, be made available for any other company using a different system. On these points Mr. W. H. Preece, of the General Post Office, has reported as follows:—That, except in a subway of considerable size, it would be impracticable to maintain the conductors of different companies in the same tube; while, though there might be cases where the conductors of one company could be utilised by another, they could not be properly available unless the two companies employed the same system, and utilised the same central station for the generation of their electricity and the distribution of their force. The Commission eventually resolved that the Remembrancer be instructed to appear, on the application of any of the electric lighting companies for powers, to secure clauses protecting public and private rights.

SIR THOMAS WATSON, BART.

The condition of Sir Thomas Watson has not materially changed since last week. He takes still a fair amount of nourishment, and, as a rule, the temperature of the body is fairly well maintained, and happily he has no suffering; but, of course, there is an appreciable increase of physical feebleness and exhaustion, and the pulse is very feeble and varies in frequency.

SYPHILITIC ENLARGEMENT OF TONSILS.

An abstract of the conclusions of Dr. Paul Hamonic is to be found in the *Deutsche Med. Zeitung*, No. 45. Hamonic distinguishes, during the secondary stage of syphilis—1. *Simple hypertrophy*, which is analogous to the swelling of lymphatic glands, is tardy in its development, and, as it occasions no symptoms, is often overlooked. Both tonsils are almost always affected, though to a different degree. The enlargement takes place forwards, bulging the anterior pillar of the fauces, and rarely gives rise to deafness. The tonsils are hard and somewhat elastic; the normal depressions on their surfaces are exaggerated. The uvula tends to go over to the larger tonsil. Sometimes the tonsil may be reduced in size by anti-syphilitic treatment. 2. *Hypertrophy associated with angina*. In this there is not so much fever as in ordinary acute angina; the duration is variable, and relapses are very liable to happen. 3. *Hypertrophy complicated with syphilides*. Most frequently the syphilide appears on the tonsil and the anterior pillar of the fauces. When syphilis affects a previously scrofulous tonsil the enlargement is very great, of pale colour, often spongy and with large crypts, there is considerable pain, the voice becomes nasal, and the hearing, taste, and smell are altered. The course is generally chronic, and there is a great tendency to recurrence. Ordinary tonsillitis and sore throat may supervene even when the tonsils are syphilitically enlarged, but then, though peritonsillar suppuration may occur, it would appear that the tonsil itself never suppurates. Hamonic states that there is no objection to excision of the syphilitic tonsils if they be very large.

THE METROPOLITAN ASYLUMS BOARD AND THE LOCAL GOVERNMENT BOARD.

At the last meeting of the Managers of the Metropolitan Asylums Board, Mr. H. Seymour wished to know whether, having regard to the correspondence which had taken place between their Board and the Local Government Board in reference to the anomalous position of the Managers in discharging the duties for which they were appointed, owing to litigation and threats of litigation, any further steps had been taken to bring that important subject under the notice of the Government. The Chairman replied that it would no doubt be remembered that the Managers had several times brought the difficulties of their position to the notice of the Local Government Board. That body, however, declined to receive a deputation whilst the Royal Commission appointed to inquire into the subject was sitting, or until after they had made their report. This report having been made public, a deputation, consisting of himself, Mr. Talbot, M.P., and other members of the General Purposes Committee, had since their last meeting waited upon the President of the Local Government Board. They pointed out to him that the Managers had done all they possibly could to carry out the powers entrusted to them, but that it was utterly impossible, with such limited powers as they possessed, to carry out such duties as the Royal Commission referred to. They therefore urged upon the President that it was the duty of his department of the Government to take some immediate steps to enable the Managers to fulfil the duties imposed upon them by the Legislature. He, as chairman, drew the attention of the President to the litigation which had been forced upon the Managers in the cases of the Hampstead and Fulham Hospitals, and at London Fields, Hackney, and the threats which were still held out to them; and under existing circumstances he explained that he wished the Government and the public to distinctly understand that they (the Managers) would not consider themselves in any way responsible for the disastrous consequences that would ensue if another great epidemic should break out in London. Should such an event occur, situated as they now were, they were utterly powerless. The President was strongly pressed by the deputation to introduce in this session a short Act embodying the views of the Royal Commission in giving their Board more extended powers, and he had finally promised that the matter should have his earnest consideration. After some discussion, Mr. Seymour moved a resolution to the effect that the Local Government Board be respectfully requested to inform the Managers what steps they intended to take consequent upon the issue of the Royal Commissioners' report. Mr. J. G. Talbot, M.P., seconded this resolution, and recommended that, should the Local Government Board show further dilatoriness in the matter, the Prime Minister be appealed to on the subject. The resolution was carried unanimously, and a copy was ordered to be forwarded forthwith to the Local Government Board. Meanwhile, the session is all but ended, and nothing has been even attempted. The Managers appear to be singularly slow in arriving at a correct appreciation of the utter futility of expecting the President of the Local Government Board to do anything but consider and delay. The statistical returns of fever and small-pox in the asylums of the Managers showed that there had been a decrease of 18 in the fever cases, the numbers under treatment being 653, against 671 at the end of the previous fortnight. The small-pox returns showed an increase of 4, the number under treatment being 72, as against 68 at the end of the previous period.

EUCALYPTUS GLOBULUS IN GYNÆCOLOGICAL PRACTICE.

The October number of the *American Journal of the Medical Sciences* contains an article by Dr. Andrew F. Currier, of New York, on the above subject. The oil of eucalyptus is said to diminish the action of the heart, and the blood-pressure. Applied to the mucous membrane of the mouth, it causes a sensation of heat, followed by that of dryness. On mucous membranes in general it is stimulant, astringent, and antiseptic. Dr. Currier thinks it also has an anæsthetic effect. The objections to the preparations of eucalyptus are their expense, their insolubility in water, and their volatility. It can be combined with iodoform, with the result of destroying entirely the unpleasant smell of that drug. Dr. Currier speaks more particularly of the benefit derived from eucalyptus in the treatment of chronic ovaritis; a disease for which he was advised to use the drug by Dr. James B. Hunter. He narrates five cases. The preparation employed was a solution composed of equal parts of the fluid extract of eucalyptus and glycerine. About half an ounce of this was distributed upon pledgets of cotton-wool, with which the vagina was lightly plugged, and this was repeated daily for several weeks. In each case the pain suffered by the patient became less when the eucalyptus was used, and if, from any cause, the daily application was omitted, the pain and discomfort returned. Dr. Currier thinks the eucalyptus will be found of service in every case attended with fœtor of the discharges, and also in the treatment of the wounds left after the removal of tumours of the breast.

THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-sixth week of 1882, terminating November 16, was 1002 (551 males and 451 females), and among these there were from typhoid fever 120, smallpox 6, measles 11, scarlatina 1, pertussis 5, croup and diphtheria 27, erysipelas 9, and puerperal infections 4. There were also 38 from acute and tubercular meningitis, 175 from phthisis, 23 from acute bronchitis, 65 from pneumonia, 73 from infantile athrepsia (22 of the infants having been wholly or partially suckled), and 24 violent deaths (19 males and 5 females). The number of deaths registered this week is smaller than the mean of the four preceding weeks. A diminution of the deaths from diphtheria (from 45 in the preceding week to 27) and a slight increase of those from typhoid fever (from 112 to 120) are the chief features to be observed; but during the week there were only 294 cases of typhoid admitted into the hospitals, instead of 341 during the preceding week. From the forty-first week, when the admissions were 1001, they have continued to decrease weekly—viz., to 741, 406, 428, 351, and 294—showing the great amelioration that has taken place during the last month. One remarkable fact may be noticed, namely, how little the increase of deaths from typhoid fever has influenced the general mortality. Thus we find that from the thirty-first to the forty-sixth week of 1881 there occurred 530 deaths from typhoid fever, while during the same period of 1882 they have amounted to 1779, *i.e.*, 1189 more; but the total deaths for these same weeks of 1881 were 15,751, and 16,269 in 1882, or only 518 in excess—proving that the increase of deaths by reason of the prevailing epidemic is, to a certain extent, compensated by a diminution in the ordinary mortality of other diseases. The births for the week amounted to 1037, viz., 580 males (427 legitimate and 153 illegitimate) and 517 females (381 legitimate and 136 illegitimate): 107 infants were born dead or died within twenty-four hours, viz., 48 males (35 legitimate and 13 illegitimate) and 59 females (37 legitimate and 22 illegitimate).

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

IN the *Revue de Médecine* (Nos. 10 and 11) there is a critical review of the results of nerve-stretching in locomotor ataxy and other diseases of the spinal cord. With the latter class of cases we have at present nothing to do, but we think the results of inquiry into the former class of cases ought to be made known. In the review mention is made of 54 cases, published in various parts of the world, where the sciatic nerve was stretched for locomotor ataxy. Of these no fewer than 6 died, and in 3 cases the death was directly attributable to the operation. In 19 instances the patient derived no benefit whatever from the operation. In 18 instances there was either alleviation of one or more symptoms or some temporary benefit, or there was immediate benefit from the operation but the ultimate result was not known. In the remaining 11 cases a lasting improvement was noted. Thus the outcome of this inquiry is that in about 54 per cent. of the cases the operation was followed by permanent or temporary benefit, and in 46 per cent. no good resulted from the operation, death ensuing in 11 per cent. of the cases. We must note the fact that in one instance Langenbuch had twice performed this operation with some benefit when the patient died after the third operation, and Westphal found the spinal cord perfectly healthy. This certainly was not the case in any of the fatal cases referred to above, but we cannot help feeling that there is a possibility that some of these successful cases were not really cases of disease of the spinal cord at all. The operation is one which has not found much favour in this country, and in London it has found very few advocates indeed. We think the statistics we have given above will not tend to increase the favour of the operation in the eyes of those who make the welfare of their patients their first consideration.

A SMOKE-ABATEMENT INSTITUTE.

THIS Institute has just been organised, and the articles of association approved by the Board of Trade. The Dukes of Westminster, Northumberland, and Sutherland are Vice-Presidents, and Mr. Ernest Hart President of the Council. Between £200 and £300 has been subscribed towards the funds of the Institute. *A propos* of the objects of the Association, the Corporation of the City of London has appointed a committee to study the question of smoke-abatement in London, and to consider the defects of present legislation and the advisability of taking more urgent measures for its abatement. Touching this question, too, Dr. Siemens, in concluding his opening address to the Society of Arts, last week, stated that the late Exhibition—referring to the Smoke-Abatement Exhibition—had been beneficial in arousing public interest in favour of smoke-abatement, and it was satisfactory to find that many persons, without being compelled to do so, were now introducing perfectly smokeless arrangements for their domestic and kitchen fires.

OVARIAN PREGNANCY WITH LITHOPÆDION OF THIRTY-FIVE YEARS' DURATION.

A CASE of the above rare kind is related in a recent number of the *Archiv für Gynäkologie* by Dr. Leopold of Leipzig. The history is briefly the following:—The patient at the time of her death was seventy-five years old, and had been pregnant eight times. Shortly after her fourth labour she again conceived (being then forty years old), and presented the diagnostic signs of extra-uterine gestation. It did not cause her any suffering to speak of; and at term the fœtus died, but no subsequent discomfort was experienced. After this the patient bore three children with easy and natural labours. The abdominal tumour became from year to year firmer and harder, was recognised by medical men as a lithopædion, and was borne for the rest of life without trouble. On autopsy, the fœtus was found lying with the head downwards, the breech directed towards the liver. It weighed about three pounds. It was enclosed in a capsule of bony hardness, which could only in places be indented by the finger. The child was doubled up so that the chin was in contact with the upper part of the sternum, and the thighs with the lower part. When extended it measured about seventeen inches in length. Nearly all the organs could be recognised, and the histological structure of many tissues was preserved. The pregnancy, Dr. Leopold thinks, was ovarian. He quotes from Spiegelberg four distinguishing marks of ovarian pregnancy—1. That the ovary on the side of the pregnancy cannot be found; 2. That the Fallopian tube on the side of the pregnancy can be traced unaltered; 3. That the ovarian ligament runs from the cyst to the uterus, and that the topographical relations of the tumour are those of the ovary; 4. That Graafian follicles can be found in the cyst-wall. In the case under consideration the three first of these characters were present; the fourth was not discovered, but the changes which had taken place in the cyst-wall would evidently have prevented the recognition of any such structures that might once have existed. Dr. Leopold enumerates thirteen indubitable published cases of ovarian pregnancy (a variety once regarded as impossible), this one being the fourteenth. Dr. Leopold refers to his former writings on the subject of lithopædion, in which he has pointed out that the ultimate fate of a retained extra-uterine fœtus depends upon whether its membranes remain entire or not. If they burst, the fœtal

tissues are invaded by leucocytes, the soft parts disintegrated and removed, and the skeleton only remains. But if the membranes remain uninjured, the fluid constituents of the fœtus are absorbed, and mummification, or even, as in this case, calcification, takes place.

HONOURS TO MEDICAL MEN.

THE QUEEN has been graciously pleased to appoint Surgeon-Major Frederick Beaufort Scott, M.D., attached to His Royal Highness the Duke of Connaught, with the Army in Egypt, to be an Ordinary Member of the Third Class or Companion of the Most Distinguished Order of St. Michael and St. George. It is authoritatively announced that Dr. John Watt Reid, Director-General of the Naval Medical Service, is to be made a Knight Commander of the Most Honourable Order of the Bath.

TYPHOID FEVER IN PARIS.

THE *Gazette Médicale* reports for the week ending November 22 that on the morning of the 16th there were 1558 cases of typhoid fever in the Paris hospitals. During the week there were admitted 194 new cases, 359 patients were discharged cured, and 49 died, leaving 1353 on the morning of the 22nd, a diminution of 205. There was therefore a daily mean of 27·51 admissions and 5·71 of deaths, being a difference of 8·15 per diem less than the preceding week for the admissions and 1·29 less for the deaths. [The administration has discontinued publishing the daily number of burials of patients dying of typhoid.]

TREPHINING.

DR. OBALINSKI relates in the *Wiener Med. Woch.*, No. 44, two successful cases of trephining. The first occurred in a man, aged forty-five, who, two weeks after a wound of the head, on the left side, showed gradually increasing paralysis of the right side, with augmented knee-phenomenon and some rigidity of muscle. On careful consideration, it was deemed fit to perform the operation of trephining, as it was thought probable that the symptoms mentioned were due to an abscess. The operation was done antiseptically. The dura mater was incised, some yellow matter escaping; the cavity was washed out with a 1 per cent. solution of thymol, drained, and dressed. Some reaction followed and lasted a few days, but patient's consciousness and the bad symptoms soon subsided, and he left the hospital at the end of nine weeks, at the end of which time the paralysis and rigidity had entirely subsided. Dr. Obalinski comments on this case in respect of the disappearance of the paralysis and rigidity. A thorough explanation of such phenomena is very difficult. The case is remarkable in that hemiplegic rigidity of any standing is generally looked upon as indicating sclerosis of the lateral columns. Such a lesion could hardly have been the cause of the increased knee-jerk and rigidity in this case. The second trephining was done for a depressed fracture of the right parietal bone. The patient was a labourer, twenty-five years of age; the symptoms were those usually assigned to compression of the brain. The treatment was again antiseptic, and quite successful, the man being allowed to return to his work in six weeks. The first-mentioned case is the more valuable: in it there was no aphasia; there was some paresis of the right facial muscles, and paralysis of the right arm and leg. If we suppose that there really was, as there seems to have been, an abscess about the convolutions in the neighbourhood of the fissure of Rolando, it is remarkable that the paralysis should disappear, but still more so that the signs usually attributed to sclerosis of the crossed pyramidal tract should also fade away. Physiologists and pathologists have long disputed as to how the recovery from paralysis due to cortical lesion can be explained—some supposing that other portions of the same hemisphere can adopt the work of the destroyed convolutions; others holding that the corresponding area of the other hemisphere manages the business. However, no one pretends that we are yet near the goal of our ambition in regard to matters relating to the physiology and pathology of the nervous system.

THE METROPOLITAN WATER-SUPPLY FOR OCTOBER LAST.

THE report of the Water Examiners on the supplies furnished by the different metropolitan water companies during the month of October last records a serious falling off in quality as compared with previous months. Undoubtedly the condition of the rivers from which the supplies are originally derived is mainly responsible for this, since in his report on the state of the water in the Thames at Hampton, Molesey, and Sunbury, where the intakes of several of the companies are situated, Colonel Bolton remarks that it was good in quality from October 1 to 16, after which it became turbid, and remained in that condition to the end of the month. The river was in a state of flood during the latter part of the month. The water in the river Lea was also in a bad condition during the latter part of the month. On turning to the report of Messrs. Crookes, Odling, and Tidy, it will be found that the condition of some of the samples examined was unsatisfactory, in respect to their colour, turbidity, and proportion of organic matter, towards the end of October. Dr. Frankland observes that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies was in every case inferior in quality to that of the previous month. With the exception of that supplied by the Chelsea Company, the water was, however, efficiently filtered before delivery. The water drawn from the river Lea by the New River and East London Companies, although, in the case of the East London Company, inferior to that of last month, was superior to any of the Thames waters. Both waters were delivered in an efficiently filtered condition.

PORRO'S OPERATION.

DR. GODSON performed Porro's operation, on Monday, at a lodging in Islington taken for the purpose, on a dwarf, aged twenty-four, with extreme distortion of the pelvis. From first to last the operation took just one hour. The child—a girl, living—weighs eight pounds and a half, and measures twenty inches in length, the height of the mother being but fifty-two inches. At present she could not be progressing more favourably. On Thursday morning her temperature was 98·5, and her pulse 72, and at no time since the operation has the temperature exceeded 99·4°.

ACCIDENTAL DISEASES OF WOUNDS.

In four recent numbers of the *Wiener Med. Wochenschrift* (Nos. 40, 41, 43, 44) there may be found an excellent contribution on the subject of diseases occurring accidentally in wounds, by Paneth and Rosanes. All the cases of accidental wound-diseases happening in Billroth's clinic during the years 1877-1881 have been collected. By means of numbers and charts the reader is presented with comparative tables of the relative frequency of such affections, and comparisons between the previous and the present series of years have also been instituted. During the last five years Listerism has been in vogue in the clinic, and iodoform has been employed in such cavities as the mouth, vagina, and rectum. We cannot go into the tables and statistics here collated, but must content ourselves with saying that

not only has the total number of accidental wound-diseases gradually and increasingly diminished during the years in question, but each disease (erysipelas, pyæmia, septicæmia, and the like) has been less frequent. There seems no reason to doubt that the success has been due to improved hygiene in the local treatment of wounds. We congratulate the authors on the appearance of so useful a piece of work.

DOCTORS OF MEDICAL SCIENCE.

THE French Minister of Public Instruction has recently issued a circular to the doctors of the medical faculties and schools, requesting them to seek the advice of their various counsels as to whether it would be desirable to create a new degree superior to that of Doctor of Medicine, to be termed Docteur ès Sciences Médicales. While leaving the discussion on the subject free and open to the profession and academic counsels, and desiring their opinion on the matter, the Minister observes that there are three points to be especially considered. 1. The utility of having above the doctorate of medicine, which is especially a professional degree, a superior degree indicating more complete and more scientific acquisitions, and more personal and more original studies. 2. What exigencies should be imposed on the candidates for the new doctorate beyond those already required for the doctorate of medicine? 3. In what way are the tests of the qualifications of the candidates to be settled? We will defer commenting on the project until its realisation is ascertained to be probable.

TUBERCULOSIS.

IN the *Revue de Médecine* for November, M. Hippolyte Martin has given the result of his numerous and long-continued experimental investigations on the subject of the destruction of tubercle by high temperatures and other means. The experiments were all performed in the laboratory attached to the Children's Hospital under the care of M. Parrot; antiseptic precautions were invariably adopted, and the hygienic surroundings of the animals after operation were the subject of close attention. In the commencement of the paper he remarks on the necessity of distinguishing between false and true tubercle, pointing out how close is the resemblance from an anatomical point of view, the difference between them being revealed by a series of inoculations, when true tubercle always gives rise to tubercle in passing from one organism to another, and false tubercle does not. From this fact he draws the conclusion that there must exist in the true or infectious tubercle some agent or living organism which communicates to it its infectious properties, and which can go on reproducing itself indefinitely when it finds a soil suitable for its development. "Tuberculosis," he says, "is, in fact, precisely similar to a parasitic affection, but the word 'parasite' presupposes a combination of vital conditions beyond which life is impossible. If there exists, then, a parasitic agent in tubercle, it ought to be possible to destroy it, in fact to kill it, and thus transform the tuberculous tissues into an inert matter deprived of any infectious property." He then goes on to say, "A mean temperature is one of the conditions most necessary for the manifestations of life. It is true that the resistance to differences of temperature is much greater when we study the lower animals or those of more simple organisation; but it is none the less demonstrated that this resistance has its limits, which are easily determined for any individual living organism. Starting from this fact, if we reverse the proposition, and if we prove that an organic disease-producing material suddenly loses all its active properties at a temperature which we know to be *fatal* to a certain variety of living agents, whose pathological properties resemble those which are manifested in this organic material, we tend to demonstrate, *ipso facto*, that this latter owes its active properties to the presence of some living ferment." He then details the experiments, from which we learn that when a tubercular mass is inserted into the body of an animal, having been previously subjected to a heat of at least 85 in a closed tube, it never gives rise to tuberculosis—*i.e.*, the tubercle has lost its infectious property. His own investigations lead him to the somewhat cautious conclusion that tubercle behaves as if it owed its activity to a living organism of that group, which is now considered to be the ferment or the parasite of many infectious diseases. After referring to the discovery of Koch, and the work of others in the same direction, he contends that the specific nature of tuberculosis, in which he himself firmly believes, has not yet been incontestably proved.

DR. JOHN BURDON-SANDERSON, F.R.C.P. Lond., F.R.S., Jodrell Professor of Physiology in University College, London, has been elected Waynflete Professor of Physiology in the University of Oxford.

THE Royal Commission on Metropolitan Sewage Discharge met at No. 11 Committee Room, House of Commons, on the 28th and 29th ult. Present: Sir Benson Maxwell, Sir John Coode, Colonel Ewart, C.B., R.E., Professor A. W. Williamson, F.R.S., Dr. De Chaumont, F.R.S., Dr. Stevenson, Mr. James Abernethy, F.R.S.E.; Dr. W. Pole, F.R.S., Secretary.

THE typhoid fever epidemic at Bangor has almost entirely disappeared. As a result of the extra expenses to which the town has been put, the local sanitary rate for the current half-year has been fixed at three shillings in the pound—nearly five times the amount it has averaged for many years past.

THE Colonial Medical Board report that small-pox is no longer epidemic in Capetown, and is palpably dying out in the Cape district; but it is still severe in the East African districts north of Delagoa Bay.

NEURALGIA OF THE FIFTH PAIR.—Dr. Vandenabeele reports that in Dr. Rothery's practice at the Hotel Dieu the treatment of this affection by ammoniacal sulphate of copper, as recommended by M. Féréol, had been found useful. M. Féréol employed it in obstinate neuralgias which had resisted numerous other measures, and presented all the characteristics of facial tic douloureux. In almost all cases the sulphate relieved the pain, and sometimes instantaneously, and restored sleep to the patient, who had been deprived of it for weeks. The usual dose was from ten to fifteen centigrammes, which was increased to thirty or even fifty, according to the susceptibility of the patient. The only inconvenience produced by these large doses arose from disturbance of the digestive organs, which ceased as soon as the medicine was suspended. M. Féréol also prescribed ammoniacal sulphate of quinine, ordering from ten to fifteen centigrammes with thirty of syrup of orange-flowers, a hundred grammes of distilled water, and giving a tablespoonful at meal-times. The medicine should be continued for a fortnight, and its action is more decided in proportion to the amount of congestion that exists.—*Jour. de Therap.*, October 25.

DIGITAL EXPLORATION OF THE BLADDER BY MEANS OF INCISION OF THE URETHRA IN THE PERINEUM.—This procedure, which Sir Henry Thompson has pursued in five cases of affection of the bladder in which the ordinary mode of exploration did not suffice, Prof. Volkmann states (*Centralblatt f. Chirurgie*, No. 4) that he has had recourse to in a certain number of cases since the year 1874. It has not been followed by febrile action even in old persons.

MEDICAL MATTERS IN PARLIAMENT.

HOUSE OF COMMONS—THURSDAY, NOVEMBER 23.

Sanitation in Dublin.—In reply to various questions asked by Mr. Sexton respecting the accommodation provided for the Crown witnesses, Mr. Trevelyan said he was aware of a report from the sanitary officer of the Drumcondra Town Commissioners to the effect that the Crown witnesses were most improperly accommodated; and that Dr. Nalty also reported to the same effect; but he had reason to believe that the sanitary condition of the city was not so bad as had been represented. Dr. Gibbs, the Medical Officer of Health for the district, and medical attendant at the houses in question, reported on the 15th inst. that there was little ground for a reasonable complaint against their sanitary state. Dr. Nedley, in his report, added with regard to the inmates—"Their food was, I have reason to believe, abundant and wholesome; they were comfortably clad, and looked contented."

Sickness on board the "London."—Mr. Cropper asked the Secretary to the Admiralty whether the hulk *London*, stationed at Zanzibar, had been reported as unsanitary, her timbers being rotten and leaky; and whether there had since been seven outbreaks of fever among the sailors stationed in the *London*.—Mr. Campbell-Bannerman admitted that there was for some time a good deal of sickness on board the *London*; but much had been done to improve her condition, and the latest reports showed a diminution in the amount of sickness. The whole question was under consideration by the Admiralty, and Rear-Admiral Sir William Hewett, the commander-in-chief on the station, had been directed to proceed to Zanzibar and inquire fully into the matter.

MONDAY, 27TH.

Scurvy in the Mercantile Marine.—In reply to a question as to what action the President of the Board of Trade was prepared to take in respect to Mr. Thomas Gray's report on the increase of scurvy in the mercantile marine, Mr. John Holms stated that the report had been sent to the various local marine boards for their observations thereon. Some replies have been received, but the matter was still under consideration by the Board of Trade.

TUESDAY, 28TH.

The Norwich Vaccination Inquiry.—Mr. Dodson, in replying to various questions asked by Mr. Hopwood on this subject, said, as to the first question, he must point out that certain quoted words from the report on the inquiry did not apply, as Mr. Hopwood supposed, to four cases that terminated fatally, but to four cases vaccinated from one child, and of which two did not get erysipelas. As to the second question, the public vaccinator was recommended for award from the Parliamentary grant in 1874, but not in 1876 or 1878, and he was again recommended in 1880, but the objectionable practice previously discovered by the inspector appeared to have been then discontinued. As to the third question, his answer was that, although Dr. Buchanan does charge Dr. Guy with using dirty instruments in 1876, he does not affirm that Dr. Guy did so at a later time. His answer to the fourth question was that it is no legal defence to a summons under the Vaccination Acts for parents of children attacked with erysipelatous disease after vaccination to urge their fear of similar risk to their other children; and he was not prepared to assent to the view that, because one child may have happened to suffer, owing to *mala praxis* or some accidental circumstance, all the other children should be deprived of the protection which vaccination affords. At the same time he would add that it is open to the justices in any such case to impose a nominal fine or decline to make an order for the vaccination of the child, and he should hope that whenever any such case occurs it will be considerately and tenderly dealt with.

KING'S COLLEGE, LONDON.—The Right Hon. Sir John Mowbray, Bart., M.P., D.C.L., has consented to preside at the annual dinner of associates and students, to be held in the College Dining Hall, on January 17, 1883. Gentlemen wishing to be present are requested to communicate with the Hon. Secretary of the Committee, Mr. H. Courtenay Luck, A.K.C., F.R.G.S., at the College.

MEMORANDUM
BY THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD, ON THE
PROBABLE ORIGIN OF ERYSIPELAS
AT THE
NORWICH PUBLIC VACCINATION STATION,
IN JUNE, 1882.

THE PRESIDENT,—It has become my duty, as Medical Officer of the Board, to comment on the occurrences at the Norwich Vaccination Station last June, with especial reference to the causation of erysipelas there, and to the precautions that may be taken for avoiding such disasters in future.

Dr. Airy, in the inquiry which the Board entrusted to him on July 11, found himself unable to establish the origin of the erysipelatous disease which he found to have attacked eight children attending the station; and he proposed to add to his usual methods of research a public inquiry, at which he might, perhaps, get further information that should throw light on this obscure question of the origin of the disease. It was thought well to give this public inquiry another and more formal character, but the object which Dr. Airy proposed to himself has been in a measure served.

Dr. Airy succeeded at the inquiry in eliciting the very important fact that the vaccination of children at the Norwich Station, nominally performed from arm to arm, has been habitually done by the intervention of "points." This fact had not been discovered by Dr. Airy in his earlier inquiries, and it appears to me to deserve the most particular consideration.

Ivory points are used at Norwich in the transfer of lymph from the arms of children brought for inspection to the arms of children brought for vaccination. The arm of the child to be vaccinated is first punctured or abraded with a lancet, and the point charged with lymph taken from the previously vaccinated child is then rubbed into the puncture or abrasion. This intervention of points is unnecessary in arm-to-arm vaccination, but some operators have a liking for it, and except for its introducing a new element, and therefore a new need for care, into the process, there is no objection to it, provided new ivory points are used in every such transfer of lymph. But a wholly different question arises if such ivory points are used over and over again.

The mere washing of points that have been charged with an albuminous matter will not invariably remove the whole of such matter from the end of the point; and, as a further precaution, the washed end of the point may be rubbed on sand-paper. But there must inevitably be particular occasions when, even in the hands of a habitually careful person, some portion of the cleansing processes will be overlooked or incompletely performed. The only safe rule in vaccination, therefore, is to consider an ivory point as a mere waste thing, only fit to be destroyed, after it has once been charged with vaccine lymph and put to its intended purpose. Unless this rule be observed, the destination of the dirty or imperfectly cleansed ivory point is to be used again on some future occasion. It will have been a simple affair of accident whether the animal matter remaining by chance on its end has been kept dry and harmless, or whether it has undergone decay and obtained the qualities of a septic poison.

The occasion on which an imperfectly cleansed point will be used, and on which it will, if its old retained lymph have become decomposed, do mischief to the child to whom it is used in the operation of vaccination, must, in the nature of things, be difficult of detection, and very close and detailed examination of all the circumstances will be wanted before the fact of its use on a given occasion can be discovered.

Dr. Airy, until the public sitting, was unaware of Dr. Guy's continued practice of using points in the transfer of lymph from arm to arm; he had believed that Dr. Guy had, in deference to previous objections made by himself as the Board's inspector, abandoned the practice; and, indeed, Dr. Guy, while operating in the course of Dr. Airy's last inspection, and in Dr. Airy's presence, had used his lancet, and not any point, in the process of transferring lymph.

In this way it has come about that very imperfect investigation has been made of the relation existing between Dr. Guy's practice of using the same points over and over again, and the occurrence of erysipelas at the Norwich Station in

June. At the public inquiry counsel were engaged in accusing vaccination as such, and in defending Dr. Guy from any charge of neglect of duty. They were not there to discover possible accidents incidental to faulty practices of Dr. Guy's. And after the public inquiry, the question, which is so difficult, whether on certain occasions dirty or imperfectly cleansed points were made use of, has not been further gone into. Yet, without investigation of this question, it is certain that the Board is without information of the facts concerning one potent condition out of those which may have produced erysipelas at the Norwich Station.

Dr. Airy, in his report, made jointly with Mr. Henley, on the results of the public inquiry, recognises the probable importance to the question of causation involved in Dr. Guy's practice with ivory points. The inspectors having reported that "no charge was brought against" Dr. Guy in respect of carefulness or skill in the performance of duty, go on to reprehend the practice of using points over and over again; saying, "though it was stated that the same points were not used twice in the same day, and that after every day's using they were carefully cleansed, yet it is evident that some risk of septic contamination attaches to the practice."

But there is much more than this to be said concerning the share that transfer points, repeatedly used, may have had in the misfortunes of the Norwich Station.

The cases of erysipelas occurring there in the practice of June last divide themselves into four which are referable to June 13, and four others (including one spoken of alternatively as erythema) referable to June 20 or later. In the four former cases the erysipelas began, without exception, on the vaccinated arm, and it commenced immediately after the operation. Of the four latter cases, the three that were definite erysipelas got the disease commencing at another part of the body, and all four cases got it a week or more after the operation (the erythematous case commencing after ruptnre of the vesicles); the four latter, moreover, all had the opportunity of contracting the disease from infected persons actually in attendance along with them at the time and place where they received infection. Viewed in connexion with the materials of vaccination, therefore, comparatively little importance can attach to the four later cases, and essential interest must attach to the four earlier cases only.

These four more important earlier cases were four children who came under operation in the second half of the sitting on June 13. Three of the four were infected on the occasion of their vaccination, one on the occasion of taking lymph from it. The last (Lambert) gave no erysipelas to the child who was vaccinated from it, and Lambert's five fellow-vaccinees had no erysipelas. The three infected on the occasion of their vaccination were vaccinated from two vaccinifers. Two of them, Threadkill and Tyler, were operated on from one vaccinifer, Percy Armes, along with two other children in whom no erysipelas was produced; and the third, Girling, was operated on from another vaccinifer, Wicks, along with five other children in whom no erysipelas was produced, and along with a sixth who did indeed contract erysipelas, but in whose case the disease probably dated from a later day.

According to the customary practice of medical inspectors, the distribution of disease would be studied for the light that the distribution could throw upon an obscure cause. Those four cases that are definitely referable to the events of the station on June 13 would particularly deserve to be interrogated for the discovery of some agent having a distribution corresponding to the cases; an agent, namely, that (1) had done its principal mischief at that one sitting, and that had come into operation in the middle of the sitting; that (2) could act independently on vaccinifer or vaccinee, but with a preference for the latter; that (3) could convey vaccinia and erysipelas together, or (always remembering the ability of one infection to supersede another) could convey erysipelas alone; that (4) could produce its effects upon children vaccinated from several vaccinifers; while (5) it could affect one or two only out of several children vaccinated from the same vaccinifer.

It is here that the detection made at the public inquiry of the repeated use of washed points comes to have its serious importance. Until this fact was elicited, there was no act or thing, having the same distribution as the cases of disease, that had been discovered. But now it is seen that septic matter may have been carried upon certain individual points and inserted unawares into the arms of certain individual children, producing erysipelas in those children and in no others. All that is required to account for occurrences that had previously been unintelligible is to believe that, in the middle of the sitting on June 13, a group of imperfectly cleansed ivory points came into use; that two of these were used to take lymph from Percy Armes, and were rubbed into the punctures on Threadkill and Tyler; that a third was used to take lymph from Lambert, and was rubbed into Lambert's arm; and a fourth to take lymph from Wicks to Girling, and was rubbed into the punctures on Girling's arm. This is literally all that is needful to account for the whole of the peculiarly obscure occurrences of June 13.

The inspectors in their joint report, after recognising the importance of their new observation, go on to give reasons why they do not think the children of June 13 got their erysipelas in this way. But, in their reasons, they appear to overlook the consideration which forms the principal ground on which the agency of transfer points claims to be regarded, viz., the independence of each single ivory point, its separate use, and its separate liability to be harmless or harmful. Their difficulties pass away with a little reflection.

1. They do not see how the child Percy Armes, who supplied lymph for the vaccination of four children, could himself have escaped injury from infective points applied so many times to his opened vesicles, while two out of the four children vaccinated with those points caught malignant erysipelas. The lymph of the child Armes, however, was a feeble lymph, failing to produce vaccinia in three out of the four children vaccinated with it; and feeble lymph is habitually copious. The taking of amply flowing lymph on two infected points is hardly likely to have been of any harm to the vaccinifer, though it injured the two children who had the points rubbed into the punctures or scratches on their arms.

2. The inspectors do not see how it could happen that the child Lambert should be infected in the act of taking its lymph, while the child Johnson vaccinated from it escaped. There is a discrepancy about the statement of the number of children vaccinated from Lambert. The mother says three, the register says one. Perhaps points were charged, as well as Johnson vaccinated; but the fact does not seem to have been ascertained. A clean point used to transfer lymph from Lambert to Johnson would not have given erysipelas to either of them. But an infective point afterwards used to take lymph from Lambert for the purpose of storage or of use elsewhere, and applied to Lambert's vesicles of no remarkable yield, might readily have injured Lambert. Inquiry does not appear to have been made about the subsequent use of any lymph taken from Lambert after the vaccination of Johnson; and the facts are important to be known.

3. The inspectors do not see how it could happen that Girling should be infected, while Wicks, the vaccinifer, escaped. So far as the escape of the vaccinifer is concerned, the case of Wicks resembles that of Armes. An infective particle upon a point used in the transfer of lymph may find its opportunity of mischief on the one or other child, though the vaccinifer must needs incur less risk than the vaccinee, into whose punctures the infective point is deliberately rubbed to get off adherent material.

The reasons alleged by Mr. Henry and Dr. Airy for not regarding the ivory points as the probable cause of mischief would have application enough if one were to consider each ivory point as just the same with its fellow in its qualities and in its mode of use. But it is the very liability (incidental to the repeated use of points) of one point to differ from another in essential conditions, that allows the employment of particular points to have been parallel to the occurrence of particular erysipelas. In the present case the two things have been parallel in a way that no other things are parallel.(a)

(a) To one coincidence, indeed, the inspectors do direct attention. They show that Percy Armes, who supplied lymph for the vaccination of Threadkill and Tyler who got erysipelas, and of Harvey and Coan who got no erysipelas (Harvey had some eczema in the second week), had not the common potency of vaccine in his lymph, for it produced no vaccine vesicles on Tyler, Harvey, and Coan. It is undoubtedly one coincidence worth observing, for the practice of the Norwich Station shows but rarely instances of failure. And it is indeed worth further examination with reference to the considerations of the text. Feeble lymph is often of

I do not profess to indicate the whole of the direction which might have been taken by inquiry proceeding, as I should have wished it to do, upon the recognition of Dr. Guy's practice of using old points; but I am sure it would have been well, among other things that might have been more difficult, to impound every ivory point in Dr. Guy's possession, and to examine each one of them (with distinction of what he indicated as having once been used) for evidence of that cleansing which he said he always gave to points after using, and for traces of foreign matter remaining on the surface of any point, and to put any such foreign matter to chemical and microscopical test. Of course it would not have been possible to recover particular points as they were used in the vaccination of particular children on June 13, yet there would have been, none the less, a significance in knowing the ordinary condition of points as employed by Dr. Guy and in examining the evidences of his habitual care. Dr. Airy, however, did not succeed in ascertaining the fact of points being used until the public inquiry, and it would seem that that inquiry has superseded the ordinary methods of investigation of the Medical Department. Dr. Airy was then concerned with Mr. Heuley in investigating a "complaint," and he did not return to study of the means by which the children may have got their erysipelas.

I may usefully add to this Memorandum what I know concerning the liability of points, used as Dr. Guy uses them, to retain foreign matters at their ends. Taking ivory points charged with a minute quantity of a chemical substance (choosing one that is easy of recognition and does not act on the ivory) to represent a chance foreign material remaining upon the point in practice, I observe one kind of ivory to differ much from another in the facility with which the substance can be removed by dissolving and wiping, and that one differs much from the other in the facility with which solid particles can be removed from the surface by rubbing or scraping.

Hence, in the case of a point which has been used in vaccination, the removal of the last trace of animal matter is probably not an easy business. Imperfect removal of such matter must needs, unless attention is specially paid to dryness, result in the decomposition of it, and that decomposition will produce a putrid material capable of producing disease in a child who has the point moistened (with vaccine or anything else) and rubbed into its arm.

Having this experience of the difficulty of completely removing all foreign matter from an ivory point, I further think it right to record what I know of Dr. Guy's habits of care over matters of the sort. At inspection of his vaccination work in 1876, it was found to be good in some respects, but Dr. Airy did not recommend him for award, owing to his use of dirty instruments in the processes of vaccination. Dr. Airy did not recommend him at the 1878 inspection, by reason of slovenliness in the selection of lymph. Then I find that Dr. Guy at the 1880 inspection, deferring to Dr. Airy's representations and operating in Dr. Airy's presence, avoided the use of any points in the transfer of lymph; and that he has subsequently resumed the practice, employing the same point over and over again. I find him, in view of this ostensible amendment, and on the strength of his vaccine scars being of good quality, of the kind that indicate good protection against small-pox, recommended for award from the Parliamentary grant. But when, after this, it occurred to the National Vaccine Establishment, in the hope of amplifying their customary store, to invite from Dr. Guy specimens of his lymph, a great majority of his tubes were found to contain blood, and were not sealed; the liquid contained in one tube was not coagulated by heat. The Establishment, of course, declined any dealing with Dr. Guy, and put Dr. Airy in possession of the facts, in preparation for his next inspection of Dr. Guy's station.

I must not allow this Memorandum to close without a suggestion for practical use arising out of the considerations submitted in it. The present instructions to vaccinators under contract direct that if lymph be stored on points, the lymph should be kept dry, the points being constantly well protected from damp, and the instructions further enjoin upon contractors to keep in good condition the instruments which they use in vaccinating. But I propose to add the specific instruction, "Never use an ivory point a second time, either for the conveyance or for the storage of lymph."

November 4, 1882. (Signed) GEORGE BUCHANAN.

FROM ABROAD.

THE BACILLUS TUBERCULOSIS.

PROF. HORATIO WOOD, after giving an account (*Philadelphia Med. Times*, October 7) of a demonstration of the bacillus at the College of Physicians, Philadelphia, by Prof. Whitaker of Cincinnati, who has been investigating the subject in Koch's laboratory, goes on to observe:—

"The physiological experiments of Koch are very significant and highly important, since they demonstrate that a disease in certain of the lower animals, strongly resembling the disease termed tuberculosis in the human subject, may be initiated by the introduction of tubercular products; and, further, that these tubercular products are much more susceptible of conveying disease than had been hitherto suspected by those who had simply studied consumption clinically. It can scarcely be claimed that they definitively prove that the bacillus in question is the sole cause of tuberculosis, especially in the light of recent experiments, which appear to demonstrate that a disease in all respects resembling true tuberculosis may be engendered in certain animals by the introduction of foreign and non-tuberculous substances. The only discernible difference between the true and the false tuberculosis is that one is communicable by inoculation and the other is not (*Revue de Médecine*, April, 1882); but such a remote refinement of a diagnosis is of little use to the clinician when confronted with an individual case of typical consumption. The distinction between a true and a pseudo-tuberculosis, which depends merely upon the transmissibility of the disease, will ever remain beyond the reach of the ordinary medical practitioner. It is also evident that it is only *certain animals* that may be made tuberculous by inoculation. A course of carefully conducted experiments made last year in the Pathological Laboratory of the University of Pennsylvania by Dr. Robinson (*Phil. Med. Times*, vol. xii., page 130) demonstrated that 'well-nourished animals do not become tuberculous, and that no cheesy lump can be produced in them,' and also that animals in which cheesy masses were not produced failed to become tubercular. Without pursuing the discussion, it appears that the present state of the question might be formulated as follows:—1. Inoculation with tuberculous products (bacilli?) will produce miliary tuberculosis in certain subjects. 2. Inoculation with products other than tubercular will sometimes produce a (pseudo?) tuberculosis clinically indistinguishable from the inoculated tubercle. 3. Some individuals are insusceptible to tuberculosis by either experimental method. It is of interest here to observe that in a microscopical study of the blood of tuberculous patients it has been found that there is marked disintegration of a greater or less number of the white blood-cells, the granular plastic contents of which tend to aggregate in masses in the circulation. Dr. Formad believes that those animals which are the most susceptible to tuberculosis have the smallest lymph-spaces; and in individuals with naturally large lymph-spaces it is difficult or impossible to initiate tuberculosis. Syphilis and scrofula cause in the offspring narrowing of the lymph-spaces, and hence create a special susceptibility to consumption."

THE GROWTH OF CHILDREN.

The last report of the Wisconsin Board of Health contains a paper on this subject by Dr. Peckham, teacher of biology in the Milwaukee High School, the material being derived from measurements taken among the public and private schools of that city of 125,000 inhabitants. The

peculiar physical characters, such as would be expected to affect the facility with which it could remove matter adherent to an ivory point. But for the rest there is little suggestive in the coincidence between failure and a case of erysipelas. Of the four to whom Armes supplied lymph, the one whose vaccination was successful suffered under disease; two of the three whose vaccination failed did not suffer under it. Then two other children who did get erysipelas on the same occasion had nothing whatever to do with Armes. Armes himself was affected by nothing but regular vaccine at any time. The problem requires something that children vaccinated from Armes had in common with a child vaccinated from Wicks, and having nothing to do with Armes; and in common also with a child who furnished lymph to another, and who also had nothing to do with Armes. The state of Armes personally can have had nothing to do with these other cases.

Boston Med. Journal (September 28) extracts the following summary:—1. The rate of growth in the two sexes is such that the boys are taller until the twelfth year, and heavier until the thirteenth; between thirteen and fifteen the girls are both taller and heavier. After the age of fifteen the boys excel the girls both in weight and stature. Girls nearly cease to grow when about seventeen years of age. 2. Children of *pure* American descent (*i.e.*, when both parents and grandparents are born in the United States) are taller than children of foreign-born parents, but, when compared in weight with children of German parents, are, on the whole, lighter. The greater height is largely due to difference in stock or race. 3. For the same reason, children of American parentage (*i.e.*, their parents born in the United States) are taller than those of German or Irish parents; and the Irish are taller than the German. 4. School-children in Milwaukee are taller than school-children in Boston. The weight of boys is also greater; but girls in Boston are very slightly heavier. The superiority in height is probably due to the less degree of density of population in Milwaukee as compared with Boston, the struggle for life not being so severe, and there are fewer urban disadvantages. 5. The height of American-born men is apparently more modified by the conditions accompanying density than by all other influences, race excepted. Urban life, as compared with rural life, tends towards a decrease of stature. The forces here referred to act at all ages from five years upwards. 6. The rate of growth of Germans is markedly modified by residence in this country through one generation. In intermarriage between Americans and Germans the offspring seems to take the height of the taller parent. 7. The growth of the body and of the lower extremities takes place in such a way that the length of the body of the girl is less than that of the body of the boy until the tenth year, and thereafter greater until the sixteenth. From fifteen to eighteen the bodies of girls grow only two inches, and the bodies of boys over four inches. The lower extremities are longer in girls at nine, and shorter at eleven, and from twelve to fourteen again longer. At fourteen the lower extremities of girls almost cease growing, while those of boys increase by four inches between the ages of fourteen and nineteen.

The Index-Catalogue.

All those who have had the opportunity of consulting this invaluable publication (and it is to be found in all our chief medical libraries) will be glad to peruse the following account of its progress, given in the *Boston Medical Journal* of October 8. To those of our readers who are not yet aware of the precise nature of the work, the title of which is at first somewhat puzzling, we may mention that it comprises first a catalogue of the library of the Surgeon-General's Office, United States, which, although only a few years have passed since its foundation, now ranks, owing to the indefatigability of Dr. Billings and the great resources placed at his disposal, with the largest medical libraries. Next it contains what is of the highest importance to every existing medical library in the world, viz., an almost exhaustive index of medical periodical literature. Those who have witnessed the thankfulness with which searchers in our periodical literature receive such comparatively trifling gifts as Neale's "Medical Digest," or the rare general indexes of some of the periodicals, are alone in the position to estimate the magnitude of the boon now being conferred. The long succession of patient (or impatient) toilers will henceforward be enabled to devote their time to more grateful labours than the turning over volume after volume in search of facts, which will now be recorded once for all time and everybody.

"We welcome with renewed pleasure (the *Boston Med. Journal* says) the third volume of the Index-Catalogue. It brings down—perhaps one might say it exhausts—the alphabet through D. Its author-titles number 9043, its book-titles 8572, its journal-articles 28,846; and, in addition, there are catalogued in this volume 1335 portraits under the heading 'Collection of Portraits.' Perhaps the most striking point about this volume is the very large space taken up by Asiatic cholera, which covers 148 double-columned large pages. Nothing could better illustrate the importance of this scourge, or the *rôle* it has played in the world's history. If the mere index of its literature, in which but a single line may be the representative of the largest volume, fills so many royal-octavo pages, who can give the exact number of pages covered by the original books and articles catalogued? How much of it is original work, and how much of it parasitic copying, no one will ever care to inquire. But after all this immense mass of material has been piled up, how much more do we know of the actual nature of the disease and the way to control it? Something of its natural history, undoubtedly, and something about its prevention; little about its actual entity and its cure. Cinchona and its derivatives of similar names cover five pages and a half. The clavicle shows its importance surgically by requiring six pages of the Index. Climate covers but five pages, and cold an equal number; cod-liver oil occupies the space of two pages only; coffee fills a little less space; colic takes up nearly nine pages; dropsy nearly the same space; dysentery about thirty pages; and dyspepsia about six pages. Few authors cover a page. Dzondi is one of the authors whose various writings fill nearly that space; Sir Astley Cooper hardly fills half a column. Everything which has been said in favour of this wonderful undertaking on the appearance of the first and second volumes might well be repeated over the third. Our admiration increases with the succeeding volumes. The first, second, and third volumes bear respectively the dates of 1880, 1881, and 1882. Our gratitude over their creation takes the form of a hope that the fourth volume will appear in 1883."

REVIEWS.

A Treatise on Surgery: its Principles and Practice. By T. Holmes, M.A. Cantab., Surgeon to St. George's Hospital. With 418 illustrations, chiefly by Dr. Westmacott. Third Edition. London: Smith, Elder, and Co. 1882.

The third edition of this excellent treatise has been called for, and appeared, within four years of the second—a proof sufficient in itself that it continues in favour with students. We say with students, without in the least implying that it is not used as well by the busy practitioner; but they are students chiefly, we believe, who make the most demand upon it. Probably, taking together all the schools in London and the provinces, it is the work most read nowadays by men preparing for the English examinations; and for this reason, that, whilst comprising the whole range of subjects "surgical," it gives a plain and practical account of each injury and disease, and of the treatment which is most commonly advisable, whilst it omits the minuter details of pathology, and but rarely enters into disquisitions on treatment or disputations as to the origin or causes of disease or injury. Though there is throughout sufficient evidence of the great personal experience of the author, the book does not teem and bristle with the vast collection of clinical facts, and great number of rare and exceptional cases which give the special point and character to another well-known modern text-book having an equally large and widespread popularity, though probably less used by students.

This third edition of Holmes does not differ in any marked degree from the second, though the author states in the preface that "where considerable changes have been recently sanctioned by general adoption, or where changes have been proposed which seem worthy of trial, I have endeavoured to accommodate my text to the state of what I believe to be the most trustworthy surgical opinion—trying, on the one hand, to avoid that blind eagerness after novelty which is, no doubt, one of the less admirable features of our profession at the present time; and, on the other, that equally blind opposition to all change in the practice which we were taught when young, which is so apt to distinguish men who are growing old. . . . The new pathological speculations with which the name of Koch is now chiefly associated are not, in my opinion, yet sufficiently proved or tested by experience to warrant their adoption as a basis of practice, interesting as they are. Before another edition of this work can be called for we shall be able, at any rate, to pronounce some opinion on this point, but at the present time I could say nothing that would not be more likely to mislead my readers than to guide them."

This was a most amiable decision, and shows a very real and just consideration for the students. It is worthy of all commendation. Would that the writers of text-books on all subjects would show the same forbearance. Would, too,

that examiners, whose duty it is to find out what the students know, and not to startle candidates with their own surpassing and surprising knowledge, always made a rule of following this admirable example.

The Idiot: his Place in Creation and his Claims on Society. By Frederick Bateman, M.D., F.R.C.P., etc. Crown 8vo, pp. 48.

It would be unfair to judge a lecture, delivered for a charitable purpose before a lay audience, by the severe canons of criticism that apply to professedly scientific works; and to say that this little *brochure*, with its quotations from Shakespeare, its scraps of Latin and Greek, its theological references, and its occasional bursts of fervid rhetoric, reads more like a charity sermon than a scientific work, is as much as to say that it is admirably adapted for the purpose for which it was originally written. Dr. Bateman should, however, have had more respect for the memory of his illustrious townsman, Sir Thomas Browne, the author of "Religio Medici," than to allow the printer to vulgarise him into Brown. One of the most important parts of the pamphlet is the announcement at the end that another edition of Dr. Bateman's work on Aphasia is in course of preparation.

The Teeth: How to Preserve them and Prevent their Decay. By S. H. Linn, M.D., D.D.S. London: Charles Griffin and Co. 1882. Pp. 74.

The author in the volume before us has tried "to afford a useful manual of reference for all interested in the treatment and preservation of the teeth." Practically, then, the book is addressed to all. He tells us in his preface, "the structure, functions, diseases, and treatment of organs which play so important a part in the human economy as the teeth, require a study quite as serious as any other special branch of medicine." We admire our author's enthusiasm for his art. The chapters that will be of most interest to the general public are, we think, those relating to the shedding of the temporary teeth, on irregularities of children's teeth, and on the preservation of the teeth. In these, and especially in the latter of them, many important truths are set forth. We were somewhat surprised, and we may add that we were disappointed, not to find any allusion to rickets or syphilis amongst the causes of the decay; for there is no point in connexion with the teeth in which the medical profession at large is so much interested as this relationship. The concluding chapter on artificial teeth contains some sound advice that most of us sooner or later may be glad of. We may add that the book contains several woodcuts, and two plates to illustrate the mode of production of caries by the *Leptothrix buccalis*.

Essentials of Vaccination. By W. A. Hardaway, M.D. Chicago: Jansen, McClurg, and Co. 1882.

In this little work—for it is a small octavo volume of less than 150 pages—the author has contrived to deal with almost all the important questions that arise out of this vast subject. The author is in favour of bovine virus as against humanised, and tells us that the former is used almost exclusively in America.

As regards the actual operation he says, "The chief points are to rub the lymph gently but thoroughly into the abraded surface, and above all to use it with a lavish hand. . . . My habit is to work the lymph into the wound until dry, and not leave the absorption to chance." As regards the number of punctures, he is in favour of at least three, or their equivalent in area.

In the last chapter he examines the objections to vaccination; his opinion on this subject is summed up in the following words:—"No one would wish to deny that vaccination, as ordinarily administered, has its drawbacks, and even its dangers; but compared with the millions of cases in which favourable results are obtained, and having in view the ends to be obtained, the disadvantages are most trifling."

We fancy that the anti-vaccinators (notwithstanding the skill which continued practice has given) will find it a hard matter so to distort the facts and statistics which Dr. Hardaway has brought forward, as to make them tell in favour of their own views. We think it an excellent little book.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(*From our Special Correspondent.*)

Glasgow, November.

The Medical Schools of Glasgow—The Question of the Compulsory Notification of Infectious Diseases: Meeting of the Medical Profession in Glasgow on the Subject.

The medical schools are beginning to settle down to work, which for a short time will be encroached upon by the Christmas holidays. The University is hardly up to its average in point of numbers; Anderson's College, on the other hand, has so far surpassed previous sessions; the Royal Infirmary School, with its new accommodation, has not come up to expectation,—the school is but young.

The subject which has been most recently under consideration here is the "Police Bill" in reference to the compulsory notification of infectious diseases. At the present time the working of the Act is—the health officer with a staff of officials is expected to find out every case of infectious disease, and at once remove such; and as medical practitioners we are called upon and expected to aid in the suppression of infectious diseases, and for this purpose we have received from the health officer certificate forms something after this fashion:—"I hereby certify that ———, aged ——, residing at ———, and suffering from ———, ought to be removed to hospital." Should the medical practitioner come in contact with such cases he fills up one of the forms, which is forwarded to the health officer; for this no fee is granted, but if the sanitary inspector for the district gives an order, it may be for one or a dozen cases in the same house, the medical man is entitled to the munificent fee of two shillings and sixpence, payable by the sanitary department at the end of the quarter, if an account for the same is rendered! The subject requires looking into and careful consideration, and the medical man giving a certificate should, under the circumstances, be adequately remunerated, even although he does not receive a special order beyond the certificate forms.

It is to meet the difficulties and prevent medical men generally from being burdened with fresh responsibilities, that a meeting of the medical profession of Glasgow and neighbourhood was held in the Faculty Hall, St. Vincent-street, on Friday afternoon, the 24th inst. The chair was taken by Dr. Scott Orr, the President of the Faculty. He said that the subject of notification of infectious diseases had occupied the attention of the medical profession for a considerable time, and last spring three separate Bills were brought into Parliament, two of which were applicable to Ireland; one of these was a permissive Bill, which allowed the medical man to report or not, as he felt inclined. At the time the Bills referred to were brought up, the question was fully discussed, and the unanimous feeling of the medical profession was that the notification of infectious diseases should be placed on the householder. Since then the Police Bill had been drafted, which the Town Council were now engaged in discussing, and which they seemed disposed to push forward with undue haste.

Dr. Fergus proposed the first resolution, to this effect:—"That this meeting of medical practitioners desires to record its support to the principles of compulsory notification of infectious diseases by the householder or head of the family in all cases in which the medical officer of health devotes all his time to the duties of his office." Seconded and unanimously agreed to.

Resolution II., by Dr. Duncan:—"That to enforce the duty of notification of infectious diseases upon the medical practitioner in attendance on such cases is against the interests both of the public and of the profession of medicine." Seconded.

An amendment was proposed by a gentleman to this effect:—"That this meeting approves of the principle of compulsory notification of infectious diseases by the medical practitioner as well as by the householder or head of the family; in fact, to have dual responsibility." Seconded; but on voting the motion was carried by a large majority, and justly so.

Dr. McCall Anderson proposed the third resolution—"That we, as medical practitioners, have always striven to check the spread of infectious diseases, and we now record our willingness to further aid persons affected by such disease, or their guardians, in performing this duty to the local authority in this matter, by furnishing them with written certificates as to the nature of their malady, provided that we be adequately remunerated for this additional service by the local authority." Seconded and agreed to.

A large committee was afterwards appointed to wait on the Town Council for the purpose of urging the necessity for modifying the draft Bill in accordance to the above resolutions,—we shall see with what result. All town councils are wise, and ours is no exception to the general rule, for in the multitude of council there is wisdom; and it is to be hoped that Dr. Anderson's resolution will arrest the attention of our wise men, and good come out of it. We shall refer to this subject again.

GENERAL CORRESPONDENCE.

THE OCTOBER RAINFALL.

LETTER FROM MR. H. COURTENAY FOX.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your issue of the 18th inst., at page 628, the rainfall at Yarmouth during October is stated to have been 5·48 inches. It may interest some of your readers to know that the amount measured at the Royal Observatory, Greenwich, during the same time was almost identical (5·4 inches), against an average for sixty-six years of 2·28 inches. Only four wetter Octobers have been recorded during this long period.

In the first eight months of the present year (with the exception of April and June) the rainfall was below the average, and the aggregate deficiency was exactly equal to the excess which we have received in October. Consequently, on the whole ten months (the September rainfall having been exactly normal in amount) the total of this fertilising element recorded at Greenwich has exactly equalled the average of sixty-six years. Such a conclusion may probably surprise most of us, for we seem more apt to regard excessive rainfall than the opposite condition of dryness.

I am, &c., H. COURTENAY FOX.

Stoke Newington, November 26.

TREATMENT OF FRACTURED RIBS.—I have sometimes seen great inconvenience arise from the use of a bandage pressing on both sides of the chest, and limiting the free play of the lungs. Straps of sticking-plaster, applied over the whole of the injured half of the chest from sternum to spine, allow the sound side to work without impairment, and are quite sufficient to give rest for the formation of callus.—*Assistant-Surgeon Chetah Shah* (*Indian Med. Gaz.*, October 2).

FEMALE CRIMINALS.—Dr. Mosher, Superintendent of the Massachusetts State Reformatory for Women, contributes a paper to the *Boston Med. Journal*, October 5, based upon four years' service in that institution, during which time there were 2196 women committed to the prison. The following are his conclusions:—1. Intemperance and unchastity are the two vices which fill our penal institutions with women. 2. The influence of these vices is detrimental to health of body, increasing its susceptibility to disease and lessening its recuperative power. 3. The diseases which follow as a direct result of these vices are syphilis, alcoholism, dyspepsia, rheumatism, and general anæmia. 4. Morbid conditions of body react upon the moral nature, increasing and perpetuating the tendency to criminality; hence the importance of careful medical supervision as a reformatory measure. 5. More ample provision should be made in all large cities for the isolation and thorough treatment of venereal patients of both sexes, either by the addition of special wards to the general hospitals, or by the establishment of hospitals for this class. 6. The women who commit high crimes (that is, burglary, arson, manslaughter, etc.) possess a more sensitive organisation than those who commit only offences against chastity and public order.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 21.

Dr. G. BUCHANAN, F.R.S., Vice-President, in the Chair.

THE minutes of the previous meeting were read and adopted.

CASE OF BROMIDE ERUPTION.

Dr. HORROCKS showed a patient (a little girl aged ten) who had suffered from epilepsy for two years. She came under his treatment at the Hospital in Queen-square, four months ago, and was put upon bromide of potassium, taking two doses daily of five-and-twenty grains apiece. A month ago she came to him with dull-red, tender swellings on the front of both shins, very closely resembling erythema nodosum. He ordered her some lotio plumbi for them. Later on some acne-like spots came out on backs of arms and forearms, but there were none between the shoulders, and it was this fact which had caused him to bring the case before the Society.

Dr. THIN remarked that not long ago he had published an account in the *Lancet* of a woman, aged twenty-four, who had been taking bromide of iron for some uterine affection, and had a rash upon her legs which some supposed at first to be syphilitic. The child which Dr. Horrocks had brought this evening reminded him very much of his own case. The diagnosis of such cases could generally be arrived at by a process of exclusion, even when there was no history. This commencement as a subcutaneous swelling had been described in several cases of iodide eruption.

Dr. RADCLIFFE CROCKER did not think the position of the rash in this case was so very rare; cases had been brought forward both by himself and by Dr. Barlow similar to it. He had recently had under observation a patient whom he had been treating with bromide of potassium, and who came one day with soft swellings, with pustular apices, on the chest and extensor surfaces of the arms and legs. He did not stop the bromide, but gave her some arsenic. When he saw her a week later there were large abscesses where the pustules had been.

Dr. HORROCKS, in reply, said that though he had seen some hundreds of cases of bromide rash during the last few years, he did not recollect any case where the eruption was not present between the shoulders.

Dr. THIN observed that in the case he had already alluded to the eruption was confined to the legs.

A NEW DISEASE OF THE LYMPHATICS.

Dr. GEORGE HOGGAN showed sketches of the leg of a boy, and microscopical sections taken from a small swelling seen on that leg, illustrating a hitherto undescribed form of disease. He had searched the literature of the subject extensively, but had not found mention made anywhere of a lymphatic nævus. He believed, nevertheless, that it was a very common complaint, and that it was in reality the early stage and predisposing cause of elephantiasis Arabum, of dilated lymphatics, and of angioma. There was one case recorded by Hebra and Kaposi, described as lymphangioma tuberosum, but he had some doubt as to whether it was really a case of disease of the lymphatic system, because, amongst other reasons, he noticed in the plate that all the lymph-spaces were circular; whereas, if the case had been a true lymphangioma, there ought to have been lymphatic vessels cut in every direction, instead of only in one. In his case, the tissue in which the lymphatic vessels were found was perfectly normal, the only change being the great increase in the number of lymphatic vessels. The patient was a little boy, aged nine years, who had on his right leg and ankle some small spots about the size of a split pea, almost colourless or a pale lilac, which became raised on pressure upwards along the course of the lymphatics. The patient was subject to attacks of great pain in the leg, and erysipelatous inflammation. These attacks of pain were followed by slight thickening about these little nodules. One of these tumours was excised and submitted to microscopical examination. He found the epidermis crowded with cells, which he took to be nerve-cells, probably a result of the inflammation. The whole dermic tissue was penetrated by lymphatic vessels,

instead of only the superficial layer; but it was especially noticed that they did not penetrate any nearer the surface nor any nearer the sweat-glands or hair-follicles than in the normal state, and he had arrived at this conclusion after injecting them under pressure with nitrate of silver. He would most emphatically contradict the statement that had recently been made, that minute lymphatic capillaries could be traced into the hair-follicle.

Dr. Pye-Smith asked Dr. Hoggan if there was any ground for believing that this condition was congenital.

Dr. Thin thought that Dr. Hoggan was very much to be congratulated upon his absolutely unprecedented success in the preparation of his specimens—they demonstrated beautifully that the growth was composed of a number of minute lymphatic vessels; but he was not prepared to admit that this was the first stage of elephantiasis. Some years ago he had had the opportunity of examining microscopically a specimen of elephantiasis, and he had arrived at the conclusion that not only was there obstruction to the return of lymph, but also transudation of lymph through the capillary walls, and the subsequent formation of this into an imperfect fibrous tissue, which was certainly not seen in Dr. Hoggan's case. The water-colour drawing reminded him very much of one by a Russian at Moscow, illustrating a very similar condition on the chest.

Dr. Hoggan, in reply, said he had been careful to avoid expressing any opinion as to whether the affection was congenital. He had no information one way or the other; the history was very imperfect, and he had unfortunately lost sight of the patient. He quite agreed with what Dr. Thin had said about elephantiasis, but he had not gone into the question, owing to want of time.

Sarcoma of Bladder and Prostate.

Dr. Samuel West showed a specimen of this disease. The patient, a man aged twenty-one, came under treatment for retention of urine. The bladder was distended, and a catheter had to be used. Ten days later he had hæmorrhage from the bladder. Ten ounces of nearly pure blood were drawn off with the catheter, and another ten ounces three hours later. Subsequently, clots of blood were passed, and two fleshy bodies, which, unfortunately, were not kept for microscopical examination. The rectum was examined three weeks before death, and no tumour discovered. The patient died of exhaustion one month after admission. At the autopsy a large tumour, soft and semi-diffluent, occupied the place of the prostate. It had a few hæmorrhages into it, and was composed of round and spindle cells. The rectum was flattened over it, and quite empty. The entrance into the bladder was dilated so as to admit the middle finger easily, and in it lay a polypus two inches long, attached by a long and narrow pedicle to the trigone of the bladder; part of this was discoloured, and from it hæmorrhage had clearly taken place. One large oblong mass, soft and cellular, similar in structure to the tumour in the prostate, arose from the right side of the base of the bladder. Several smaller pedunculated masses took origin in various parts of the base. The bladder was distended, and contained several ounces of altered blood; its walls were much hypertrophied. The ureters were both much dilated in their whole length, as well as the pelves of the kidneys. The kidneys were much enlarged—the cortical part opaque and cloudy, with numerous small abscesses, the largest as big as a barleycorn. The other organs were healthy. The interesting features of the case seemed to him to be the comparative youth of the subject, and the rapidity of the growth of the tumour. There was no doubt that the repeated hæmorrhage killed him, and this came from the tumour at the orifice of the neck of the bladder. Three weeks before his death no enlargement was made out in the region of the prostate, and in that short time the tumour grew so rapidly that it was as large as the bladder itself. He considered that the polypus in the bladder had existed for a long time, though it had given rise to no symptoms. The hypertrophy of the bladder and dilatation of the ureters did not admit of any other explanation.

Mr. Roger Williams thought that such growths as these usually occurred in older people. The great question was, were they malignant—*i.e.*, infective? He thought he could detect in the present specimen a thin capsule over the growth. He then showed the bladder of a boy with a small growth near the neck. The walls of the bladder were somewhat hypertrophied. He had not made any microscopical examination; it was a specimen in the Museum of the Middlesex Hospital, and he knew nothing of the history of the case.

Mr. Barker remarked that these growths in the bladder were nearly always characterised by being pendulous. He had quite recently seen a case in the post-mortem room at University College Hospital, where there were long polypoid growths in the bladder, which proved to be carcinomatous. There were secondary deposits in the liver and lungs. In another case a polypoid growth very like this one was found in the bladder, and it had spread back and invaded the sacro-iliac joints and both ossa innominata; it was a small round-celled sarcoma; there were no secondary deposits.

Syphilitic Gumma of the Heart.

Dr. Henderson showed this specimen. The patient, who had been a sailor, was brought to St. Mary's Hospital moribund, and died before any examination could be made. The history given was that he had always enjoyed good health, but that for two weeks he had complained of pain in the region of his heart. Whilst going to his work in the morning he had fallen down, but got up again, staggered, put his hand to his heart, and groaned. He was unconscious, and was taken at once to the hospital, as already described. At the autopsy, twenty hours after death, the spleen was enlarged, congested, and adherent in places to the abdominal wall. The liver showed a depressed fibroid scar in the right lobe, and thickening of the capsule here and there; the substance appeared normal on section. The heart weighed thirteen ounces and a half; the pericardium showed numerous minute yellowish granulations; similar granulations, somewhat straw-coloured, were seen on the endocardium of the left ventricle. In the anterior wall of this was a pinkish-grey, moderately firm mass, extending through the whole thickness of the wall, measuring an inch and a half long by two inches across. On microscopical examination, this mass was found to contain, from without inwards—first, a richly nucleated fibrous tissue; below this the muscular bundles could be seen separated by fibrous tissue; and deeper still, a layer composed almost entirely of numerous rounded cells. There was no sign of fatty degeneration. Some thickening of the intima of the minute arterioles could be recognised. He thought that the condition of the heart was probably allied to that found in cases published by Dr. Burney Yeo and Dr. Hilton Fagge. As regarded the question of syphilis, there were indurated nodular glands in the inguinal regions, and a scar in one groin. The microscopical appearances were those usually found in a syphiloma. He thought that the sudden death might be attributed to an obstruction of a branch of one of the coronary arteries, though he had not been able to demonstrate this.

Testis in Perineum.

Mr. Roger Williams showed a wax model of this condition in a boy aged two years. There was a swelling in the right inguinal region, extending down into the perineum to within half an inch of the anus. It was somewhat constricted, the upper part having all the characters of a hernia, the lower part evidently containing fluid. The right testicle could not be found. The history was that the right testicle had always been absent, though otherwise the scrotum was well formed, and that he had always had the swelling in the groin, which varied much in size at times. Shortly before he was seen, however, it became tense and painful, and he was therefore brought to the hospital. Attempts at reduction having failed, the lower part was tapped, and the upper part could then be easily reduced. The next day a painful swelling was recognised in the perineum on the right side, evidently an inflamed testicle, as the spermatic cord could be traced from it to the external ring. The application of ice relieved the pain and diminished the swelling. This displacement of the testicle was rare, but more common on the right than on the left side. The coincidence of congenital hernia was very unusual.

Rickets in a Baboon.

Mr. Sutton showed the bony skeleton of this case. The baboon had been brought into the Zoological Gardens when two months old, and had died at the age of six months. It had not been fed upon its mother's milk, but upon fruit, nuts, and boiled bread. The intervertebral discs were very large; the chondral ends of the ribs were distinctly swollen. The epiphysal cartilages were very much swollen; in the

femur, for instance, measuring ten millimetres instead of one. The head of the tibia too was much altered; and he had no doubt that, had the animal lived, it would have suffered from genu valgum. The periosteum was everywhere thick and succulent. The skull was thick, the bone soft and spongy, the inner table hard; the jaw and bones of the face were very thick—but it was to be borne in mind that they always were very thick in these animals. The teeth in the lower jaw seemed quite perfect.

The Spinal Cord in Canine Chorea.

Dr. Hadden showed some sections of the spinal cord under the microscope from a case of canine chorea. He reminded his hearers at the outset that chorea in the dog was a totally different disease from that in the human subject, inasmuch as the same spasm recurred over and over again; it was usually a sequela of distemper. The sections showed groups of lymphoid cells in the grey matter, mostly in the lumbar and lower dorsal regions; they were evidently emigrant leucocytes from some distended capillary, which could invariably be recognised in their immediate vicinity; there was no tendency to symmetrical arrangement. Some motor cells were seen, swollen and granular, with outlines rather indistinct. He referred to a paper by Dr. Gowers and Mr. Sankey in the *Medico-Chirurgical Society's Transactions*, vol. lx., in which very similar changes were described, but they had also found changes in the white matter. He quite agreed with them in thinking that these changes were the effect, and not the cause, of the disease. The fact that they were not constant was evidence in favour of this hypothesis.

Colloid Cancer of the Stomach.

Dr. Pye-Smith showed a recent specimen of this disease. The patient was a man aged sixty, who was first seen last summer, with cough, and swelling of one leg. Nothing definite could then be made out in the abdomen, though it was suspected that he was suffering from malignant disease. Later on, a small movable tumour appeared in the abdomen; and when he was admitted into Guy's Hospital, in October, an extensive tumour, which was believed to be retro-peritoneal, could be felt in the abdomen. The only clinical points worth noting were that the man had no hæmatemesis and very little vomiting. At the autopsy a large retro-peritoneal growth, as had been surmised, was found, which had become adherent to and gradually invaded the posterior wall of the stomach, projecting into its cavity; the surface was slightly ulcerated. The tumour had not only become adherent to the duodenum, but had even ulcerated into it; this probably had taken place only a short time before death. The lungs and liver contained many minute secondary nodules. On rough microscopical examination there was seen the typical alveolar structure, with nucleated cells of an epithelial character. But for the bloodless appearance, the growth would closely resemble the ordinary fungus hæmatodes. He called attention to the absence of hæmatemesis, which was so characteristic of this form of tumour.

Ulcerative Endocarditis.

Dr. F. Taylor exhibited a recent specimen of this affection. The patient was a plumber, aged twenty-six. Eleven years ago he had rheumatic fever; but was at work till four months ago, when he began to suffer from shortness of breath. Six weeks ago œdema appeared, and a fortnight later he was admitted into Guy's Hospital. He was then pale and puffy; there was very little cardiac distress; there was some fever; frequent micturition; urine abundant, albuminous; a loud double murmur was heard over the heart region. The post-mortem examination revealed extensive ulcerative endocarditis of the aortic valves, spreading to the mitral, and there was evidence of old endocarditis; the left ventricle was hypertrophied. The spleen was enlarged, and contained some infarcts. The kidneys were large, white, and their structure somewhat confused; the capsule of one was slightly adherent, and one of them contained an infarct. He thought the amount of nephritis an interesting feature in the case, and did not believe it could all be accounted for as the result of the heart disease.

Dr. Buchanan then announced that the forthcoming volume of the *Transactions* was upon the table, and that its unusual bulk was due to the insertion of a number of supplementary reports upon cases which had already been recorded in previous volumes of the Society's *Transactions*. He also announced that it had been decided by the Council that one evening in April should be devoted to the exhibition of specimens exemplifying the various pathological relations of diabetes.

The meeting was then adjourned.

THE CLINICAL SOCIETY OF LONDON.

Friday, November 24.

Joseph Lister, F.R.S., President, in the Chair.

The living specimens shown were the two patients illustrating Dr. Cavafy's cases of symmetrical congestive mottling of the skin—one of the patients the subject of Dr. Duckworth's paper on subcutaneous rheumatismal nodes; and a case of extreme rickety deformity, chiefly of the lower extremities, by Mr. Howard Marsh. Some excellent casts of the rheumatic nodules were exhibited by Dr. Duckworth; the elastic material and colour of which they were made gave a ludicrously natural appearance. This substance was composed of gelatine, French chalk, and some other constituents. An account of it was given by Mr. Bowlby at the Worcester meeting of the British Medical Association.

Symmetrical Congestive Mottling of the Skin.

In this paper Dr. Cavafy described two cases of a curious affection of the bloodvessels of the skin. The first was a young woman, aged twenty-two, who was first seen in March, 1882, when the condition had existed for three years. It began as a reddish mottling of the left shoulder, which gradually spread down the arm, and soon afterwards appeared on the right arm, the cheeks, and both thighs, gradually increasing in intensity. At the date of her first visit the skin of both cheeks was mottled with blotches and irregular rings and streaks of a bluish-red colour, most marked on the right side, not prominent, and covered by normal epidermis. Similar dull, bluish-red macule and irregularly confluent blotches and streaks, forming reticulated, annular, and gyrate figures, occupied the extensor surfaces of both arms and forearms, and the backs of the hands, being especially distinct over the left wrist. The front and outer surface of both thighs near the knee were similarly mottled, but in a much lesser degree. The blotches and streaks were not sharply circumscribed, and disappeared completely on pressure, leaving, in some spots, a delicate fawn-coloured pigmentation; the marking also disappeared from the arms when they were held up, and again returned when they were allowed to hang down. The neighbouring skin was normal in all respects. The girl's general health was perfectly good. She had had rheumatic fever a year before the mottling commenced, but the heart was unaffected; the only departure from perfect health was a liability to "dead fingers" and occasional dyspepsia. She continued to attend for a month, with no change in the state of the skin. The markings were always intensified by cold, never completely disappeared, and were throughout unaccompanied by pain, numbness, tingling, or any abnormal sensation. She was still in the same condition. The second patient was a healthy young woman, aged twenty-one, who had been under observation since August, and in whom the affection had existed eighteen months. It began over the ankles, and gradually spread to the legs and thighs; twelve months later the arms became affected, and quite recently blotching had begun on the waist; the face had remained free. The mottling was an almost exact counterpart of that in the first case, but more extensive, and of a deeper bluish-red colour over both legs and the front of the thighs, especially near the knees; it was situated on the extensor surfaces chiefly, but also extended slightly over on the flexor sides. The congestion was much increased by cold in this case also. The condition described was obviously due to venous stasis, or passive congestion of the skin, and appeared to be an exaggeration of the marbling often seen on the skins of children and young persons after exposure to cold; but in the cases related, although cold intensified the marbling, the congestion remained more or less evident at all times. It was probably due to a vaso-motor neurosis, but the share taken in its production by arteries and veins was not easy to apportion. The affection appeared to be quite harmless, and had not led to any changes except pigmentation, and

that only slightly; but the disfigurement, especially when the face was attacked, was considerable. The treatment employed had not influenced the condition in any way.

Dr. Stephen Mackenzie said that the cases were of great interest and of extreme rarity so far as he knew. He felt sure that Dr. Cavafy's explanation was correct. At first sight the cases looked like that pigmented skin due to the local action of heat; but these specimens were different from that in the points of disappearance on pressure and improvement in warm weather or hot temperature. Weir Mitchell had described a condition of vaso-motorial disturbance of the lower extremities, in which there were much congestion and great pain, but although the speaker had seen one of these cases, he did not think that they tallied with Dr. Cavafy's specimens.

Dr. Glover remarked that he had seen an elastic stocking do an immense amount of good in a most persistent case of purpura in the legs, and thought that Dr. Cavafy's patients might be benefited thereby.

The President had never seen a precisely similar condition; its perfectly symmetrical character pointed strongly to a neurotic origin.

Dr. Cavafy, in reply, thought that the circumstances of the eruption disappearing on pressure and on change of posture, and the presence of slight pigmentation, fully sufficed to take it out of the category of cutaneous lesions due to the action of heat; further, heat improved the appearance of the skin, as did also physical exercise, and the patients indignantly denied toasting themselves before the fire. The eruption was distinct from the affection described by Weir Mitchell in the fact that no abnormal sensation was felt, but it resembled the condition of local asphyxia due to spasm of arteries, and frequently described as "the fingers going dead." In the first case the patient had suffered from this phenomenon; the second patient, on being asked about it, said her fingers became numb at times, but never white. However valuable the elastic stocking might be, it would not be applicable to the face and arms.

Case of Lumbar Nephrectomy for Carcinoma.

Mr. James E. Adams said his patient was a male, aged thirty-nine, who had suffered from intermittent hæmaturia for two years, with pain in right loin. Latterly, profuse hæmorrhage from the kidney had occurred, leading to marked anæmia. Blood, pus, triple phosphates, and epithelium were detected in the urine. The disease was clearly located in the right kidney, but its exact nature was not certain. The operation was undertaken in order to explore, and if necessary to remove, the right kidney. By an incision parallel with the inner border of the last rib, the kidney was easily exposed, and found to be the seat of a new growth, which had increased its size to about double the normal. In order to extract the organ it was necessary to enlarge the incision upwards. The kidney was adherent to the peritoneum, and in separating it the serous cavity was opened. Owing to the size of the tumour, the ureter and vessels could not be tied separately, and so were encircled *en masse* by a whip-cord ligature. The peritoneal wound was closed with a catgut suture; the skin wound was freely drained. Antiseptic dressings were used. The hæmaturia ceased at once. The wound healed in a few weeks, but the patient gained no strength, and suffered much throughout from cough, and for these reasons was transferred back to the care of the physician, and died forty-four days after the operation, with effusion into both pleuræ. Plugging of the left renal vein, and numerous deposits in the other kidney, lumbar glands, and ribs, were found at the autopsy. The microscope proved the new growth to be a medullary carcinoma.

Mr. Clement Lucas remarked on the success of the case from a surgical point of view. It was a matter of rather frequent occurrence that the typical signs of a stone in the kidney were imitated by other renal diseases; pain and hæmaturia were by no means diagnostic of renal calculus. He had lately explored two kidneys. Lumbar incisions were made, and the renal substance progged to the depth of one inch and a half by a needle fixed in a wooden handle. There was no bleeding, and primary union followed in all cases. It was an error to think that such explorative procedures were attended with much risk; the danger would probably not be greater than would be involved in an incision in the calf of the leg. He urged physicians to resort more frequently to this surgical method of diagnosis, and he had no compunction in so advising, for the patients did not suffer unpleasant symptoms therefrom, and sometimes, indeed, seemed to be relieved thereby.

Mr. Golding Bird inquired in what manner the original incision was enlarged, whether vertically or transversely; and also whether Mr. Adams would have preferred the lumbar to the abdominal incision had he known the size of the tumour before operation.

Mr. Fowler also testified to the fact that such explorative proceedings were unattended with danger, by narrating a case under the care of Mr. Henry Morris, in which the punctures were made to ascertain the presence or absence of a renal calculus.

Dr. Douglas Powell did not think this exploratory method quite free from risk. The not finding the stone was satisfactory, so far as it went. But what then? Stones in the pelvis of the kidney might go on for many years, and then be discharged by the urethra or cut from the bladder. His experience was that small calculi are quite as distressing as large stones in the symptoms they cause; and yet it would be of great advantage if we had some means whereby we might make out the dimensions of a calculus. He illustrated his remarks by reciting a case.

Mr. Barker thought that the remarks of the last speaker really endorsed the views of the surgeons. He had operated on a child in the same manner as that described by Mr. Lucas, where the symptoms of renal stone were very decided; but no calculus was detected, although a number of acupunctures were made. The wound healed by first intention. The difficulties in diagnosis were very great. He thought that the advisability of nephrectomy would ultimately turn upon the point as to how much renal structure was destroyed. If the stone be small, there is almost no risk; but if it be large, and there have been much suppurative destruction of renal texture, then the whole complexion of the case was altogether changed.

Dr. Wilberforce Smith thought that the method of copious water-drinking might be made use of to diagnose between malignant disease and stone. If the latter were the disease, the symptoms were always relieved, so far as his limited experience went.

Mr. Warrington Haward had found great assistance in the prolonged examination of patients under the influence of an anæsthetic, which relaxed the abdominal muscles. By this means he had succeeded in feeling a renal stone, which was subsequently removed. Renal calculi were generally characterised by an irritable bladder, the increased frequency of micturition occurring quite apart from the presence of hæmaturia. This might be of value in differential diagnosis.

Mr. Howard Marsh bore witness to the fact that careful examinations conducted under chloroform-narcosis by competent observers might be of no avail in making out an enlargement of the kidney.

Mr. Adams replied that Mr. Lucas seemed to be at one with him. The wound was enlarged in a vertical direction at about right angles with the previous incision. He should certainly have used the abdominal section had he known the size of the tumour before operation. Dr. Powell seemed to think the surgeons too bold and rash, but it must be remembered that the patients operated on were in a wretched state of suffering that demanded relief; when this element in the case was wanting, he preferred not to operate even in a tentative fashion. He agreed with Mr. Barker's remarks about the deterioration of kidney-substance as greatly determining the course of action to be adopted. He was glad to have heard Mr. Marsh's experience of the inability to detect a large renal tumour even with the aid of an anæsthetic; and such difficulties could hardly be wondered at in fat subjects with thick belly-walls.

Subcutaneous Rheumatismal Nodes.

Dr. Dyce Duckworth related two cases. *Case* 1: S. C., aged twenty-four, domestic servant, came to St. Bartholomew's Hospital on account of painful swellings upon the right hand and knee. She had had no serious illness, no rheumatic fever, or chorea, but had suffered for eight years past with pains in the joints and limbs. Crackling in the larger joints was noticed. The nodules had begun eight months previously on the right hand, elbow, and knee; and were found to be quite subcutaneous, painful on pressure,

and attached for the most part to sheaths of the tendons or deep fasciæ. The fingers were knotty at the joints, and the right little finger was twisted outwards at the last phalanx (not as the result of injury). The first sound of the heart was found roughened and somewhat reduplicated. The urine was alleged to be occasionally thick. (The patient was exhibited, and casts of the right hand and knee were also shown.) In three months' time it was found that some of the nodules had grown larger, and that new ones had appeared. Signs of slight hypertrophy of the left ventricle of the heart were noted, and the first sound was rough and reduplicated at the apex. Treatment by cod-liver oil and iodide of iron and potassium had not proved of material service, and there were still some articular pains. The nodules ached more in damp weather. *Case 2*: E. L., aged nine, a school-girl, had suffered from pains in the feet, knees, and arms for two months, and at that time nodules were first seen on the ankles, elbows, and knees. The legs and hands were also swollen "as if dropsical." There was no history of chorea. Nodules of various sizes were found on the sheath of the extensor tendon, on the metacarpus, on the oleeranon, on the spine of a dorsal vertebra, on both patellæ, and on an external malleolus. The nose and finger-ends were clubbed. The cardiac physical signs indicated mitral regurgitation. In three weeks the nodules on the patellæ appeared larger. The child ceased attendance, and its parents could not be traced subsequently. A cast of one knee was taken at the first visit. *Remarks*: Both cases were well-marked examples of rheumatismal subcutaneous nodules. Both occurred in females, as is found to be the case in most instances. The nodules had persisted longer in the first case than had hitherto been previously noticed, fourteen months against five, and the age of this patient was more advanced than in most cases recorded. The heart was affected in both patients. All the points noted supported the previous observations of Drs. Barlow and Warner, as communicated last year to the International Medical Congress.

Mr. Lister considered it remarkable that such nodules had been but recently recognised, seeing how frequent they were now found to be. It was curious too that the heart should be affected, as these nodules were of a somewhat chronic nature. He did not know whether heart disease was always associated with the nodes or not.

Dr. Green related a marked case of non-painful nodules in a boy aged sixteen years, who was the subject of subacute rheumatism. Heart disease developed in the course of the history of the nodules.

Dr. Barlow stated that heart disease did not always go with these rheumatic nodules—they were sometimes associated with rheumatoid arthritis; nevertheless, when these nodules existed we should be on the *qui vive* for cardiac affection, and a case of a man the subject of subacute rheumatism was mentioned in illustration. Here a mitral murmur appeared and persisted. He connected the idea of heart disease appearing in the course of these chronic rheumatic affections by regarding the nodules as homologues of the fibrous new growths taking place in the cardiac valves, giving rise to vegetations not capped by fibrin.

Mr. Godlee asked what was the exact structure affected, and commented on a case which was sent to him at the East London Hospital for Children for ganglion in the palm of the hand, but which really was a sample of rheumatic nodules, and the small patient had mitral disease.

Dr. Barlow replied that these nodules were in connexion with the deep fascia, and that the French notion that they developed from the periosteum was not correct.

Mr. Barker asked for the latest period of life at which these nodes appeared, because he had been puzzled by what was probably a case of the kind in a woman over forty years of age.

Mr. Stokes related a case occurring in a patient forty-five years old, in which these nodules appeared at the close of an attack of rheumatism which was characterised by considerable pyrexia, and with no improvement by salicin treatment. The knots finally passed away. There was no cardiac disease.

Mr. Golding Bird thought these cases had a surgical aspect; they might cause thickening and contraction of the palmar fascia, and so lead to distortion of the fingers. A woman forty years of age was under his care with such a condition, which he relieved several times by iodide of potassium.

Dr. Duckworth replied, and awarded a tribute of praise to the clever, honest, and thorough work of Drs. Barlow and Warner on this subject. He also said that Mr. Parker had found that the nodules were composed of delicate fibroid tissue. The duration of the stay of these nodules varied; they might be found at any age, though far most commonly met with under the age of eighteen. Nothing surgically should be done for these nodes.

OBITUARY.

GEORGE GULLIVER, F.R.C.S., F.R.S.

As we briefly announced last week, this distinguished anatomist and physiologist died on Friday, the 17th inst., at his residence, Old Dover-road, Canterbury, in the seventy-ninth year of his age.

George Gulliver was born on June 4, 1804, at Banbury, Oxon.—"the very year," as he used to say, "when the Great Napoleon was threatening England with his army at Boulogne, and when there was the usual rejoicing on the birthday of King George the Third." He received his preliminary education from the Rev. William Woolston, B.A., of Adderbury, near Banbury, as, being a very sickly child, he was not sent far from home; and his life in that rural retreat imparted to him a love of brooks and green fields, hills and hedge-banks, for breezy downs and furzy commons, and song of birds, that ever remained with him throughout life. On the completion of his preliminary education he was apprenticed to Messrs. Jones and Wise, surgeons in extensive practice at Banbury, and soon commenced his "Catalogue of Plants" in that neighbourhood, and thus secured the early friendship of some distinguished people thereabouts and at Oxford. On the expiration of his apprenticeship, Mr. Gulliver went to St. Bartholomew's Hospital to pursue his professional studies; and there he quickly became a special favourite with both teachers and students. He was made Prosector of Anatomy and Curator of the Museum, under Abernethy, and he was surgical dresser to Mr. (afterwards Sir) William Lawrence, Bart. Abernethy proposed to Mr. Gulliver to act as Museum Assistant under Mr. Clift, Conservator of the Museum of the Royal College of Surgeons, but as no hope of advancement in the department could be held out to him, the kind proposal was declined; and, fortunately for science and the College of Surgeons, the appointment was accepted by Owen. Having completed his professional studies, Mr. Gulliver became a Member of the Royal College of Surgeons, June 2, 1826, but continued his duties in the Museum of St. Bartholomew's until May 17, 1827, when he was gazetted Hospital Assistant to the Forces. His subsequent steps in the Army were as follows:—June 12, 1828, Assistant-Surgeon to the Forces; July 23, 1829, Assistant-Surgeon to the 71st, or Highland Light Infantry Regiment; November 8, 1834, Assistant Staff-Surgeon at Chatham; September 1, 1837, Assistant-Surgeon to the Royal Horse Guards (Blue); and June 2, 1843, Surgeon to this regiment, from which he retired, and finally from the Service, in April, 1853. On arriving in Chatham with his regiment he was placed in charge of the Museum of the Army Medical Department at Fort Pitt; there he made many additions to the collection, wrote a great part of the catalogue of its contents, and originated a department of experimental physiology. After a course of subordinate duties besides at the General Hospital, the charge of its surgical division was assigned to him. Dr. John Davy, the brother of Sir Humphrey Davy, was then the Principal Medical Officer at Chatham. Then commenced that long friendship between those men of kindred taste and pursuits. Like Davy, Gulliver was a lover of angling, and together they enjoyed the sport in many parts of England, Ireland, and Wales. In Davy's charming work, the "Amicus," his "Angler and Friend" and his "Angler in the Lake District" referred to Gulliver.

Among Mr. Gulliver's patients at Fort Pitt was a man afflicted with inguinal aneurism—interesting as an early, if not the first, case in England of the successful employment of pressure in the cure; and again cured of popliteal. This man subsequently was under the care of Mr. Cæsar Hawkins at St. George's Hospital. In 1845, Gulliver completed his extensive series of experimental investigations concerning the buffy coat of the blood. Two leading, but opposite, views

on its cause then prevailed—the old doctrine of viscidity of the liquor sanguinis, and the later one, on the contrary, of its increased tenuity. The former was maintained by Wharton Jones and Herman Nasse; the latter by Hewson and John Davy. Gulliver's elaborate memoir on this subject, with all the experimental details, was read at the Royal Medical and Chirurgical Society, but refused a place in its *Transactions*. Subsequently it was published in the *Edinburgh Medical and Surgical Journal*, October, 1845, and translated in *Froriep's Notizen* and other foreign journals. When quartered at Windsor, during the different seasons, Mr. Gulliver made and completed many interesting observations on the stiffening of the muscles and the coagulation of the blood in animals killed by hunting—affording a perfect confutation of the doctrine of Hunter and his disciples on this question. In 1838, Mr. Gulliver was elected a Fellow of the Royal Society; and when the new charter was granted to the College of Surgeons he was one of the first honorary Fellows. The latter appointment gave offence to his (Mr. Gulliver's) senior officers in the Army, and they addressed the Director-General of the Army Medical Department, Sir James McGrigor, on the subject. He communicated with the Secretary of State, and that gentleman called on the Council of the College for an explanation, whereupon he was with all courtesy informed that such Members of the College as Mantell, Owen, Newport, Gulliver, etc., had been chosen for the fellowship in recognition purely of scientific merits, and that the Council would be happy to add others for the same reason as soon as their claims should become known to, and recognised as valid by, the Council. To this there was no rejoinder, and the matter dropped.

In 1843, in the unhappy and fatal duel between two officers of his regiment, Mr. Gulliver was induced to accompany one of them to the ground, greatly against his own wish and inclination, but in the hope that he might arrange matters between the disputants. Finding this to be hopeless, he essayed to leave the field, but was involved in the results of the hostile meeting. A coroner's jury found him guilty of murder as an accessory, and he was placed in the dock at the Old Bailey for trial, when the Attorney-General stated that as the principals in the matter were still at large and beyond jurisdiction, he could not hope to gain a verdict against Mr. Gulliver; and the prosecution was dropped.

In 1852, Mr. Gulliver was elected a member of the Council of the Royal College of Surgeons, an institution in the affairs of which he ever took the deepest interest, especially in the Museum and Library, serving as Chairman on both committees. To the officers of the College he was always most courteous and kind. But of one officer he used to say that when pursuing his inquiries on blood from the living and dead animals, being desirous of taking a single drop from some in the Gardens of the Zoological Society, he applied to the Council, of which he was then a member, to whom and the admirable honorary secretary (Mr. Ogilby) he was indebted for the kindness and intelligent liberality with which they helped his investigations. But there was one exception—an eminent anatomist, of great influence in the Society, who, much to the surprise of many, threw cold water on the investigations, chiefly by suggesting that taking blood from the animals (several of which were highly valuable) might be dangerous to them and unprofitable to the Society. But these objections became quite amusing when it was discovered that at the same time he was himself, without the Council's authority, taking blood from those very animals.

As Hunterian Professor of Comparative Anatomy and Physiology, Mr. Gulliver delivered an admirable course of lectures on his favourite subjects—to which he had devoted many years of hard work—viz., the Blood, Lymph, and Chyle; these lectures were published, with engravings, in the *Medical Times and Gazette*, 1862-63.

In 1863 he delivered the Hunterian Oration, which was published by the desire of the Council; one of the chief points on which he insisted was, that though Harvey had proved the life of the blood in a natural or physiological sense generally, Hunter had demonstrated it particularly by his researches on the vital endowments of the coagulable lymph, and that his merit in this respect was both eminent and original, neither affected by the supernatural revelations of the Holy Scriptures, nor by the admirable observations of Harvey. Some parts of this oration, it will be remembered, gave great offence to the friends of a living celebrity. Mr. Gulliver served for many years on the Council of the Zoological Society, and communicated to its *Proceedings* many papers, the greater number of them, including his elaborate Tables of Measurements, on the red corpuscles of the blood of vertebrates. He edited for the Sydenham Society a complete edition of Hewson's work, adding thereto a historical introduction and copious notes. He was the author of notes and appendix to the English version of "Gerbers' General and Minute Anatomy," also of notes to Dr. Willis's translation of Rudolph Wagner's "Elements of Physiology," and he contributed a large number of independent memoirs in the scientific and medical journals—particularly in the *Medical Times and Gazette*. Mr. Gulliver's observations on the blood were extensive, and often afforded original results, especially as to the size and structure of the red corpuscles in the vertebrate subkingdom, the coagulation and structure of fibrine, and formation of the buffy coat. He gave the most complete history yet known of the subject, and clearly proved the prevailing errors that had assigned to Mr. Hunter, and still later to Continental physiologists, the discovery of the coagulable principle of the blood. He was able to give some assistance to Mr. Power in some parts of the seventh edition of Carpenter's great work on Human Physiology, and contributed several memoirs on subjects of animal and vegetable anatomy to the scientific journals, and a chapter and two plates on Raphides and other Plant Crystals to the fifth edition of Dr Lionel Beale's "How to Work with the Microscope." Speaking of Dr. Beale, and rather disparagingly of the Germans, he says—"While dissenting from the conclusion which points to man as merely an advanced brute, it seems to me that the researches in England of such physiologists as Darwin and Beale are of more weight and originality than all the works together of the Germans in the same time and departments; and the same may be said of the physiological investigations of Claude Bernard and Brown-Séquard."

In 1864, Gulliver resigned his seat as a member of the Council, because he was not elected in due course to a seat at the Court of Examiners, and had been told by a steadfast friend on the Council that there was no chance of his being appointed an examiner as he was not a hospital surgeon. He was induced, however, to withdraw his resignation, and to present himself for re-election, in order to try whether the Fellows, as he said to the writer of this notice, would confirm "the unfair pretensions of the commercial and prevailing element of the Council, consisting of the metropolitan hospital surgeons, to continue the mercenary monopoly of the examinations, to the exclusion of those physiologists and surgeons whose lives had been less devoted to the mercantile branches of the profession." In July, 1864, the Fellows did eventually confirm the "offensive monopoly" by rejecting Gulliver after polling 106 votes, a number far larger than was afterwards recorded for Hawkins, Skey, Wormald, Kiernan, and other distinguished Fellows. The reader interested in the matter will find it noticed in the *Medical Times and Gazette*, 1864.

For many years Mr. Gulliver suffered acutely from gout, latterly of a very severe character, which all the skill of his devoted friend and medical attendant, Dr. Gogarty, Physician to the Kent and Canterbury Hospital, failed to arrest. For the last year or two he had had, in addition to the articular affection, bad attacks of pain in the stomach and occasional sickness, which tended much to weaken him. He had, moreover, from time to time, transient attacks of hæmaturia, unattended, however, with symptoms of an alarming nature. For a few days before his death he had had a good deal of pain in his arms. This got better; he passed a good night on Wednesday, and seemed better on Thursday morning, but about midday dyspnœa set in, and increased alarmingly. Dr. Gogarty telegraphed to Dr. Gulliver, who arrived about six, and found his father suffering much from dyspnœa, attended with great restlessness, and his pulse very weak. He was perfectly conscious, and remained so until within an hour of his death, at six o'clock on November 23.

The funeral of Mr. Gulliver took place on the 22nd ult., at Nackington, near Canterbury, and besides the immediate members of the family who attended were Colonel Horsley, the Rev. R. Gandy, Dr. Robert Boyd, his friend Dr. Gogarty, representatives of the East Kent Natural History Society, of which for many years he was vice-president and honorary secretary.

Mr. Gulliver leaves a widow and an only son. Dr. George Gulliver, M.A. Oxon. (taking a first-class B.A.), Assistant-Physician to St. Thomas's Hospital, who, inheriting his father's love of natural history, resigned his demonstratorship under Professor Rolleston, and went out as naturalist with the *Venus* expedition to Rodriguez, and received the thanks of the Royal Society for his services on that occasion.

WILLIAM PIRRIE, M.D., LL.D.

By the death of Dr. William Pirrie, Professor of Surgery in the University of Aberdeen, the North of Scotland has lost a man of conspicuous note—a man who will be missed by old pupils, friends, and patients, not only there, but over the length and breadth of Great Britain and the colonies. For the space of over half a century he has been a prominent teacher in the Aberdeen Medical School, and for a long period he has acted as Senior Surgeon to the Aberdeen Royal Infirmary, and carried on a large private practice. Nine months ago he was attacked by the illness which, after a short intermission, has brought about his death at the age of seventy-five; but until then Dr. Pirrie was in possession of his natural and unabated vigour, and even in autumn of the present year, as President of the Aberdeen Medico-Chirurgical Society, he delivered an address on recent views as to the pathology of tubercle, which showed both his usual vigour and fluency, and also his ready faculty of keeping abreast of the advances in medical science.

Dr. Pirrie was a self-made man. The son of a small farmer in Aberdeenshire, he received his early education in one of those parish schools to which Scotland and Scotchmen generally owe so much. Leaving his native village, he continued his education in the Grammar School of Aberdeen and at Marischal College, where, having graduated in arts, he commenced the study of medicine, finishing his curriculum in Edinburgh. At the age of twenty-one he took his surgical diploma in Aberdeen, and in 1820 he graduated M.D. in Edinburgh. The stimulus of an enthusiastic teacher has much to do in moulding a man's after-life, and to that teacher one looks back with a species of hero-worship, which is both pleasant to see and pleasant to feel. Dr. Pirrie's hero was his Edinburgh teacher, Liston, and all old pupils will remember the glowing terms in which he described that eminent surgeon's technical skill and surgical acumen. This admiration gave him his bent, and having spent a year under Velpeau and Dupuytren in Paris, the young medical graduate set himself earnestly and enthusiastically to the study and practice of surgery. In 1830, Dr. Pirrie was appointed Lecturer in Anatomy and Physiology in Aberdeen, a position he retained for ten years, thereby acquiring that almost instinctive familiarity with anatomy which makes the bold and successful surgeon. In 1840—now extensively engaged in practice—he was elected Professor of Surgery in Marischal College, a chair which he resigned only last autumn, having filled it for the long period of forty-two years. As teacher, author, and surgeon, Dr. Pirrie holds high rank. As a teacher he was most painstaking and enthusiastic. He took an intense pleasure in the work, each session being commenced with a vigour and impetus that seemed to have been accumulating strength in the interval. While possessed of considerable rhetorical powers, Dr. Pirrie subordinated everything to the primary purpose of making certain that he was understood. His lectures were eminently demonstrative, and the museum of instruments and preparations attached to the class and collected by his efforts is probably one of the most complete in this country. His lectures and demonstrations on the great subjects of fractures and dislocations, hernia, aneurism, and urethral surgery were most thorough and complete, all apparatus, etc., being shown and applied on the living body before the class. As a writer Dr. Pirrie's reputation will undoubtedly rest chiefly on his "Principles and Practice of Surgery," which has gone through three editions in this country, and five in America. It contains much carefully recorded experience in all the great departments of surgery. Dr. Pirrie was intimately acquainted with the history of surgery from the earliest times, and had taken considerable pains to make his knowledge on this point complete. As a practical surgeon, Dr. Pirrie held for a long period the first place in the North of Scotland. His practice was a most extensive one, and his vigour was the envy of many of his younger colleagues. Astir by five or six o'clock every morning, he managed to accomplish an extraordinary amount of work, and yet never neglected, for the sake of private practice, either his professorial or other duties. His position as Surgeon to the Royal Infirmary gave him an opportunity of illustrating in the wards his systematic lectures. From the first suggestion of the system of acupressure of arteries Dr. Pirrie adopted it, and in conjunction with his colleague, Dr. Keith, he published a treatise on the subject. With simple dressing, and a scrupulous attention to details, the results of his excisions and amputations were extremely good, it being the rarest thing possible for them not to heal by first intention.

Dr. Pirrie was elected an honorary member of the Clinical Society of London—an honour which, it is stated, was shared at that time by only one other medical man in Scotland, namely, the late Sir Robert Christison. In 1877 he was appointed Surgeon in Scotland to His Royal Highness the Prince of Wales, and some years ago the University of Edinburgh conferred upon him the degree of LL.D. To Dr. Pirrie the University of Aberdeen owes much. He has always taken an enlightened interest in its welfare and progress, and it is to him in directly that it owes the recent foundation of its Chair of Pathology. Sir Erasmus Wilson, the donor of the munificent gift which endowed the chair, is a native of the same district as Dr. Pirrie, and they have been life-long friends. As a man Dr. Pirrie was possessed of many estimable qualities. He took a warm interest in his students, and was much pleased at all times to hear of their after-careers. His busy life and grave dignified manner may have prevented his being so well known as he might have been, but to those who came in close contact with him he was most kind and affectionate, and to his patients generally he was the subject of deep love and admiration.

Three of Dr. Pirrie's sons are members of the medical profession, namely, Dr. William Pirrie, of Bournemouth; Dr. George Pirrie, of the Indian Army; and Dr. Gordon Pirrie, of Aberdeen. We are sure that many an old pupil, on seeing the intimation of his death, has felt deep sympathy with his family in their great loss.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 23:—

Cunnington, Cecil William, Bartholomew-road, Kentish Town.
Fessett, Alfred Freeman, Leyton, Essex.
Serjeant, George, Lewannick, Cornwall.
Tireman, Arthur Lumley, Howden, Yorkshire.

Omitted on November 16:—

Dalton, Arthur John, Albert-road, South Norwood.

The following gentlemen also on November 23 passed their Primary Professional Examination:—

Hurstable, Arthur Edwin, Charing-cross Hospital.
Phillips, Ernest William, Guy's Hospital.
Roosmale-Cocq, Frederick Owen Y., University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

BEATLEY, WILLIAM CRIPPS, M.B. Durh., M.R.C.S., L.S.A.—Resident Medical Officer to Charing-cross Hospital.

BICKLE, L. W., L.R.C.P., M.R.C.S.—Non-Resident House-Physician to St. Thomas's Hospital.

COOPER, G. F., M.R.C.S., L.R.C.P.—Assistant House-Surgeon to St. Thomas's Hospital.

FELL, W., M.A., M.B. Oxon., L.R.C.P., M.R.C.S.—Assistant House-Physician to St. Thomas's Hospital.

HAIG-BROWN, C. W., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital.

JONES, D. LLEWELLYN, M.R.C.S.—Resident Assistant Surgical Officer to Charing-cross Hospital.

JONES, WANSBROUGH, M.A., M.B. Oxon., M.R.C.S.—House-Physician to St. Thomas's Hospital.

MARLOW, F. W., M.R.C.S., L.S.A.—Ophthalmic Assistant to St. Thomas's Hospital.

SUTTON, S. W., M.B. Lond., M.R.C.S., L.R.C.P.—Resident Accoucheur to St. Thomas's Hospital.

TREASURE, W. B. C., L.S.A.—Resident Assistant Medical Officer to Charing-cross Hospital.

WELLS, A. E., M.B. Lond., M.R.C.S., L.R.C.P.—House-Physician to St. Thomas's Hospital.

WHITE, E. F., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital

WIGAN, CHARLES A., M.R.C.S., L.S.A.—Resident Obstetrical Officer to Charing-cross Hospital.

WILSON, SAMUEL BARGRAVE, M.R.C.S., L.S.A.—Resident Surgical Officer to Charing-cross Hospital.

BIRTHS.

DOUGLAS.—On November 24, at Newbury, the wife of W. T. Parker Douglas, B.A., M.B., of a son.

GANDY.—On November 23, at Hill Top, Gipsy Hill, S.E., the wife of William Gandy, M.R.C.S., of a daughter.

GRELLET.—On November 25, at Hitchin, Herts, the wife of Charles John Grellet, M.R.C.S., of a daughter.

GRIFFITH.—On November 28, at 34, St. George's-square, Belgravia, the wife of G. de Gorrequer Griffith, L.R.C.P., M.R.C.S., of a son.

ILES.—On November 23, at Watford, the wife of Wilson Iles, M.D., of a son.

MACSWINEY.—On November 16, at Corradino, Malta, the wife of Surgeon-Major MacSwiney, M.D., Army Medical Department, of a son.

WEST.—On November 25, at 15, Wimpole-street, W., the wife of Samuel West, M.A., M.B., M.R.C.P., etc., of a daughter.

MARRIAGES.

BRUNT—STEVENS.—On November 21, at Southsea, John Brunt, Surgeon R.N., H.M.S. *Jaunount*, to Lydia Katherine Cole, only daughter of the late Charles Henry Stevens, Esq.

DAVIDSON—BABER.—On October 28, at Colombo, Ceylon, Walter Edward Davidson, C.C.S., to Lillie Harriet, daughter of John Baber, M.D., of 34, Thurloe-square, South Kensington.

HARRISON—HEDLEY.—At Hanover-square, Alfred Horatio Harrison, Associate of King's College, son of Charles Weightman Harrison, Esq., C.E., late of Larkfield Lodge, Richmond, to Mary, daughter of the late John Howarth Hedley, M.D., M.R.C.S., late of Newcastle-upon-Tyne and Gateshead.

MEATES—EMERY.—On November 18, at Langham-place, W., Arthur Edmund, fourth son of William Clapham Meates, L.S.A., to Venetia, widow of the late Samuel Anderson Emery, Esq.

MOLLIN—FISCO.—On November 28, at the Church of Our Lady of Seven Dolours, James Mollin, M.A., M.D., etc., to Annie, widow of the late Eusebio Fisco, of Rome.

POPPELWELL—LEWIS.—On November 23, at Harrogate, George Bell Poppelwell, Brigade Surgeon, Army Medical Department (retired), to Ann, widow of Samuel Lewis, Esq., of Rowley Regis, Staffordshire.

ROBERTSON—FRASER.—On November 21, at Tornaveen, Aberdeenshire, Douglas Argyll Robertson, M.D., F.R.C.S., of Charlotte-square, Edinburgh, to Frances Garden Carey, youngest daughter of Wm. N. Fraser, Esq., of Tornaveen.

SMITH—CHAMPNEYS.—On November 26, at Stepney, Dr. Frederick A. A. Smith, son of Dr. Smith, Portland House, Cheltenham, to Anna Maria Mundell, only daughter of Alexander Mundell Champneys, M.R.C.S., of Hunbury-street, London.

STUART—AINSLIE.—On November 21, at Edinburgh, T. P. Anderson Stuart, M.D., Professor of Anatomy in the University of Sydney, to Lizza, third surviving daughter of Archibald Ainslie, Dodridge, East Lothian.

DEATHS.

BARRATT, ELIZA NINNIS, wife of Edgar Barratt, M.D., of 46, Grand-parade, Brighton, at Portreath, Cornwall, on November 22.

BUCKLEY, T. M., M.D., C.B., Brigade-Surgeon A.M.D., at Lorne House, Upper Norwood, on November 23, in his 53rd year.

BRAID, JAMES, M.D., at Lawuswood, Burgess Hill, Sussex, on November 22, aged 60

BUCKLE, JOHN, M.R.C.S., of Great Bardfield, Essex, on Nov. 19, aged 26

CROSS, RICHARD, M.D., F.R.C.S., J.P., at Carlton House, Scarborough, on November 18, aged 64.

CROWTHER, ELIZABETH ROSALINE, wife of Edward L. Crowther, M.D., at Hanby Villa, Hobart Town, Tasmania, on October 1.

GIBSON, CAROLINE TERRINGTON, eldest daughter of Henry Gibson, M.R.C.S., of Kingston-upon-Hull, at St. Buleaux Cottage, Saltash, on Nov. 24.

PEARSON, FRANCIS, Deputy Surgeon-General Bengal Army (retired), at 17, St. Luke's-road, Bayswater, on November 20, aged 56

PIRRIE, WILLIAM, M.D., LL.D., Emeritus Professor of Surgery in the University of Aberdeen, and Surgeon in Scotland to H.R.H. the Prince of Wales, at 253, Union-street, Aberdeen, on November 21.

RENDELL, META ALICE, only daughter of Surgeon Major Rendell (half-pay, late 13th and 55th Regiments), at 10, Penlee, Stoke, Devonport, on November 22, in her 16th year.

TREWMAN, GERALD GEORGE RASHLEIGH, infant son of Surgeon George Turner Trewman, M.B., Army Medical Department, at Tyntagel, Woolston, Hants, on November 21.

WORRYS, T. S., M.R.C.S., L.S.A., at 203, Blackfriars-road, on November 23, aged 45.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession

BRADFORD INFIRMARY AND DISPENSARY.—House-Physician. Salary £100 per annum, with board, residence, and washing. Candidates must be registered as legally qualified medical and surgical practitioners. Applications, stating age, with copies of recent testimonials as to moral character and professional ability, to be sent to W. Maw, Secretary (endorsed "House-Physician"), on or before December 6. The election will take place on December 15.

BRIXTON, STREATHAM, AND HERNE-HILL DISPENSARY.—Resident House-Surgeon. (*For particulars see Advertisement.*)

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, W.C.—Ophthalmic Surgeon. (*For particulars see Advertisement.*)

ST. JOHN'S HOSPITAL FOR SKIN DISEASES, LISTER-GARDEN, W.C.—Assistant-Physician and Assistant-Surgeon. Applications, with copies of testimonials, to be sent in on or before December 4.

ST. PETER'S HOSPITAL FOR STONE, HENRIETTA-STREET, COVENT-GARDEN, W.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to be sent to the Secretary on or before December 9. The appointment will be made on December 14.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. (*For particulars see Advertisement.*)

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary £80 per annum, with board, residence, and washing. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, etc., enclosing diploma and certificate of registration, with testimonials, to be sent to the Honorary Secretary, William Bache, Esq., Churchill House, West Bromwich, on or before December 9.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Physician. Salary £100 a year, with board, washing, and lodging. Candidates must be graduates of a British university, or be possessed of such medical qualifications as are satisfactory to the Medical Committee and the Weekly Board. Canvassing disqualifies. Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received not later than December 4. The election takes place on December 12.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON. House-Surgeon. Salary £100 a year, with board, washing, and lodging. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and be possessed of a medical qualification. Canvassing disqualifies. Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received not later than December 4. The election takes place on December 12. Any further information may be obtained on application to Mr Newnham, Hon. Secretary to the Medical Committee, King-street, Wolverhampton.

YORK COUNTY HOSPITAL.—Honorary Physician. Candidates must be graduates in medicine of one of the universities recognised by the Medical Council, and Fellows or Members of the Royal College of Physicians of London, or Fellows of the Royal College of Physicians of Edinburgh, but no candidate shall be eligible who practises or is connected in partnership with anyone who practises surgery, pharmacy, or midwifery. Applications, with diplomas and testimonials, to be forwarded to Robert Holthy, Secretary, on or before December 8. The election will take place on December 12.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Auckland Union.—The office of Medical Officer for the Whitworth District is vacant: area 11,630; population 15,2 6; salary £110 per annum.

Cheltenham Union.—Mr. John Moore Walker has resigned the Third District: salary £60 per annum.

Towcester Union.—The office of Medical Officer for the Blakesley District is vacant: area 1105; population 1881; salary £60 per annum.

APPOINTMENTS.

Bristol Incorporation.—George G. D. Willett, M.R.C.S. Eng., L.S.A., to the Second District.

Chorlton Union.—Alexander H. Guest, L.F.P.&S. Glasg., L.R.C.P. Edin., to the Hulme District.

Hackney Union.—Thomas C. Barlow, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Lond., to the Third District.

Lichfield Union.—John S. Gettings, L.R.C.S. Edin., L.S.A. Lond., to the Ogley Hay District.

Lincoln Union.—A. L. Pennock, M.R.C.S., L.S.A. Eng., to the First District and the Workhouse.

ROYAL COLLEGE OF SURGEONS.—At the half-yearly examination for the Fellowship, on the 23rd, 24th, and 25th ult., there were sixteen candidates to whom the following questions on Pathology, Therapeutics, and Surgery were submitted (when they were required to answer all four questions between 1.30 and 5.30 p.m.), viz.:—1. What do you understand by the term organisation of blood-clot? Describe fully the process to which, in your opinion, the expression may be applied. 2. Describe the causes, and discuss the treatment, of secondary hæmorrhage after amputation through the middle of the thigh. 3. What are the diseases to which the thyroid gland is liable? Give their diagnosis and treatment. 4. Describe the various surgical affections consequent on loco-motor ataxy and their diagnosis.—It is stated that nine gentlemen only passed. Their names cannot be published until submitted to the Council at its next meeting for confirmation.

CHECKING HÆMOPTYSIS.—Dr. Post writes to the *New York Med. Record*, October 28:—"In a recent number of the *Record* is an article entitled 'A Simple Means of Checking Pulmonary Hæmorrhage with Shawl-Straps.' For more than thirty years I have been in the habit of arresting internal hæmorrhages by bandaging the arms and thighs so as to shut off from the general circulation a very considerable portion of blood in the veins of the extremities. The practice did not originate with myself, but I cannot refer to the source from which I obtained it."

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 25, 1882.

BIRTHS.

Births of Boys, 1852; Girls, 1357; Total, 2709.
Corrected weekly average in the 10 years 1872-81, 2597·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	885	816	1681
Weekly average of the ten years 1872-81, corrected to increased population ...	878·6	852·9	1731·5
Deaths of people aged 80 and upwards			68

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669823	...	11	2	4	3	...	7	...	2
North ...	905947	2	19	18	3	4	1	2	...	3
Central ...	252438	...	9	3	1	...	5	...	...	3
East	692738	...	12	21	2	6	1	6	1	1
South ...	1265927	...	13	15	6	7	...	9	...	8
Total	3816483	2	64	59	16	21	2	29	1	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·313 in.
Mean temperature	44·7°
Highest point of thermometer	55·1°
Lowest point of thermometer	33·3°
Mean dew-point temperature	40·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·46 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Nov. 25, in the following large Towns:—

Cities and Boroughs.	Estimated Population, to middle of the year 1882.	Births Registered during the week ending Nov. 25.	Death Registered during the week ending Nov. 25.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week	Temperature of Air (Fahr.) Lowest during the Week	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2709	1681	22·5	55·1	33·3	44·7	7·06	0·46	1·17
Brighton	108595	56	43	20·5	53·0	34·0	44·1	6·72	0·74	1·88
Portsmouth ...	129916	84	69	27·7	...	...	...	...	...	...
Norwich	88821	64	36	22·9	...	...	...	...	...	...
Plymouth	74147	47	40	28·0	55·0	38·2	47·0	8·33	1·07	2·72
Bristol	210134	134	104	25·8	56·1	32·1	44·2	6·78	1·14	2·90
Wolverhampton ...	76756	54	23	19·7	55·8	30·2	41·9	5·50	1·08	2·74
Birmingham ...	408532	270	211	26·9	...	...	...	...	...	...
Leicester	126275	77	55	22·7	54·0	31·5	42·7	5·95	0·63	1·60
Nottingham ...	193573	116	81	21·8	53·8	25·1	42·0	5·56	1·15	2·92
Derby	83587	62	38	23·7	...	...	...	...	...	...
Birkenhead ...	86582	77	33	19·9	...	...	...	...	...	...
Liverpool	560384	392	257	26·7	54·9	33·7	44·0	6·67	1·90	4·83
Bolton	106767	53	30	14·7	52·5	29·2	41·5	5·28	3·11	7·90
Manchester ...	349211	195	158	24·2	...	...	...	...	...	...
Salford	184604	123	76	21·5	...	...	...	...	...	...
Oldham	115572	70	64	28·9	...	...	...	...	...	...
Blackburn	106460	68	53	26·0	...	...	...	...	...	...
Preston	97656	66	47	25·1	...	...	...	...	...	...
Huddersfield ...	83418	37	38	21·9	...	...	...	...	...	...
Halifax	74713	44	33	23·0	...	...	...	...	...	...
Bradford	200158	121	95	24·8	54·6	29·7	42·4	5·78	1·53	3·89
Leeds	345998	232	165	27·2	55·0	26·3	42·7	5·95	0·84	2·13
Sheffield	290516	199	138	24·8	55·0	33·5	43·1	6·17	1·07	2·72
Hull	158814	106	98	32·2	54·0	25·0	39·6	4·23	0·58	1·47
Sunderland ...	118065	101	19	17·8	53·6	32·0	43·3	6·28	0·54	1·37
Newcastle	147626	126	69	24·4	...	...	...	...	...	...
Cardiff	58724	68	39	23·5	...	...	...	...	...	...
For 28 towns ...	8469571	5721	3919	24·2	59·0	25·0	43·1	6·17	1·13	2·87
Edinburgh	232440	122	99	22·2	54·2	31·4	41·1	5·03	0·84	2·13
Glasgow	511048	392	274	27·8	53·5	31·2	41·0	5·00	1·85	4·70
Dublin	348293	210	195	29·2	54·7	31·8	43·5	6·39	1·13	2·87

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·31 in. The highest reading was 29·67 in. on Tuesday evening, and the lowest 29·09 in. on Friday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—The Local Government Board has appointed Dr. Barry to hold an inquiry into the case of the alleged death from vaccination at Darley.

The Middlesex Coroners.—The monthly accounts presented to the meeting of the county magistrates last week, and ordered to be paid, were as follows:—Sir J. Humphrey, 216 inquests, £388 10s. 6d.; Dr. Danford Thomas, 150 inquests, £285 3s. 6d.; Dr. Diplock, 78 inquests, £147 6s. 6d.; Mr. Bedford, 30 inquests, £68 17s. 6d.—making a total of £889 18s.

The Egremont Cemetery.—The following case came before the Chancery Division lately. The action was brought by the Egremont Burial Board against the Egremont Iron Company, to restrain the defendant Company, by injunction, from working the ore in the mines under the plaintiffs' cemetery, thereby causing a subsidence in the soil which permitted of coffins falling through into the defendants' mines; for damages for the injuries sustained by the restoration of the coffins to the graves, and for filling up the holes caused by the subsidence. For the defence, it was alleged the defendants had a right to work under the cemetery by virtue of an instrument executed in 1799. The Judge held that the defendants had no such power under the reservation as they thought, and granted the injunction sought for, directing an inquiry to be made as to damages.

A Memorial Coffee-Tavern, Newark.—This tavern, which is the gift of Viscountess Ossington, was formally opened by her ladyship a few days since. It is very commodious, containing rooms for assemblies and clubs, reading and billiard rooms, sleeping apartments, and every other convenience. The cost has been nearly £10,000. It is intended as a memorial of the late Viscount Ossington, and his nephew, the late Mr. Denison, M.P. for Newark.

Our Bakehouses.—It is satisfactory to observe that our bakehouses are not merely inspected by authorised officers, but prosecutions for infractions of the law have been instituted, and convictions obtained, resulting in the imposition of fines varying in amount according to the delinquency proved. The Metropolitan Board of Works have just resolved to urge the Home Secretary to introduce into Parliament shortly a measure for enabling the Board to make regulations as to the sanitary condition of bakehouses in the metropolis, with power to inspect and enforce the regulations.

Scarborough, C.—The Medical Officer of Health for the borough reports that for the month ending the 11th ult. thirty-one deaths had occurred, of which eleven were children under eleven years of age. The death-rate up to the date mentioned had been 12·28 per 1000, against 20·38 per 1000 in the corresponding period of 1881.

Vaccination: Official Pressure.—Dr. Stephens, the Vaccination Inspector, attended the last meeting of the Board of Guardians of the Holborn Union for the purpose of urging upon the Guardians the necessity for taking more active means for enforcing vaccination. They had an epidemic of small-pox every five years, and it was found to prevail in certain districts, in consequence of the neglect of vaccination. There were 10,000 children born every year who were not vaccinated, and many of this class came to London, and went into the workhouse; and he urged that children born in the workhouse should be vaccinated before they left, even when the child was only three or four days old. If they were not vaccinated before they left the workhouse, it was not done afterwards.

Adulterated Food and Drink, Paris.—The municipal laboratory for the analysis of the solid and liquid food sold in Paris is issuing a series of reports, from which it is seen that, in fact, nearly every article of consumption is more or less adulterated. Coffee and chocolate are rarely sold pure.

Milk Pollution.—Dr. John Dougall, of Glasgow, on "Milk Pollution," refers to the belief of some germ-theorists, who hold that the alleged germs of infection withstand a temperature of 212° Fahr., and yet they recommend the boiling of milk to render it non-infective by destroying such germs. It had always, he said, far exceeded the utmost boundary of his conception to fancy that a temperature which utterly destroys every form of tangible ovum and every kind of visible seed known would be resisted by ultra-microscopical organisms. He would accept this statement as true when he was shown a hen hatching a chick from a hard-boiled egg, or a boiled potato sprouting. It followed, as a corollary to his view, that he believed the boiling of milk destroyed every organism and germ which it contained, and not only so, but he was certain, also, all infective putrid particles, which he still believed was the form assumed by zymotic poison.

Brompton Consumption Hospital.—The Committee appeal to those who have no further use for wheeled chairs to present them to the Hospital, where they will be most acceptable, for the use of the more weakly patients, to enable them to move freely about the roomy corridors of the new extensive building.

Dover Hospital.—The governors have decided that the honorary medical staff shall consist of six practitioners.

Interesting.—The *Court Journal* states that the experiment of weighing the Horse Guards returned from Egypt showed that the heavy men had perceptibly lost flesh, whilst the slight men had gained. On the whole their health is reported to continue excellent.

Insanity in France.—Of all the French departments, it appears that the Seine furnishes the largest proportion of cases of insanity. During the last eighty years, while the population in that department has barely increased threefold, the number of patients in the madhouses has multiplied more than six-fold. The admissions last year numbered 2438, of which 180 were foreigners. The expense of the latter was 60,000 fr., for, among European States, only Russia, Switzerland, and the Grand Duchy of Luxembourg indemnify the French authorities for the expenses incurred in this way on behalf of their own subjects. The German Government, however, is willing to pay the cost of sending back to the Fatherland any German subjects whom it may be necessary to keep under restraint. The estimated expenditure in the Paris madhouses for the next year is 4,800,000 fr.

Small-pox, Newcastle-under-Lyme.—Notwithstanding the active efforts of the Corporation and their officials to suppress small-pox, the disease has been spreading for some time past. There are several cases in hospital.

"*First Aid*" *in Glasgow.*—The St Andrew's Ambulance Association is doing good work in this city. The Association has placed before the mill-owners, with good results, the necessity of keeping a number of stretchers and other apparatus for instant treatment of the wounded. The Association has bought a light one-horse vehicle for use in cases of accident, to convey the injured to hospital. Between the Association and various works there is telegraphic or telephonic connexion, so that the vehicle may be instantly sent for.

Female Doctors: Permission to Practise Refused.—An Austrian lady, who has graduated as a doctor of medicine at Zurich, has been refused permission to practise by the Cultus Minister of Austria. He holds that the diplomas of foreign universities can only confer rights on those who would be eligible for degrees at Austrian universities, and as these do not admit women as students, his decision debars all women, however well qualified, from all those professions for which a university degree is required. It is expected an appeal will be made to the law courts.

An Examinee's Question on Mortification.—At a medical examination, a young aspirant for a physician's diploma was asked, "When does mortification ensue?" "When you propose and are rejected," was the reply.

A Feast for the Enthusiast in Competitive Examinations in China.—A contemporary states:—"The yearly provincial examinations were held this autumn in Hongchow, the streets of which city are described as having literally swarmed with students of every age, from fifteen to eighty, and of all conditions, from the poor bank drudge to the sleek millionaire. The examination 'hall' was an enclosure of some eight acres, containing 10,000 cells for the students, each cell being about three feet wide, five feet deep, and seven feet high, and furnished with two boards—one for seat and bed, the other for desk and table. The candidates went in on the 8th day of the 8th moon, and remained in till the 10th—two nights and one day. They then came out, and returned on the 11th, when they went through precisely the same ordeal, which was repeated on the 14th, and they finally left their cells on the 16th. It is no unusual thing, we are told, for a candidate to be found dead in his cell."

An Insanitary Suburb, Chester.—Notices have been served on owners of property in the village of Christleton, near Chester, calling upon them to have certain nuisances of a serious character at once abated. This proceeding has been taken in consequence of an inspection made by the sanitary inspector, who has reported upon the present deplorable sanitary state of the village. Scarlet fever has prevailed there for some time.

COMMUNICATIONS have been received from—

Messrs. Arnold and Sons, London; Dr. Philipson, Newcastle-upon-Tyne; The Secretary of King's College Hospital, London; The Registrar of the Apothecaries' Hall, London; Miss Yates, London; Dr. C. S. Roy, London; Mr. T. Pridgin Teale, Leeds; Dr. A. E. Sansom, London; Dr. T. C. Nesham, Newcastle-upon-Tyne; Mr. H. Courtenay Fox, London; Mr. Rushton Parker, Liverpool; Dr. J. W. Wolfe, Glasgow; Dr. Henry Ashby, Manchester; Mr. J. H. Morgan, London; Mr. F. W. Rounds, Liverpool; The Secretary of the Clerical, Medical, and General Life Assurance Company, London; Colonel Bolton, London; Mr. Simeon Snell, Sheffield; Dr. James Ross, Manchester; Mr. W. Dyson, Sheffield; Dr. Thomas Ellison, Newcastle-upon-Tyne; Mr. Reginald Harrison, Liverpool; Mr. R. H. Bertram Wrightson, Newcastle-upon-Tyne; The Honorary Secretary of the Obstetrical Society of London; Mr. J. Chatto, London; The Honorary Secretary of the Medical Society of London; Mr. Warren de la Rue, F.R.S., London; Dr. Henderson, London; Mr. F. Canton, London; Mr. J. W. Hulke, F.R.S., London; Professor W. T. Gairdner, M.D., Glasgow; Dr. A. T. Thompson, Glasgow; Dr. Sidney Coupland, London; Mr. Thomas Christy, F.R.S., London; The Registrar-General for Scotland, Edinburgh; Mr. Walter Whitehead, Manchester; Dr. J. Nunneley, Leeds; Mr. Joseph Bell, Edinburgh; Dr. Matthews Duncan, London; Mr. G. P. Field, London; Dr. R. B. Taylor, Santillana.

BOOKS, ETC., RECEIVED—

Bericht der K.K. Krankenanstalt Rudolph, stiftung in Wien vom Jahre 1881—The Life and Work of St. Paul, part v.—Health Lectures for the People: On Ventilation, by Douglas Maclagan, M.D., etc.—Microbes in Fermentation, Putrefaction, and Disease, by Charles Cameron, M.D., LL.D., M.P.—Diphtheria, and its Treatment by Papaine, by Dr. Dubois, Mauritius—Resefia del Segundo Ejercicio del Instituto de Terapéutica operatoria del Hospital de la Princesa—Speech and its Defects, by Samuel O. L. Potter, M.D.—Transactions of the Edinburgh Obstetrical Society, vol. viii.—Drink an Unstrong Drink, by B. W. Richardson, M.D., LL.D., F.R.S.—Transactions of the Clinical Society, vol. xv.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Students' Journal and Hospital Gazette—Australian Medical Journal—Revue Mensuelle, etc.—Western Medical Reporter—Weekblad—Wrexham Independent, November 25—Correio Paulistano, October 31—Revista de Medicina.

APPOINTMENTS FOR THE WEEK.

December 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

4. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 5 p.m. General Monthly Meeting.

Odontological Society of Great Britain, 8 p.m. Mr. Charters White, "On the Salivary Glands of Insects." Casual Communications by Messrs. G. Parkinson and G. Brinton, etc.

Medical Society of London, 8½ p.m. Dr. Heneage Gibbes will give a Demonstration on Bacilli and on the Manner of Staining them. Dr. C. Theodore Williams, "On a Case of Bronchiectasis treated by Tapping."

5. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Specimens: Dr. Bedford Fenwick—Fatty Degeneration of Walls of the Heart. Mr. H. Morris—1. Acute Dilatation of Stomach; 2. Photograph and a Living Patient with Osteitis Deformans. Dr. F. C. Turner—Congenital Malformation of the Heart. Dr. Norman Moore—1. Stricture of Intestine; 2. Tubercles of Liver; 3. Joints from a Case of Scarlet Fever; 4. Malformation of Heart. Mr. Barwell—Excessive Deformity from Rachitic Osteomalacia. Mr. Bowlby—1. Disseminated Polypi of Colon; 2. Polypus of Rectum; 3. Polypus of Small Intestine. Mr. J. B. Sutton—Disseminated Abscesses in Liver of Python and of Kangaroo.

6. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 11 a.m.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 p.m. Lectures and Demonstrations: Dr. Percy Kidd.

Epidemiological Society, 8 p.m. Dr. Edward C. Seaton, "On the Influence of Small-Pox Hospitals, illustrated by the Recent Behaviour of Small-Pox in Nottingham."

Obstetrical Society of London, 8 p.m. Specimens will be shown by Dr Cleveland, Dr. Ellis, Dr. Galabin, and others. Dr. Hopkins Walters, "Remarks on a Case of Post-partum Avulsion of the Uterus, Right Ovary, and Fallopian Tube, followed by Recovery." Dr. A. Wynn Williams, "On Ruptured Perineum: Improved Method of Operating." Dr. Edis, "On Epithelioma of the Cervix Uteri; Pregnancy; Cæsarian Section: Recovery." Mr. J. Knowsley Thornton, "On a Case of Extirpation of Uterus and Appendages for Epithelioma of the Cavity."

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

8. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

Clinical Society of London, 8½ p.m. Mr. Godlee, "On Three Cases of Intussusception in Infants, treated by Abdominal Section." Dr. Coxwell, "On the Case of a Child with Symptoms resembling those of Myxœdema" (patient will be shown). Mr. Nunn, "On a Case of Necrosis of the Hyoid Bone and Larynx." Mr. Davies-Colley, "On a Case of Enormous Enlargement of the Lower Lip, cured by Operation." Cases of Pseudo-hypertrophic Paralysis in Adults will be shown by Dr. J. H. Green and by Dr. G. K. Fowler.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF WOMEN.

Delivered in St. Bartholomew's Hospital.

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery at the Hospital.

Lecture V.—ON MINOR DISPLACEMENTS.

No subject has of late years occupied more of the attention of gynæcologists than that of minor displacements; and I wish to give you, in this lecture, some general views regarding them, since in your future practice you will often have to consider them: and some guidance is needful, for, the matter being difficult, of course opinions vary extremely.

Occasionally you see a case of retroversion or of retroflexion of the gravid uterus, a most important great displacement, cured by replacement; but the subject of this lecture has very little in common with that great disease. The minor displacements now to be considered are frequent enough in "Martha," but they rarely get written on the register as the name of the patient's disease, for you know I regard them as important conditions of other disease, not as in themselves diseases. A retroverted, or retroflexed, or anteverted, or anteflexed, or a laterally displaced, womb is not therefore a diseased womb—does not cause any pain or disorder or disability; nor does the first degree of descent.

You will not be able to comprehend the difficulties of this matter, nor to appreciate it justly, unless you include in your judgment the influence of enthusiasm on the doctor, and of enthusiasm and hysteria on the patient: and these are subjects on which, unfortunately, I cannot enter. The doctor and patient are so delighted with the simplicity and intelligibility of the supposed disease, and so impressed by them, that they are with difficulty made content while the displacement continues, even although pains and aches and every known evil are gone.

I dismiss without discussion those extreme views which, though prevalent, are not the less untenable and very injurious. In a former lecture, on indirect symptoms, I gave you some idea of those views, enumerating the evils attributed to even slight displacement of the womb—the womb "a little to the left," as I was told by a physician lately, in a case treated by years on the sofa and pessaries. Were such doctrines well founded, life for woman would not be worth having, for the position of no womb satisfies those who entertain them, and treatment has, as its ordinary consequence, failure and disappointment, and sometimes grave disaster.

Although of late years this subject has put on a new phase, that of treatment, and especially by ingenious and peculiar pessaries, it is not novel. Long before the present generation of doctors, minor displacements were well known and more correctly estimated than they are now. A high British authority of an early part of this century points out that the ante or the retro are of little import compared with the descent; and I go further in the same direction.

A womb may be more or less rigid, and will keep its shape against distorting or flexing forces if its rigidity is sufficient; and, in that case, it will become displaced in mass, with shape nearly unchanged, or in the words of the science, be verted, not flexed or distorted. Congenital distortions or flexions we are not considering, but only those cases where the change in the womb is believed to be acquired, and in these a distorting or flexing force is also a displacing force. An acquired distortion or flexion is also a displacement, and in the matter under consideration the displacement is always descent in some degree.

Version and flexion are very useful terms, and you find me frequently using them, and thus recommending them to you; but I would like you when studying a case to keep in mind that all displacements are forms of descent, and that it is not only a bit of the womb or the womb alone that descends, but the whole abdominal contents as well, or, at least, the contents and part of the soft tissues of the pelvis. The descent, so far as it affects the womb, may move one part more than another, and then you have a flexion; or it may move the whole, and then you have a version or descent. A pliable womb may have more than one flexion, thus showing, on section, a sinuous line of cavity, but generally there is only one. The bend may be in any possible degree, and the walls are so thick that any possible degree does not interfere materially with the easy permeability of the uterine canal or passage. It is common to teach that the bend or flexion takes place always at the level of the internal os; but this is an error. For, while, at this point, anteflexion and retroflexion are frequent, it is often impossible to say where it is, the whole womb being uniformly or nearly uniformly curved; and it is not rare to have flexion in the body, that is, above the internal os, or in the cervix, that is, below the internal os. Of these facts I have often given you clinical evidence.

Circumstances, difficult to appreciate actually, determine in each individual case the direction of the descent, whether it be an anteflexion or retroflexion, an anteversion or retroversion, or a descent without flexion or version. Although this actual determination is not to be made, we may boldly assert that it is, in the main, a mechanical affair of forces, of which the result is what we diagnose.

The analogy of hernia helps more to comprehend displacements than any other, and especially to grasp the causes and effects; and we may adapt old-fashioned language to the present case, and describe causes as exciting and predisposing. The former are the real causes; the latter are favouring circumstances which are in no sense real causes. Increased weight of the womb may be an exciting cause, so may a well-adapted fall or jump, or such sudden downward shock; but greater than these is prolonged downward pressure, as in certain kinds of hard work; and in all cases you have a diminished retentive abdominal power, or a negative condition of intra-abdominal pressure. With a natural or positive condition of the retentive power there will be no danger from increased weight of the womb (as in ordinary pregnancy); dislocation produced by a fall or shock will be repaired immediately, and the hardest work may be carried on without injury. With an indifferent state of intra-abdominal pressure, permanent harm may result from these causes. But, without any other cause, a negative abdominal pressure is sure to produce hernia somewhere; and in women it will probably take the form of some kind or degree of descent of the womb. Predisposing causes include everything which tends to aggravate or increase the cause, and everything which diminishes the resistance, such as relaxation of tissues or destruction of parts subjacent to the womb.

It is, I believe, universally admitted that versions, flexions, and descent are not necessarily the cause of any discomfort or disorder, and this is a cardinal fact in this subject. Think of it. Thousands of blooming, happy, fertile women have displacements. To treat a displacement, simply because it exists, is a grave error, and yet not a rare one. Such simple uncomplicated displacement is not disease. It is the condition of equilibrium of that woman's pelvic viscera, and therefore the displacement is a constituent part of her comfort and health. I may confirm what I have said by reminding you that a woman may have her womb not only displaced, but also monstrously misshapen or distorted by a fibroid or fibroids, and yet have not a pain or an ache or any discoverable disorder. In fact, it would be hard to say what shape and what position of the womb are unnatural, not to say morbid; certainly its shape and position have very wide range within the limits of the natural or not abnormal.

There is a vast number of cases of chronic disordered health in women, of most varied kinds, which are associated with displacement and descent, and it is very common in the present day to regard the displacement as an important, or as the chief factor, in these cases, even when there are no local or direct symptoms whatever. Now, here my respect for my professional brethren forbids my speaking dogmatically, yet I do not hesitate to recommend you not to adopt this view. Very long experience of my own and of the practice of others leads me to regard the displacement in such cases as trivial, not demanding treatment. You may have the displacement without the symptoms, and the symptoms without the displacement; and till we have some evidence, better than we have now, that the symptoms depend on the displacement, I advise you to leave the displacement alone. You cannot successfully treat it, and, if you did, your patient is not nearer to restored health.

Again, there is a large number of cases of chronic disordered health, of most varied kinds, associated with displacement and descent, and with local or direct symptoms of uterine, or at least of pelvic, disorder. In these it is always important, if you can, to remove the disorder, whatever it may be, and the symptoms too.

Lastly, there are many cases where the local symptoms and the local disorder are alone or predominate.

The symptoms of displacement and descent cannot be definitely described. They are often classed as the general symptoms of uterine ailment. Sacrache, lower lumbar ache, aching in the hips, or in the groins, or in the thighs,—all aggravated by walking, and still more by standing. To these are to be added feelings of bearing-down, bladder trouble, and rectal trouble. All of these, and more, or none at all, may be present. There is no relation between the degree of displacement and the severity of the symptoms. They are, in fact, associated with the displacement, and, it may be, aggravated by it; but I do not think they are ever the result of the displacement, pure and simple.

At the bedside, however, we have a great number of cases presenting symptoms of uterine ailment, in which displacement has an important place or share, and must be considered. An experienced practitioner cannot fail to see the advantages of a high and well-poised womb, the disadvantages of the descended and displaced organ. And a great practical test of the influence of the displacement is the aggravation by walking, and still more by standing, and the relief, generally almost complete, obtained by lying down. This last is of itself very nearly diagnostic.

If a woman has a uterus or any organ or tissue in her pelvis tender or inflamed, it is pressed and irritated by the general displacement and descent; and standing, as is easily understood, makes the matter worse, while all is mitigated by horizontal repose. I have heard and read a great deal of anteversion and anteflexion being specially connected with or causing bladder trouble, and of retroversion and retroflexion being specially connected with rectal trouble, but I regard the connexion or association in both cases as quite accidental—not to be expected. It is, indeed, in a rude way, natural to expect this result, but clinical experience has not demonstrated it; nor is there any satisfaction or rationality in the common explanation founded on pressure—forwards in the one case, or backwards in the other. If there is no complication by adhesions or otherwise, pressure forwards and pressure backwards are just the same—equal and contrary.

Complications, then, are generally the chief matter in displacements, not the displacements *per se*; and the complications are generally congestion and inflammation of the womb or of parts of it, or of neighbouring organs.

I must now conclude this too brief lecture, again reminding you that it is only some general notions that I have been able to give you. The subject has many mysteries which I cannot explain. To guide you in cases of this kind you need wisdom over and above, but not without, science and experience.

Medical Statistics of the German Empire.—Dr. Börner states in his Medical Calendar for 1883 (*Deutsche Med. Woch.*, November 4)—1. that there are 17,623 practitioners in the German Empire; and that of these 8634 belong to Prussia, 3360 to Bavaria, 1017 to Saxony, 1053 to Würtemburg, 576 to Baden, 553 to Hesse, 220 to Mecklenburg-Schwerin, etc. As to their distribution, there are in Germany in general 3·26 practitioners to a square kilometre, 2·20 in Prussia, 5·10 in Bavaria, 6·78 in Saxony, 5·40 in Würtemburg, 3·78 in Baden, and 4·58 in Hesse. Berlin contains 1048 practitioners, *i.e.*, 9·33 to 10,000 inhabitants. In entire Germany there are 5·87 per 10,000, in Prussia 3·17, in Bavaria 7·31, in Saxony 3·42, in Würtemburg 5·35, in Baden 3·62, and in Hesse 4·06. Of the Prussian provinces, Posen has the smallest number, viz., 1·69, and Hesse-Nassau the largest number, *i.e.*, 4·50 per 10,000. 2. The number of apothecaries in all Germany is 4130 (0·98 per 10,000), and in Prussia 2396 (0·85 per 10,000). 3. Germany possesses 2576 hospital establishments, making up 127,062 beds. In Germany there are 0·56 hospitals for 10,000 inhabitants, and in Prussia 0·50. These numbers are only approximate, as, in spite of all the pains taken, it has been found impossible to construct an exact list of hospitals and their beds. 4. There are published 153 journals devoted to medicine and the allied sciences.

CLINICAL LECTURES

ON CASES OF PLEURITIC EFFUSION.

Delivered at the Hospital for Consumption and Diseases of the Chest at Brompton.

By R. DOUGLAS POWELL, M.D., F.R.C.P.,
Physician to the Hospital; Physician to the Middlesex Hospital.

Lecture III.

ON THE TREATMENT OF EFFUSION.

Gentlemen,—At my last lecture I was only able to discuss some of the supplementary signs of pleuritic effusion, and to illustrate some of the conditions present which those signs disclosed. I must to-day, however, pass on to deal with the treatment of effusions into the pleura. Still bearing in mind our practical classification of effusions into inflammatory, mechanical, and hæmorrhagic, we must, from the briefness of time at our disposal, at once dismiss hæmorrhagic effusion as generally a surgical malady, and mechanical effusion as requiring treatment simply by tapping, should the urgency of effusion symptoms overreach that of the primary disease. And with regard to the subgroups of inflammatory effusions, the acute effusions, simple (*i.e.*, sero-fibrinous) and suppurative or purulent, will require our chief attention; for in proportion as these diseases are successfully dealt with in their acute phases, chronic and fistulous empyemata will obviously become increasingly rare.

The treatment of an acute sero-fibrinous effusion is, in the first place, that of the pleurisy which gives rise to it. And if you scrutinise the object underlying the routine treatment of acute pleurisy with advancing effusion, you will find that it is *to reduce arterial pressure within the pleural vessels*. It is in this way that our general remedies—viz., one or two aperient doses, followed by diaphoretic and diuretic salines, rest, and restricted diet—tend to diminish effusion from the actively congested and temporarily paretic vessels of the pleura. At the first onset of the disease, aconite may be usefully given with this view; and if digitalis be of value at this stage, it is chiefly through its action upon the kidneys, and it is for this purpose best given in small doses of the infusion. A few leeches are often of great value in lessening the intensity of the local lesion, which may be judged of by pain and pyrexia. Hot poultices, frequently changed, are also valuable in the same direction, *i.e.*, by dilating the superficial vessels they necessarily ease pressure upon the deep distribution of the intercostal arteries. A blister applied under the poultice is sometimes valuable in the same manner.

Whilst the inflammatory fever is at its height, the less we meddle with any effusion present—unless it become of itself a danger—the better. We must bear in mind that a certain amount of effusion is as much to be looked for in acute pleurisy as exudation into the air-vesicles in pneumonia, or "running at the nose" in nasal catarrh; and the products in the three cases do not, *cæteris paribus*, essentially differ. The pulmonary exudation consolidates *in situ*; the nasal product stiffens the handkerchief; and the exudation into the closed pleural sac remains limpid and liquid only until exposure to air or the pressure of a foreign body (or perhaps intrinsic change from lapse of time) determines a certain variable amount of coagulation, a thin layer of which covers the roughened surface of the pleura and protects it, and flakes of which sometimes float in the fluid. Again, given acute inflammation of the coverings of the lungs, a certain amount of effusion is useful in separating and bathing in a bland fluid the tender and inflamed surfaces, and further, in keeping at rest the affected portion of lung. It is too often forgotten that the lung is in health exercising a constant traction upon the pleural sac, the vessels of which have therefore to sustain a negative or aspiratory pressure; this being so, it is but natural and physiological that if these vessels become temporarily weakened and congested by the inflammatory process, increased exudation should proceed from them. The effect of this exudation is to neutralise lung traction, and therefore to lessen influx of blood to the weakened vessels. Fluid effusion being thus both natural

and salutary in acute pleurisy, we must be watchful, but not meddlesome, in our treatment of its earlier stages. Up to the end of a week or ten days we need not, in ordinary cases, consider how to promote its removal; and, in the majority of cases, after this period the fluid will gradually subside by spontaneous absorption. Counter-irritation is of undoubted value at this stage, and small doses of iodide of potassium may be added to the prescription.

It is at about this period—towards the end of the second or third week of illness—that the question arises, whether or not to interfere and to remove a portion of the fluid by paracentesis. Thanks to the labours of Hamilton Roe, Trousseau, Bowditch, Dieulafoy, and others, this operation has been rendered safe and easy of performance, so that we may consider the advisability of artificially removing the fluid from the chest, without being harassed in our judgment by the fear of doing so. The extent of the effusion, the condition and family history of the patient, and the nature of the fluid effused, are the points which determine for or against the operation.

1. With good Skodaic resonance down to the third rib, and with no material enlargement of the side to measurement, we may assume, as I pointed out in my last lecture, that although much fluid be present, the lung is only held in the position of physiological rest, and that therefore operative interference is not called for.

2. The continuance of pyrexia would, at the end of the second week, at all events, dispose us to wait longer. If no progress in absorption has been made, however, by the end of the third week, we may with propriety remove a portion with the aspirator.

3. If the family history of the patient be unfavourable, our inclination would be to early interference, lest interstitial changes occur in the lung unfavourable to its re-expansion. [In cases, however, in which the effusion has occurred on the side on which there is already existing lung-disease of a phthisical nature, we should be *loth* to interfere, as experience certainly shows that an effusion checks, and sometimes arrests, the tubercular process.]

4. In cases in which the effusion mounts up to the second rib, or higher, extinguishing Skodaic resonance, and causing decidedly increased measurement of side, we may be sure that there is positive intra-thoracic pressure, impeding the heart's action, and compressing the lung so as to retard circulation through it. In such a case the pressure may amount to one inch or one inch and a half of mercury. Under these circumstances the patient is in danger of syncope. The signs especially indicative of danger are a straining, retching cough, with frothy, viscid sputa, sometimes streaked with a speck or two of blood. On listening over the chest on the healthy side, some rather fine crepitant râle may be heard here and there—a certain sign of pulmonary hyperæmia,—and a blowing murmur may be heard over the displaced heart. In the presence of such signs, no matter what the stage of the disease, immediate interference is called for. The removal of two or three pints of fluid by the aspirator or syphon will give the patient immediate relief, and no further operation may be necessary.

I have said little about such symptoms as dyspnœa, lividity, palpitation, etc. These, when present, will be valuable indications; but it has been well pointed out by Dr. B. Foster and others that symptoms are often deceptive. Whilst the patient is perfectly still he may not appear much distressed, when slight effort would be dangerous to him.

5. In cases in which there is any reason to suspect that the fluid may be purulent—quite apart from any question as to its amount—the needle of a fine subcutaneous syringe must be inserted at about the sixth space mid-axillary line, and a sample removed for inspection. Should it be pus of healthy character and sweet, steps must be taken for its thorough evacuation within a few days. Provided the pus be perfectly sweet, it is, I think, best not at once to operate upon a large effusion by making a free opening. The lung is compressed, and it is better in the first instance to remove a portion of the fluid by means of the syphon, for the double purpose of re-expanding the lung-texture, and diminishing the cavity of the abscess to be subsequently (within a short time, however) dealt with. Dr. Foster has also insisted upon the advantage of thus proceeding.(a)

(a) "On the Treatment of Pleurisy and Pleuritic Effusion." Address to the North Wales Branch of the British Medical Association, by G. Balthazar Foster, M.D., F.R.C.P.

Methods of Paracentesis.—The conditions within the pleura upon which should be based this or that surgical procedure are so varied in different cases that the physician cannot shirk his responsibility in the matter nor delegate it to the surgeon. The physician has to judge as to the necessity of any operation, and as to the particular objects to be attained by it. The surgeon has often full scope for his ingenuity and experience in designing means best adapted to each case when thus placed before him. Although here, therefore, I am obliged to dabble a little in surgery, I shall regard questions principally from the physician's point of view, and I will refer you for further surgical details to the admirable lectures on the surgery of the chest which some of us had the advantage of hearing from my colleague, Professor Marshall, a few months ago.(b)

The method of tapping the chest which I myself invariably recommend, is by means of a medium-sized trochar (cannula four millimetres in diameter), with tubing attached to act as a syphon. The trochar should work through an air-tight collar, and the cannula have a branch to which the tubing is fitted. Into the syphon tubing a glass T-tube may be inserted for the purpose of attaching a side tube to be connected with a mercurial manometer, by means of which the exact intra-thoracic pressure may be observed at the commencement, the end, and at any time during the operation. The syphon tube should be long enough to provide a fall of one, two, or three feet, as may be required; and it is well to have the basin end of the tube fitted with a metal piece to which the nozzle of an aspirator may, if desired, be at any time attached.

The instrument to be used must be absolutely clean, and the cannula and tubing should be filled with carbolised water (one to forty) before the commencement of the operation. If aspiration be preferred, Dieulafoy's, Bowditch's, or Potain's aspirator may be used.

Choice of Spot for Puncture.—The physician is responsible in choosing the site for puncture, and must not share the responsibility with others. In choosing the spot he has to be sure (1) that it is out of reach of diaphragm and heart; (2) that there is no adherent lung there. The *sixth space in the mid-axillary line* is the best point for puncture, and this point should be selected if, when tested by percussion, palpation, and auscultation, it prove satisfactory. This spot is most convenient because (1) most accessible whilst the patient is reclining in an easy posture; (2) the parietes are here moderately thin, and the intercostal space sufficiently roomy; (3) the mamma in females is out of the way; (4) we are sufficiently high up to be free from danger of perforating the diaphragm; (5) this point has the advantage over the point most commonly chosen, viz., below the angle of the scapula, in there being less probability of the cannula becoming blocked by the flocculi, which tend from the position of the patient to gravitate towards the back of the chest (most of the dry tappings I have observed have occurred with the posterior puncture); (6) this point has the advantage over one chosen more anteriorly in being more central with regard to the effusion.

Of course, in special cases of limited effusion the point for puncture must be selected accordingly, it being remembered, however, that a central rather than the lowest point of the effusion should be chosen for puncture.

Local Anæsthesia and Incision.—The best means of employing local anæsthesia is to cut a plane surface on a lump of ice of about one inch area, dip it in salt, and apply with firm pressure to the spot chosen: in thirty seconds the surface will be frozen, and having been rapidly sponged, a small incision should be made through the skin, and the trochar will be easily thrust in without pain. The advantage of making an incision through the skin is that otherwise the force of the thrust is broken by the resistance of the skin, and the pleura is sometimes carried before the instrument.

It is not desirable to remove the fluid too fast, and a fall of twelve to eighteen inches is usually enough. Should a flake of lymph obstruct the cannula at any time, the basin may be suddenly lowered so as to lengthen the syphon-fall. This failing, the trochar should be smartly thrust home again; or, if the manometer be in use, the basin-tube can be nipped, and a jerk given to the mercury by blowing forcibly down the free end of the manometer.

In cases of acute sero-fibrinous effusions, which we have

(b) Lectures delivered at the Brompton Hospital (*Lancet*, March, 1882).

more particularly in mind just now, it is a mistake to remove too much fluid. If we look at the manometer attached to our exit-tube, we shall find that after the removal of the first two or three pints, although there may be more than an equal amount still remaining, all positive pressure has subsided (see Lecture II., Fig. 3), and the mercurial column becomes drawn towards the chest. If at this early period of the disease we proceed much beyond this point, we are apt to determine fresh engorgement of capillaries and hyperæmia of lung. Dr. Bowditch recognises this stage of the operation in his direction to withdraw the trochar on the first appearance of spasmodic cough during paracentesis. We may usually rely upon the rest of the fluid being more or less rapidly removed; if not, the operation can at any time be repeated. With the removal of the fluid, friction-sound reappears, attended with more or less pleuritic pain—much less severe than the original pain, from the pleural surface being protected by a coating of lymph, and being no longer actively inflamed. It takes some weeks, or even months, before the breath-sounds are fully re-established, whilst fibrinous residues are being absorbed and the pleural surfaces united.

In perhaps no illness is it more important for convalescence to be thoroughly completed before returning to the active duties of life than in pleurisy. In those who can afford it, a sea-voyage, or two or three months' change in a suitable climate, should always be strongly advised as a measure of safety and, in the end, of real economy. It is important during convalescence from pleuritic effusions to direct patients to exercise the chest by deep inspirations several times daily. When the lung is slow fully to re-expand, an elevated climate may be suggested for the summer.

In cases of acute purulent effusion we in the first instance treat the patient as though the effusion were simple, at any time that the physical signs indicate decided intra-thoracic pressure removing a portion of the fluid by syphon or aspirator. Having ascertained, however, that the fluid is purulent, it must be determined—in the adult, at least—to take an early opportunity thoroughly to evacuate the pus by a free incision.

Some authors prefer, in children at all events, to try one or two aspirations before having resort to the more radical operation; and in some children the remainder of the pus is absorbed, although such an expectation is always hazardous.(e) It is best to wait, unless interference be necessary, until the period of active effusion is past—usually at the end of the second or third week—before actively interfering.

The point to be chosen for incision in cases of purulent effusion is a different one from that to be preferred in serous effusion. A moderately low opening is desirable, in the seventh or eighth intercostal space, and *in the posterior axillary line*. My reason for recommending a lower and more posterior point for puncture in these cases is, that in acute empyema we wish to empty the pleural cavity of pus, and we look to obliteration of the abscess-sac by the descent of the lung as it re-expands and by the return of the heart to its normal position: these processes converge towards the lower and postero-lateral position of the chest.(d)

Although there is no necessity to give chloroform, yet it is more convenient to do so, and patients with empyema bear anæsthetics very well. In operating be sure to make a good free opening into which you can introduce your forefinger, and thoroughly evacuate the fluid by the free admission of air. I would strongly advocate, in all cases where it can be accomplished, that the operation be done with all antiseptic precautions. Amongst the advantages, the dressings can under this method, after the first two or three days, be left undisturbed for two or three days together, thus keeping the cavity for these intervals practically closed, and affording the lung the very best opportunity of re-expanding. I am not contending that the antiseptic method is the only one that can with safety be adopted. I say that it is the best and most favourable to the rapid recovery of the patient.

Supposing the antiseptic treatment not to be strictly followed, all instruments and tubes used should still be steeped in carbolic lotion. The lighter and simpler the dressings used, the better. A large piece of absorbent cotton-wool should be first laid over the tube for the discharge to soak into, and a pad of oakum applied over that, the whole being kept in place by a few turns of elastic bandage(e) round the chest. For the first two or three days the dressings will have to be changed twice daily; then, if the drainage be perfectly free, the discharge will rapidly diminish and remain sweet, and one dressing daily will be sufficient. The drainage-tube must be removed at least once every two or three days, and thoroughly cleansed or renewed. The temperature of the patient must be carefully observed; it is the absolute test of the efficiency of the treatment. If there be any decided rise of temperature we may be sure that some accumulation of pus is present. Unless the contents of the pleura be fœtid, antiseptic injections are, in the first instance (and throughout, if there be no fœtor), best avoided, since they tend to retard the expansion of the lung. In those cases in which they are necessary they should be used with care. The pleura should never be *syringed out*, but an irrigator should in all cases be used. A tin pot or glass vessel, provided with a hole near the bottom, to which tubing is fitted, the tubing being supplied with a nozzle or pipe for insertion into the wound, is the simplest and best irrigator. The vessel, having been filled with the lotion required, is simply raised a foot or two above the patient, when the fluid flows into the chest equably, and with a uniform and measurable pressure. As it escapes from the chest the fluid is caught by a tray or other suitable receiver. Amongst the best disinfecting lotions may be mentioned—iodine, one drachm of the tincture to the pint of warm water; carbolic acid, 2 per cent.; Condy and water; quinine solution, two or three grains to the ounce; boroglyceride has recently been used in watery solution, one to forty. In the case of very young children who are terrified at injections, immersion in a warm bath coloured with Condy's fluid is an excellent plan suggested by Dr. Barlow and Mr. Parker.

It is a question likely to be more fully debated, whether, in acute cases of empyema, resection of a portion of a rib be desirable. This operation, which is a very simple one, has been advocated by Mr. Thomas, of Birmingham,(f) who has successfully adopted it in several cases since it was first proposed by Dr. Peitavy.(g) Should the tube become nipped this operation may at any time be performed, but in the first instance, *in acute cases*, it is rarely necessary or advantageous.

Cases of empyema, promptly dealt with in the manner above indicated, usually terminate favourably: the lung expands more or less rapidly, the heart returns, and the side falls in in varied proportions; the cavity diminishes, and the tube has to be gradually shortened, and finally dispensed with. There is often a troublesome tendency for the opening to close by granulation, which must be carefully guarded against so long as there is any cavity remaining. When treated antiseptically, however, it may be possible in some cases to allow the wound to heal sooner.(h) The treatment of cases of empyema which have unfortunately been allowed to become chronic is much more difficult and tedious; it should be pursued on the same lines, however, viz., by thorough and free evacuation of the pus, and subsequent free drainage.

Whether the pus finds its way through the lung, forming a bronchial fistula, or through the costal pleura, opening externally, the exit provided is rarely complete and sufficient, and surgery is necessary to supplement it. In other cases, again, the pus will undergo retrograde changes and remain quiescent as a large effusion in the pleura for many months or a year or two: these cases, as regards final recovery, are perhaps the least favourable of any. In the vast majority of all cases, however, experience teaches that nature is unable without aid to cope with empyema, and death after a more or less prolonged hectic closes the scene. It may

(c) *Vide* "Notes on Pleuritic Effusion in Childhood," by Thos. Barlow, M.D., and R. W. Parker. The recurrence of a hectic temperature after such an operation indicates the necessity for further measures.

(d) On this point I find that I differ somewhat from Professor Marshall (*Lancet*, March 4, p. 358), who advocates puncture at the fifth space nipple-line. The point named in the text, however, will be found to be well out of the way of the diaphragm—more so, indeed, than the fifth space in front; whilst it is also out of the way of the returning heart and descending lung. It is, indeed, about the centre of convergence of these organs and parts. In chronic empyemata in which the lung is hopelessly bound down, a higher point may at any future time be chosen.

(e) Statham's elastic porous bandage is admirably adapted for the purpose.

(f) "On the Treatment of Empyema by Resection of One or More Ribs," by William Thomas, M.B., F.R.C.S.

(g) *Bruns' Beit.*, Bd. 1, Heft 3, May 8, 1878, quoted by Mr. Thomas. The operation simply consists in the enucleation of an inch or two of rib from its periosteum, and removal by saw or bone-forceps.

(h) See case reported in author's work on Consumption, etc., chap. Empyema, page 262.

further be said that the chances of success are directly in proportion to the promptitude and thoroughness of the treatment adopted.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON THE ORDINARY DISEASES OF INDIA

ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(*Continued from page* 524.)

Ardent or Sunstroke Complication.—In the chapter on Ephemeral Fever, Common Continued, and Ardent Fever,(a) I have stated and illustrated the fact that, when the hot stage of a paludal fever occurs on a sunstroke day, the symptoms may be those of insolation. In any case of insolation we should always endeavour to discover whether the patient is known to have had fever lately or at any previous time, and whether a chill preceded the great heat of skin.

My friend, Surgeon-General Longmore, has given(b) five cases of men of H.M. 10th Regiment, who, having been admitted to hospital for Remittent Fever, were attacked there with symptoms of Insolation. Four of these patients died. These cases occurred between May 23 and June 14, when the heat was most intense. I paid my friend a visit at this time, and never felt the heat of India more painfully. There were altogether sixteen cases of insolation and 100 of Remittent Fever in the regiment on that occasion.

Algide Diaphoretic Pernicious Complication, or Collapse.—Dr. Morehead(c) relates a case of Remittent Fever of about four or five days' duration, in which "the evening febrile exacerbation terminated in unexpected and fatal collapse. He draws this corollary: "the period of death, in protracted fatal cases, will not be the exacerbation, but the remission." In describing the sweating stage, Sir Joseph Fayrer has some very important observations upon the tendency to fainting and collapse—as in a striking case which he gives, where the deliquium was suddenly fatal—which is liable to follow a severe paroxysm, especially in the sweating stage. The late Dr. Sutherland gave me the following note:—Mr. ——, of the Civil Service [whom I recollect as a flabby-looking man of about fifty years.—N. C.], was attacked at Patna, at the end of the second week of June, 1857, with a low form of remittent fever. The case became serious. He had a very weak pulse, and was suspected to have a fatty heart. He was attacked in the Opium Factory, which was fortified against the insurgents, to which he had come as a place of safety. After a few days it was decided to take him back to his own house at Bankipore. Here he imprudently took solid animal food, unknown to Dr. Sutherland. The consequence was a violent attack of diarrhœa, which, for a time, caused anxiety with regard to the result. Later, the case appeared to go on favourably, and a senior medical man who saw him, in reply to his anxious desire to have a bath, prudently said that he might be sponged with warm water. On the evening before his death (on or about the tenth day of his illness), Dr. Sutherland found him in apparently a very improved and satisfactory condition, and he was considered to be out of all danger. About seven o'clock on the following morning Dr. Sutherland was hastily summoned, and found him in a state of complete collapse, and quite unable to give any account of himself. He was cold, and drenched in perspiration, which wetted the sheet on which he lay. The pulse at the wrist was scarcely perceptible. Dr. Sutherland was able to administer stimulants, and to use heat and friction, and to apply sinapisms to the legs, etc., but he rapidly sank. On inquiry, it was found that he had been so imprudent as to allow his bearer to sponge him before an open door in an outer room communicating with a verandah. The morning was rainy and windy [the rains must have set in a day or two previously; then the sudden change to chilliness from extreme heat is always most trying to the sick.—N. C.]. It was during or immediately after the act of sponging that collapse came on.

This was evidently a death from algide pernicious fever, or what Hertz terms *Febris Perniciosa Diaphoretica*. Mere syncope, which may, however, be attended with great danger, may occur in the sweating stage. Once at Chittagong, having an unusually severe attack of intermittent fever, I fell asleep as sweating commenced, and dreamt that I was out in the Bay of Bengal, lying on the thatch of a native boat, with a cold sea-breeze passing over my body. Waking, I found that my hair was as wet with perspiration as if it had been dipped in a bucket of water. I got out of bed, and went into the bath-room, when it occurred to me, "Something has happened!" Presently I found myself flat on my back, recovering from a "dead" faint. That which "had happened" was evidently the striking of my occiput on the terraced floor. In fainting at other times I have always had some little warning. The same accident happened to a middle-aged man whom I attended in Calcutta. In falling he cut his brow severely. I have seen this symptom, in a case of Indian fever, within the last few weeks. Where the heart is weak or the cerebral arteries are faulty, circulation may fail to be restored; but I do not think that mere syncope, in or after the sweating stage, is to be regarded as evidence of perniciousness.

I have seen diarrhœa replace the sweating stage. Vomiting usually occurs in the hot stage; and when it does not, it should be induced by ipecacuan and tepid draughts, as it is nearly always the signal of commencing perspiration. Sweating generally commences first over the mastoid processes and on the inside of the wrists. When, in the absence of a paroxysm, I found that this latter surface was moist and clammy to the touch, I always knew that fever would return if not arrested by quinine. When the skin at this spot felt cool and pliable, exactly like the leather of a soft and new white kid glove, I knew that the attack was at an end. These signs never led me into error. I have never seen an exception to this rule. When a paroxysm returns earlier than the immediately preceding one, the disease remains unchecked; but whenever it comes later we may be sure that we are subduing the fever.

Fayrer, citing Maclean, says that "the direct mortality from intermittent fever in India is small. In Bengal, out of a strength of 344,152, with 111,687 admissions, the percentage of deaths to strength was 0·24, of deaths to admissions 0·76."

Treatment.—I seldom found occasion to interfere in the hot stage, except when headache and fever were very obstinate. Then I kept the head cool and excited vomiting. I *once* applied a few leeches to the temples, without advantage, in the case of a man whose headache was very severe. *Immediately* moisture began to appear, in the manner noted above, my assistants were directed to give a moderate purgative. This was generally retained; but, if not, vomiting was followed by sweating, and the dose was repeated. When the cinchona-bark was first brought into use in England, all writers insisted that, to render it efficacious in ague, the first passages must be cleared by a purgative. Even Dr. Salmon's "Bates' Dispensatory" (1694) enjoins this precaution, which must never be neglected in India. When the purgative was retained, I gave six grains of quinine to an adult, without waiting until general perspiration set it. The steady use of quinine, *during the sweating stage*, moderates the severity of this crisis, and probably defends the patient against syncope. Many of my professional brethren value large doses of quinine. I do not; they often cause terrible headache, and do not appear to be more efficacious than moderate ones. My practice for many years scarcely varied. In the case of every adult European male, I ordered half a drachm of quinine in ten three-grain pills—two to be given on the first appearance of perspiration, one every three hours during the interval, and two at the *very slightest suspicion*, right or wrong, of the recurrence of a paroxysm. I used to tell my students that the European male generally required thirty grains, the European woman and the native male from twenty to twenty-five grains, and the native female from fifteen grains to a scruple. I found this law to be very constant.

For some time before I left Calcutta—more than five years ago—the native public had almost utterly lost faith in the efficacy of quinine, and I had great difficulty in persuading several of my native brethren, the leading practitioners, to prescribe it. Doubtless this scepticism originated with the non-professional native public, who, seeing that quinine often failed to cure Burdwan Fever (it will not

(a) *Medical Times and Gazette*, page 502, May 8, 1880.
(b) *Indian Annals of M. S.*, No. 12 for 1880, page 396.
(c) *Op. citat.*, page 69.

cure starving people who get it too late), considered it powerless. It is to be suspected also that there was a great deal of spurious trash, falsely called quinine, in the Calcutta market. I, at last, began to fear that the inestimable blessing of the great anti-periodic was about to be lost to malaria-impested India. About six years ago I observed a fact which may have partly afforded ground for this incredulity. I met with cases of what appeared to be ordinary intermittent that had been neglected, which resisted the power of Quinine with extraordinary persistence. We always anticipated such difficulty in ill-fed natives with long-standing malarious cachexia and splenic disease, but I am speaking of what seemed to be simple and uncomplicated cases. I especially noted the cases of a mother and daughter who occupied beds in my native ward, whom I fully expected to recover in from three to five days. Although I poured in quinine steadily and freely, the paroxysms recurred daily for eighteen and twenty days. It appeared to me, latterly, that nearly all cases of malarious fever displayed much of this stubbornness of resistance against the specific.

Whenever the inexperienced practitioner finds that a remedy of generally acknowledged efficacy fails in his hands, he may find encouragement in recollecting that there is great uncertainty in the certainties of Nature, especially when man's attempts to bring them into operation are hasty or clumsy. Thus, fire has usually the power of exerting very strong action upon paper and chips; but every shivering retired old Indian knows how very difficult it often is to light a fire. The materials are not properly laid, or they are damp, or there is not enough of them, or the register is down, or the door or windows are closed. So quinine is the true specific antidote to paludal fever, extinguishing it as certainly as water quenches fire, and as fire ignites wood, but it often fails to act as such. It may be impure, or may be injudiciously administered, as where the bowels are allowed to remain loaded; or it may be given in too small or too large doses; or we may not have a chance of employing it until the patient is moribund beyond recall; or the patient may not be properly fed or clothed or lodged; or there may be old organic disease. We must not expect quinine to do the impossible; and, in using it, we must not only have faith in its power, but we must, as in conducting any other delicate operation, surround the process of its employment with every precaution needful to secure its effectual action. To cite a single example: I was lately told by a retired brother officer of great experience, chiefly in the North-Western Provinces, that a common cause of remittent fever is neglect in the precaution, which he always employed, of wrapping the patients in blankets during the sweating stage of intermittent. This was not my practice, and I was not convinced that my friend's theory of the causation of remittent fever is correct. Still, there can be no question that a chill, during the sweating stage, is dangerous in the extreme, and may render our quinine treatment abortive.

A minor difficulty, in regard to Quinine, has probably always beset the physician in India. Among European ladies and gentlemen, about one patient in five says, very impressively, at the outset of the case, "I have not been able to take quinine for years, it always disagrees with me: you must not give me a grain!" My first Chittagong fever case, the collector, a corpulent, middle-aged gentleman, very ill, gave me this preliminary warning. I listened civilly and silently, thinking "If you really cannot bear it you will probably die." I sent him a full supply of the alkaloid, and watched its action carefully. It did not produce a single unpleasant symptom; it at once commanded the fever, he recovered quickly, and is now a remarkably well-preserved old man.

Having always used quinine freely, but carefully, and in moderate doses, I have never seen it do the slightest harm, nor can I accuse it of causing permanent deafness or any other ill result. Early in my practice at Chittagong, I was treating a young infant for the diarrhœa which is prevalent among teething children in India. Having ordered moderate doses of quinine, I found, to my horror, that, by my dispenser's error, the baby was taking what I feared must be poisonous doses. I watched the case in great suspense for many hours, but not the slightest evidence of increased bowel-irritation nor any other evil result was perceptible.

I was more than once desired by the Head of my Department to try, and to report upon, the Cinchona Alkaloids, and other preparations of Bark. I found them all very efficacious in common cases of intermittent, but I know nothing of their power in grave cases of remittent; as, having quinine at hand, I would never use them when life was in peril. I sometimes wished that I had, for a short time, been so placed as to be compelled, in the absence of quinine, to test their efficacy in serious cases. Certain it is that the true measure of their power ought to be clearly ascertained. In dispensary and native military hospital practice, Atees (*Aconitum Heterophyllum*) of the lower spurs of the Himalayas, and Kat-Kalija (*Cœsalpinia Bonducella*), the pods of which may be seen growing in every swamp in Bengal, washed down with infusion of Chiretta, are most useful in simple cases. On one occasion, as I have already stated, my supply of quinine and cinchona bark having failed, ordinary intermittent being very prevalent in my jail and sepoy hospitals, I had nothing but Kat-Kalija and Chiretta for six weeks, and found the mixture perfectly efficacious.

Although quinine and other tonics may, by maintaining constitutional power, render persons residing in malarious districts capable of resisting fever, and go far towards mitigating the violence of its attacks, all experience combines to prove that quinine is not a valid prophylactic against severe intermittent. Thus, if I get fever to-day, and at once check it by taking half a drachm of quinine in divided doses, the daily use of quinine, in such doses as I could bear and work under, will not prevent me from getting a return of fever a month hence.

I was taught, and myself taught for many years in India that, whenever we begin to find that a case of any fever, or dysentery, or diarrhœa, or any other allied malady, begins to resist treatment, *Removal* must be tried. As, when a man falls into a tank, he must be immediately taken out, so when a person falls ill, especially with malarious disease, in any locality, he must never be allowed to die there. I always endeavoured to move such cases from one room to another, from one house to another, from one street to another, from one end of the town to another; always, if possible, to a place better in its sanitary surroundings; but, if not, *anywhere*. A similar law is observed here in England, where cases of chronic whooping-cough, bronchitis, and hay fever are sent to the seaside. Three times, when living in and near Calcutta, I had, personally, recourse to this measure—twice in the case of a member of my family seriously ill with fever, and on the other occasion when I considered that I was dying with symptoms of hepatic abscess. We were carried from our own airy and perfectly well-appointed bedrooms to a Calcutta hotel, not at all noted for its salubrity, but where all the arrangements were comfortable (it used to be called "Chevers's Sanitarium"). I have alluded to the first case in my note on Denguis—recovery commenced immediately upon removal. The second was a very serious case of remittent fever with persistent head-symptoms. Convalescence set in about twenty-four hours after removal. In my own case, I had been ill in bed for a month. I had almost lost the power of taking food; I was drenched in cold sweat, and I believed that I was moribund. I was carried away to the hotel one evening; I slept comfortably all night, and next morning I had a keen appetite, and felt that health was returning. No symptom remained but considerable debility. The same observation has been made in regard to Yellow Fever in the West Indies, and I believe to Typhus in England.

There can be no question that, as a general rule, the constitution of victims of paludal cachexia is benefited by removal to a pure air in a non-malarious locality. Thus malarious asthma, which never entirely ceased to persecute me in India, has hitherto, in more than eight years, wholly spared me in England; but the scope of this rule is greatly qualified by the law, recognised by every Indian practitioner, which the following cases illustrate. A young lady who, after many months' residence at Chittagong, appeared to have escaped fever, went with her father, our chaplain, to Tipperah, which was not then considered as a very malarious station. She was immediately attacked with intermittent fever. A medical officer had never suffered from fever in India. He was sent to England for dysentery. He recovered from that disease; but, throughout his three years' sick furlough, intermittent fever persecuted him incessantly. Sir Ranald Martin, who attained advanced old age, and who remained generally healthy for some thirty years after he left India, told me, about a year before his death, that a fever which attacked him in the Cuttack Hills when he was

a young officer, had never since failed to persecute him every spring. Again, to refer to our own cases, two of us, retired from India for six and five years, are now getting far more severe paroxysms of intermittent in Bayswater than we ever had in Chittagong.

We used to observe the operation of a similar law in England before I went to India, in English ague and in other diseases. A City man would be treated for primary sore, and be recommended to take change of air, say at Hampstead or the then open Surrey Hills. In a day or two a papular eruption would make its appearance.

In cases where the paroxysm is ushered in by Convulsion, the bowels should be freely cleared by a calomel purge and a cathartic enema, and quinine must be given early and freely.

Knowing that Quinine does not cause bowel-irritation, which is always to be dreaded in India, and having full confidence in this specific, I never prescribed Arsenic in fever, and very rarely employed it in other diseases.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES OF EMPYEMA.

(Under the care of Dr. SANSOM.)

[For these notes we are indebted to Mr. R. J. OWEN, House-Physician.]

Case 1.—Richard G., school-boy, aged ten years, was admitted into the London Hospital, under the care of Dr. Sansom, on September 18. He was complaining chiefly of great pain in the left side, with shortness of breath.

His previous history was good, and presented nothing remarkable. Just before the commencement of this illness, patient, for some unknown reason, was shut up all alone in an outhouse for a long time, and since then he has been much excited in manner, and now "the least thing frightens him." His present illness commenced five weeks ago, with severe pain of a pricking character in the left side; it has continued ever since, but has not increased in severity.

On admission, his earthy, sallow complexion (much resembling the cachexia of 'malignant disease' was very noticeable. There was great restlessness with irritability, and at night delirium. Respirations 50; pulse 120; temperature 100° Fahr.

Examination of Chest.—There is much enlargement of the left side. The intercostal spaces bulge outwards, and the ribs are raised as in deep inspiration. Percussion gives an absolutely dull note over whole of left chest, except in the infra-clavicular region as far as the third rib. Tactile vocal fremitus and vocal fremitus absent, except in infra-clavicular region; and near the spine on a level with fourth to seventh dorsal vertebræ, there are bronchophony and faint tubular breathing. Respiration of right chest puerile. Apex-beat felt midway between the right nipple and right edge of sternum.

September 19.—The left chest was aspirated. Thirty-two ounces of pure healthy pus were drawn off. Shortly after the operation the apex was felt to beat in its normal position, and distant breath-sounds were heard all over left chest. Dyspnœa much relieved, and general condition of patient improved. Ordered liquid diet; port wine ʒiv.; and tinct. hyoscy. mxx, mist. quiniæ ʒss., ter die.

20th.—Friction sounds to and fro, closely resembling crepitant râles, heard all over left chest.

22nd.—Still improving. Left chest appears to be falling in; but measurement gives no difference.

23rd.—Since the aspiration his temperature has ranged from normal to 99·4° Fahr.; but last evening it rose to 102° Fahr. Pulse much the same.

25th.—Temperature still very high, 103° Fahr. Restlessness and great thirst. Delirium occasionally, especially at night. Ordered chloral hyd. gr. viij. at night.

27th.—There is now evidence of re-accumulation of fluid. Heart's apex is felt behind sternum. Percussion note is not so clear. Breath-sounds almost inaudible over left chest. Temperature 104° Fahr.; pulse 90; respirations 44.

28th.—The physical signs are much the same as when the chest was first aspirated. Apex of heart felt to right of edge of sternum. An opening was made between seventh and eighth ribs, a little external to the angles, and about four ounces of pus drawn off. A drainage-tube two inches and a half long was introduced. No change in position of heart, or in physical signs in the chest. Antiseptic dressings were applied.

October 2.—Dressings are changed every other day; discharge about one ounce and a half each time. Temperature has come down gradually to normal.

4th.—Temperature is now 102° Fahr.; discharge still very slight; apex of heart is felt behind sternum.

11th.—Evening temperature 102° to 104°; morning 98° to 100° Fahr. The boy looks very ill: his complexion has a greenish tinge; there is marked dyspnœa; respirations 48; he is very restless at night.

17th.—Temperature still high, going up to 105° Fahr. occasionally at night. The fluid appears to be diminishing. Anteriorly there is fair resonance. Heart's apex is felt in its normal position. Breath-sounds heard over left base posteriorly; percussion note fairly resonant; in axillary region the note is still dull. General condition improved; takes his food fairly well; sleeps better.

24th.—Rhonchi and moist râles heard at apex of right lung; temperature still rises at night to 103° Fahr. There has been no loss of weight since admission.

November 1.—Over left upper lobe the percussion note is tympanitic; crepitations heard over the whole upper lobe, front and back.

3rd.—Antiseptic dressing discontinued; drainage-tube removed; tenax applied as a dressing. Amount of discharge cannot be estimated, but it is very slight.

9th.—The evening temperature is now 103° Fahr. Over the lower part of the left chest the note is tympanitic; over the upper part of left lung shrill rhonchi with harsh breathing are heard, while at the base there are râles; slight bronchophony at the left apex behind; tactile vocal fremitus is increased over left chest.

14th.—Since the 10th, evening temperature has not been higher than 100° Fahr. His condition has much improved lately. The sallow complexion has disappeared; appetite is good; sleeps well at night; no discharge from the wound: the percussion note over the whole of the left chest, except just around the wound, is fairly clear; tactile vocal fremitus and vocal fremitus present; breath-sounds heard all over chest, except in the spot mentioned above; no adventitious sounds.

24th.—Percussion note good over whole of left chest, except over seat of wound, where resonance is impaired; here breath-sounds are feeble, but present; over rest of left chest the vesicular murmur is heard; expansion equal on both sides; no falling in of chest-walls or distortion of any kind. Patient looks well.

25th.—Discharged, well.

Case 2.—Selina B., aged ten years, was admitted on September 25, 1882, under Dr. Sansom's care.

On admission she complained of severe pain in left side, together with a troublesome cough; she was said to be losing flesh.

Family history good; no hereditary disease. Up to the present time the patient has enjoyed good health; she had scarlet fever and measles when very young.

Her present illness commenced, seven weeks ago, with sharp shooting pains in the left side, which were aggravated by coughing or on deep inspiration. These symptoms were accompanied by fever. The loss of flesh was rapid—from being a well-nourished child she was quickly reduced to a very emaciated condition.

Condition on Admission.—Skin very pale and sallow; hair very dark, also the eyes; has the appearance of being much reduced; very intelligent. Skin hot and dry. Tongue coated with a whitish fur. Heart: Apex-beat felt in right nipple line opposite fifth rib. Respiratory system: Breathes rapidly—forty-five per minute. Cough especially troublesome at night. There is much bulging of the whole of the left chest, with fulness of the intercostal spaces. Dulness is absolute over whole of left chest. Tactile vocal fremitus and vocal fremitus absent over the whole left chest, except near the spine. There the breath-sounds are of a tubular

character. Breath-sounds elsewhere very distant, almost inaudible. Breathing over right chest puerile.

September 26.—An exploring needle was introduced near angle of scapula, and an ounce of yellow creamy pus drawn off.

28th.—Paracentesis thoracis was performed, when thirty ounces of pus were drawn off, which was perfectly sweet. Heart's apex immediately felt in its normal position; breath-sounds heard more distinctly, and percussion note much clearer. Temperature, which from the time of admission to this date had remained from about 100° to 101° Fahr., fell to 98·4° Fahr. She is taking mist. quiniæ 3ss., tr. hyoscy. mvj., sextis horis; ol. morrhuæ 5ij. bis die; and mist. sp. vin. gallici 3ss. ter die.

October 10.—From the last date patient commenced to improve in her general condition. The cough and restlessness at night have ceased. Tubular breathing with a slight crackle is heard over left base posteriorly, which is quite dull. Axillary portion of left thorax is also quite dull. Over left mammary region there is dulness, with feeble breath-sounds. General condition greatly improved: she is gaining flesh rapidly.

18th.—Percussion note over front of left chest to below nipple is quite clear, the breathing here being feeble; over the left base posteriorly percussion note is clear; in infra-axillary region the note is quite dull. The signs are those of the remaining fluid gradually disappearing.

November 8.—There is still some dulness in left axillary region, the vesicular murmur being heard feebly. Tactile vocal fremitus somewhat diminished over left base posteriorly. Posteriorly, as far as the angle of the scapula, resonance is normal; below this the note is flat. Breath-sounds over left base are rather feeble; vocal resonance over whole of left chest slightly diminished, except at a point near the angle of the scapula, where it is somewhat increased.

10th.—Patient discharged.

(To be continued.)

Retention of a Dead Fœtus.—Prof. Depaul, in a clinical lecture (*Gaz. des Hop.*, October 12), exhibited two fœtuses, each of which had remained in the uterus for about five weeks after their death without causing any smell or exhibiting any trace of putrefaction—the membranes remaining intact. The occurrence of death of the fœtus without delivery often, he observes, causes great alarm in private practice, the friends of the patient expecting her to be at once poisoned by a putrefying child, which, however, only undergoing maceration, does her no harm. In reference to the diagnosis of the death, he says, the alarmed woman at once applies for advice. An opinion should not be at once given, and in a day or two the woman will return, announcing that she has turgescence and hardness of the breasts with a flow of some milk; appearances, in fact, similar to those observed after recent delivery. This is a most important characteristic for the diagnosis of intra-uterine death; and when the dead child is delivered a few weeks afterwards, the same condition of the breasts is reproduced in some women.

Production of Enlarged Pupil in Cerebral Diseases of Children.—Prof. Parrot observes that in certain affections of early childhood, with or without convulsions, with or without appreciable lesions of the brain, during the period of coma, which is instant, we may determine a momentary enlargement of the pupil, which is sometimes very marked, by pinching the skin, especially opposite the pit of the stomach. Among these affections those which consist in a manifest lesion of the nervous centres are tubercular meningitis, "pia-matral" hæmorrhage, chronic hydrocephalus, and those ill-determined conditions in which the volume of the cerebrum encroaches on that of the cerebral cavity. On the other hand, in other morbid conditions, usually without convulsions, but with coma, the very contracted pupil does not enlarge on pinching the skin. In these cases there is never any cerebral compression, the nervous centres being healthy or presenting a certain degree of œdema or congestion. Prof. Parrot lays down this rule, that an infant, attacked or not by convulsions, who is in a state of coma, and whose pupils do not dilate on pinching the skin, is not a subject of meningitis or pia-matral hæmorrhage, but is under the influence of advanced asphyxia, and his death is imminent.—*Gaz. Hebd.*, October 27.

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Medical Times and Gazette.

SATURDAY, DECEMBER 9, 1882.

THE WILLARD ASYLUM FOR THE INSANE, NEW YORK, U.S.A.

We have received lately an extremely interesting Report of the Willard Asylum for the Insane, New York, and, as the institution is a large one, containing some 1700 patients, and standing in nearly 800 acres of land, and appears to be one of the highest class and best managed asylums in the United States, it may be both interesting and instructive to compare its administration with that of asylums in this country. As to the treatment of the patients, mechanical restraint, though not abolished, is a rare and exceptional occurrence—a state of things which is not the rule in American asylums. Correspondingly, we find, as might well have been expected, that the amount of work done by the patients is exceptionally great, and that the opportunities for recreation and walking exercise are very liberal and largely taken advantage of. The dietary is surprisingly, we may say lavishly, generous. Hot meat and vegetables for breakfast every day in the week, hot meat for dinner every day, some extra, such as gingerbread, "cracked wheat," rusk, sweet-cake, "corn-meal mush," and for working patients meat, for supper every day, is an astonishing dietary compared with that of our asylums and hospitals. It is true that the clothing of the patients is not so good as with us, and, the winters being more severe, that a good deal of the additional food must therefore go to sustain temperature; but that this additional dietary is not an unproductive outlay is indicated by the very large amount of work done by the patients, and by the moderate annual cost per head, which is not more than that of several asylums in this country.

The main difference, however, between the administration of the Willard Asylum and similar institutions in this country is in the great advantage which this, in common with most other American asylums, possesses in the superior strength of the medical staff. In addition to the Superintendent there are no fewer than six assistant-physicians, or one to about 280 patients—a proportion far higher than

any asylum in this country can boast. It might make even a board or committee of governors blush to compare the Willard Asylum to institutions like Leavesden and Caterham, which have 2000 patients and only two assistant medical officers. How is it possible that so enormous a population of insane people should receive adequate supervision and investigation at the hands of two assistant officers? For the care of their bodily health alone, regard being had to the infirm and decrepid health of the patients, and to the obscure and perplexing maladies from which they especially are prone to suffer, such a staff is insufficient. But when to this task is added the investigation of the mental condition—an investigation which is always laborious and often very lengthy—the inadequacy of the medical staff would, were the subject not so important, be absolutely grotesque. As it is, it is monstrous. It is true that in the two asylums that we have mentioned the cases are of chronic and harmless character, and this is good reason for supplying to them a smaller proportionate number of attendants, but it is no reason whatever for providing a smaller number of doctors. A wildly maniacal patient requires for his supervision and control more attendants than a quiet and harmless one, but he is not more difficult to treat medically, nor does his medical treatment occupy a longer time; and, on the other hand, while the madness of a maniac is "gross as a mountain, open, palpable," the madness of a quiet, intelligent melancholiac may take hours, aye, days to discover. Again, one sane person among a crowd of maniacs is distinguished with comparative ease, but where all are orderly and easily controlled, as in these gigantic "imbecile" asylums, the difference is not nearly so conspicuous, and being therefore the more easily overlooked, additional provision, rather than diminished provision, should be made to insure its discovery. The wisdom and liberality which distinguish the management of these, no less than of our county asylums, renders us hopeful that so great a blot on their administration only requires to be rendered manifest in order to be removed. We do not speak of the gain to science—to our knowledge of insanity—that would be likely to result. We are fully aware that the governing bodies of asylums are entrusted with funds, not for the advancement of science, but for the care and treatment of the insane; and it is on this ground that we appeal to them. The truest, the most rigorous economy is spelt—*efficiency*; and we have no sort of doubt that the cost of an increased medical staff would soon be repaid by the increased number of patients discharged, and by the reduction of the average time of residence.

To return to the Report of the Willard Asylum. We learn from it that the Superintendent was granted four months' leave of absence in the year for the purpose of visiting this country and the continent of Europe; and our asylums and their management appear to have impressed him as favourably as they have impressed other American physicians. Like his *confrères*, Dr. Chapin speaks in terms of candid admiration not only of the total absence of restraint in the treatment of our insane, not only of the excellent general administration of our asylums, but, what is more important, "of the comprehensive and uniform nature of the system of provision for the insane poor which has been established." "No one can fail," he says, "to be at once impressed with the great care which has been taken in Great Britain to define the position and relation of an insane person who is a panper in the legal sense." It is worthy of note that a whole page of the Report is devoted to "acknowledgments," from which it appears that it is a custom of the publishers and editors of many American newspapers to send copies gratis to lunatic asylums for the use of the patients—a custom well worthy of imitation, and one which we commend to the notice of our lay contemporaries.

INTERNATIONAL CONGRESS OF HYGIENE, 1882.

The fourth of these biennial gatherings was held this autumn at Geneva, under the presidency of the venerable and accomplished Dr. Lombard. As on former occasions, we cannot but regret the absence of representatives of our country, the birth-place of sanitary reform. So complete was the abstention of English medical men, that while honorary vice-presidents were elected from every other state, even including Servia and Bulgaria, Mexico and Brazil, there were not found any to represent Great Britain.

At the first sitting, M. Pasteur, after referring to his previous communications, gave an account of two new organisms that he had recently discovered—one in the saliva of man, and the other in the nasal discharge appearing at the moment of death in the "typhoid" of horses.

Last year he had described before the Academy of Medicine a microbe obtained from the saliva of a child dying of hydrophobia, which, while it gained in virulence by transmission through the bodies of guinea-pigs, lost its efficacy when rabbits were employed. At first he and others believed that they had found the bacillus of rabies, but further investigation had led him to the conclusion that only a few of the rabbits inoculated died of rabies, that others succumbed to septic poisoning, with abscesses and sloughing of the integuments, while some died purely from the action of the microbes. The true virus of rabies is not characterised by the presence of a bacillus, while the bacillus in question is found in the saliva not only of persons dying of very different diseases, but even of those in perfect health, and, though accompanying the poison of rabies, has no relation to it.

Its cultivation is attended with some difficulty on account of its extremely short life, but is effected best in a mixture of veal broth and rabbit's blood. Exposed to the influence of the oxygen of the air, it, like other microbes, soon loses its energy; but cultivated in vacuo or in sealed tubes, it retains its virulence for several months. That of the horse typhoid is distinguished from all others by its figure-of-eight form, and communicates to rabbits a "veritable typhoid," with the usual anatomical lesions, fatal in twenty-fours, and is also "attenuated" by exposure to air. M. Pasteur described the method of cultivation he was obliged to adopt in order to seize the moment in its life-cycle when the virulence was most pronounced.

Dr. Varrentrapp gave an interesting account of the holiday colonies for weakly, but not actually sick, children, recently established in several parts of Germany and Switzerland with most pleasing results; which Drs Pini and Cristoforis of Milan, and Lubelski of Warsaw, were able to confirm from their experience of like enterprises in their respective countries.

At the third sitting, Dr. Lombard introduced the subject of the hygienic, physiological, and therapeutic influences of high altitudes, which was taken up by Dr. Paul Bert detailing his own observations on the increased amount of hæmoglobin, and corresponding capacity of the blood for oxygen, in men and animals resident at great elevations. These have, however, been so freely discussed in our pages, that it is needless to repeat them here.

In the sectional meetings, one of the most important contributions was that by M. Proust on the *rôle* of the Mecca pilgrimages in the propagation of cholera, with special reference to the epidemic of 1881. Dr. Proust began by observing that the cholera was not developed spontaneously in the Hedjas; and travellers, as Nieburh and Burckhardt, who previously to the cholera invasion of 1831 described the diseases of Arabia, never mention it. But the peculiar circumstances of the city of Mecca are powerfully conducive

to the intensification and spread of the disease when by any accident it has been introduced. So far as regards its importation from India, he considered that the provisions of the Native Passengers Act fully satisfied the recommendations of the Conferences of Constantinople and Vienna. But whenever cholera has appeared at Mecca, the most rigid precautions must be taken against its introduction into the Levant. These need not interfere with legitimate commerce, or be applied to the well-equipped lines of steamers traversing the Red Sea, but solely to the vessels which carry the wretched pilgrims from Jeddah to Suez. Since 1865, when cholera invaded Europe by this route, the establishment of a quarantine at El Ouej had been successful on three several occasions—viz., in 1872, 1875, and last year—in averting a recurrence of the epidemic in Europe.

An elaborate essay by Dr. Arnould, of Lille, on the Etiology and Prophylaxis of Typhoid Fever, led to a short discussion, in the course of which M. Duplessis, a veterinary inspector, of Paris, described several outbreaks of the disease called typhoid among the horses of the French Army when enteric fever prevailed among the troopers. Although the equine disease was more fatal than the human, he could not but admit a certain analogy between the two, and after M. Pasteur's account of the peculiar microbe in the horse he would urge a search for the same bacillus in man. M. Proust considered the number of various bacteria alleged to have been found in typhoid fever as evidence that we were still as far from having discovered the real cause as ever.

A debate on the use and abuse of alcohol elicited nothing new; but Pastor Rochat, of Geneva, mentioned the case of a village in the Bernese Jura, where, after 200 of the male population, half of whom had been inveterate drunkards, took the pledge, industry revived, and the farms, which had for years depreciated in value, were fast bought up by the abstainers.

Dr. Vallin, Professor of Hygiene at the Medical School of Val de Grâce, read an exhaustive essay on the subject of disinfection, alluding to the legislation in force in different countries on the notification of infectious diseases. He summed up his conclusions in thirty-four propositions, in which he gave a complete scheme of "model by-laws," and instructions for the practical employment of heat and of chemical disinfectants, and especially insisted on the illusory character of much so called disinfection, particularly in regard to the difficulties shown by Koch and Wolffhügel to attend the destruction of *spores*.

Colonel Dr. Ziegler, of the Swiss Army, excited considerable interest by a highly scientific and ingenious demonstration of the evils of the conventional form of boot, and a description of one which would fulfil the requirements of anatomy. He noted the improvements already made in the boots of several European armies, and appealed to his medical brethren everywhere to urge the adoption of a perfect pattern in armies, police forces, etc., as well as to educate the trade and public to an appreciation of the advantages of a really anatomical form over the monstrous deformities imposed by fashion.

As at Turin, in 1880, the question of cremation was discussed with almost entire unanimity, the resolution carried at that Congress, calling on the governments of every country to remove the legal obstacles to its practice, being again passed without a dissentient voice.

Dr. Sormani, of Pavia, gave, *viva voce*, a *resumé* of a voluminous report on the mortality of the armies of every European nation, illustrated by graphic tables. The remarkable diversity in the mortality from typhoid, which for every 1000 men is, in France 3·3, in Italy 2·0, in Austria 1·6, in Prussia 1·0, and in England only 0·3, was attributed by M. Tollet to the differences in the construction of barracks, M. Tollet paying a high tribute of praise to the improvements in this respect carried out in recent years in Great Britain. M. Vallin discussed the influence of conscription and of voluntary enlistment on the general physique of recruits, and pointed out a fallacy in Dr. Sormani's estimate of the health of troops, drawn from the deaths only, by calling his attention to the proportions of men invalided, which was sometimes in inverse ratio to that of men dying in the service. Suicide, Dr. Sormani showed, was more frequent in the English than in the French Army, and while on the increase in Austria, was steadily diminishing in Prussia. The frequency of heart disease in the English Army called for explanation; that from malarial fevers in Italy was easily accounted for. Dr. Ennes, of Lisbon, remarked on the high mortality from phthisis among the garrison of that city, where typhoid fever was rare. Dr. Sormani, in reply to M. Vallin, admitted the influence of early invaliding in reducing the general mortality, but reminded the meeting that the same objection could not be urged against his conclusions from the death-rate from small-pox, typhoid, and other acute diseases.

The discussion on the sewerage of towns engaged the section for three whole days—MM. Durand-Claye, Trélat Brouardel, and Vidal repeating their arguments *pro* and *con* on the various systems. To Englishmen their conclusions would present nothing new, the ignorance of the majority of Frenchmen on these matters being really amusing.

Dr. Varrentrapp, of Frankfort-on-Main, perhaps the highest authority on the Continent, read an able paper on the sanitary results of the sewerage of several of the larger German towns, with special reference to Frankfort, which, from being one of the worst, is now second to few of its size in the world—the general mortality being at present but 19 per 1000 in a population of 140,000. Although the works are not yet completed, the mortality per 1000 from typhoid fever has been reduced from 0·85 to 0·11. The system adopted is that usual in England, the single system, or as the French call it, "tout à l'égout," with frequent periodic flushing. So perfect is the construction of the sewers, that though the fall in the main sewer is only 1 in 2000, the passage of the sewage from the most distant closets to the outfall is performed in an hour and a half, and no deposit takes place. It is very rarely that the water company is asked for a small additional supply, and during the whole period of fifteen years that it has been in operation it has never once been necessary for a man to enter the sewers with shovel or other implement. Water-closets are not compulsory, but there are already 25,000. Dr. Varrentrapp triumphantly demolished the chimeras of his French opponents, insisting that the stagnation of the Paris sewers was owing to faulty construction, and that the discredit attached to town sewerage in France arose from the neglect of ventilation and of any attempts at cutting off the house-drains from the sewers. In this he was ably supported by Mr. A. Smith, of London, who, besides confirming and adding to the statistical results obtained in Leeds, Glasgow, Croydon, and other English towns already quoted by Dr. Varrentrapp, gave the meeting a clear explanation of the principles on which sewers and house-drains ought to be constructed, and entered fully into the questions of ventilation, interception, and unsiphoning. We trust that these two admirable addresses will be appreciated and lead to more rational practice in other countries.

Dr. Cohn, Professor of Ophthalmology at Breslau, was also absent, and the conclusions only of his paper were read, in which he urged the importance of a regular medical inspection of schools, and defined the duties of the inspectors, as regards alike the sanitary condition of the buildings and the health of the individual children. The subject seems

well worthy of serious consideration. The question of the injurious attitudes assumed by children in writing, and their influence in inducing lateral curvature and other deformities, was taken up by Dr. Dally of Paris, and Dr. Roth of London, whose labours in this department are well known in this country.

In the department of demography, nearly coinciding with what we call vital statistics, the communications were too numerous for even a notice of their titles. The most suggestive were one by M. De Nesselrode (a grandson of the great statesman), on the principles and limits of demography; and one by Dr. G. Bertillon, of Paris, indicating the difficulties and fallacies incident to all statistical inquiries—especially the necessity of knowing the number of individuals capable of marrying, of dying of particular diseases, etc., before drawing any valid conclusions from the number of marriages, deaths, etc., as well as of distinguishing the proportion of individuals of each age in any population. The latter point is pretty well appreciated among us since the publication of Dr. Rumsey's "Fallacies of Statistics," but the former has not as yet received the attention it deserves.

A sanitary exhibition was opened in connexion with the Congress, and the graver business was relieved by a variety of entertainments and excursions.

THE WEEK.

TOPICS OF THE DAY.

WANT of space last week compelled us to omit a notice of the visit of Her Majesty the Queen to the Royal Victoria Hospital, Netley, for the purpose of decorating the sick and wounded soldiers recently returned from Egypt, and now under treatment in that establishment. Her Majesty was received, on the 29th ult., by the whole staff of the Hospital and School, including Colonel Farmer, K.C.M.G., Surgeon-General Holloway, C.B. (the principal medical officer), Surgeon-General Longmore, C.B., Inspector-General Maclean, C.B., Professor Aitken, Surgeons-Major McCarthy, Dobson, Cherry, Jobson, and Boileau. The Queen first visited the medical division, where the cases were severally pointed out by Surgeon-Major Cherry. Of the 270 invalids at Netley, the greater number, nearly 90 per cent., are suffering from sickness contracted in the recent campaign, and not from wounds received in action. During twenty years up to the present time, Netley Hospital has been almost entirely free from typhoid fever, only two or three cases having occurred there in all that time; but since the Egyptian campaign more than sixty patients suffering from that disease have been admitted. These fever cases were not visited by the Royal party. Having finished the inspection of the medical wards, Her Majesty next ascended to the surgical division, through which she was conducted by Surgeon-Major Tobin. Some of the wounded men were unable to rise from their beds, and these patients had their medals pinned to the fronts of their shirts by the Queen. Great interest was taken by Her Majesty in many of the cases, and she frequently stopped to ask questions of the sufferers. Those of the wounded who were sufficiently advanced in convalescence to be paraded in the corridor were decorated by Her Majesty in that part of the building. The Royal visit occupied altogether rather more than an hour, at the expiration of which time the Queen returned to Windsor. Until a comparatively recent period, much inconvenience resulted from the plan of bringing invalids from the railway-station to Netley Hospital across the deep valley which intervenes. This evil has been in a measure rectified by the erection of a shed on the line at a spot nearer the hospital, and communicating with it by a short stretch of almost level ground. It is, however, suggested that by laying a short line of rails along this last portion the sufferers might be brought yet more easily from their ambulances in the train to the wards of the Hospital; and if this were carried out, there would scarcely be anything left to desire in the arrangements of the Royal Victoria Hospital.

Whether legal knowledge increases or not, we cannot pretend to judge, but surely the costliness of "going to law" increases: for it appears that at the present time almost all legal decisions, in cases of any importance at least, are appealed against, and that it is almost impossible to guess to what extent the judges in the different courts may not differ from each other in their interpretation of the law. When the difficulty between the Corporation of Manchester and the Countess Ossulinsky as to the price of certain property belonging to the latter required for the Thirlmere water scheme was referred to arbitration, it might have been supposed that the decision of the arbitrator would be accepted as final. Recently, however, in the Queen's Bench Division of the High Court of Justice, the Attorney-General moved, on behalf of the Corporation, for a rule to set aside the award of the arbitrator, as based upon wrong legal principle. After hearing the learned Attorney-General on this and other points, the Court granted a rule *nisi*.

The Birmingham Town Council is at the present time occupied in considering the draft of the new Birmingham Corporation Bill for consolidating and amending the various Acts and Parliamentary Orders affecting the powers of the Corporation. These powers relate to sanitary matters, the regulation and control of the parks, municipal buildings, free libraries, and other property of the Corporation, the conduct of the gas and water departments, the Closed Burial Grounds Act, together with a number of miscellaneous regulations and provisions. It is stated that it is absolutely necessary that the Bill should be deposited in London by the 16th inst.; and it is also necessary to hold a meeting of the ratepayers, which must be subsequent to the full consideration of the Bill by the Council, and which must also be a sufficient time before the 16th inst. to allow of a poll by the ratepayers, supposing such a poll be demanded. The Bill will contain nearly three hundred clauses.

The total number of provisional orders for which applications relating to the electric light will be made to the Board of Trade on or before the 21st inst., is 141. For the most part the applications will be made by corporations and other local bodies. Only two vestries—those of St. Pancras and Richmond (Surrey)—appear likely to apply for the necessary authority for supplying electricity in the areas within their jurisdiction. The monster applicant amongst the joint-stock companies appears to be the Metropolitan (Brush) Electric Light and Power Company, who will apply for some twenty-four provisional orders, including in their embrace parts of the metropolis, and large suburban districts, north, south, east, and west. As regards the provinces, authority for the exercise of similar powers will be asked for by about seventy of the principal towns in England, amongst them being Liverpool, Manchester, Leeds, Bradford, Sheffield, Bolton, Halifax, Leamington, Plymouth, Brighton, Dover, Portsmouth, Bath, Cambridge, Colchester, etc.

As was only to be expected, after the recent inquiry at Norwich, renewed opposition to the Vaccination Act has to be recorded. Mr. R. W. Filby, corn merchant, was recently summoned for neglecting to have his child vaccinated. Mr. Burgess, on behalf of the defendant, contended that vaccination could not be carried out in that town, as the Board of Guardians had not provided a vaccination station. Until such a station was provided, the Act became a dead letter. Further, he submitted that the injuries and fatalities to

children arising from vaccination during the last five years in Norwich also afforded a sufficient reason for parents not having their children vaccinated. In the end the magistrates intimated that they had carefully considered the circumstances, and had come to the conclusion that they could not allow the objection of Mr. Burgess. They were, however, anxious to be put right if they were wrong, and would state a case for a superior court if it were demanded. As to the charge against Mr. Fiddy, no answer had, they said, been given to it, and they therefore felt that they were bound to fine him half a crown and costs.

At the recent annual meeting of the Surgical Aid Society, held at the Cannon-street Hotel, the Lord Mayor, who presided, explained that the charity was established twenty years ago, to supply mechanical supports of all kinds to the afflicted and deserving poor. Since its commencement 36,396 patients had been assisted, of whom 1169 were relieved during the past twelve months. The appliances supplied to the poor ranged in value from 3s. to £20. He noticed the liberal way in which the City companies contributed to the charity, and expressed a hope that the benevolent public would subscribe more generously than hitherto, not only to enable the Society to pay its way, but also to extend its usefulness, of which there was great and pressing need. The adoption of the report and balance-sheet was moved and seconded; the latter showed the income during the past year to have been £5492, including a legacy of over £1300. The Treasurer (Mr. W. Gray), in returning thanks for his re-election to that post, remarked that no deserving case had been kept waiting an undue time for the needed appliance through inability to obtain letters; as far as possible, prompt relief was given in every case.

A deputation, introduced by Mr. Bryce, M.P., recently waited upon the President of the Local Government Board for the purpose of urging that an official inquiry should be instituted as to the results of the system of training of pauper children in special schools, and as to the efficiency and possible development of the plan of boarding out; asking that, pending the proposed inquiry, the further provision of buildings for the reception of pauper children should, as far as possible, be stayed. In reply, Mr. Dodson pointed out that the boarding-out system applied not only to orphans, but to children deserted by their parents. So far from placing any obstacles in the way, his Board had always been ready to stimulate the establishment of committees for extending the plan of boarding out. He was not insensible to the difficulties attending large schools; but, at the same time, he must explain that, whatever might be the relative advantages of the two systems, the boarding-out system must, from its very nature, be very limited. The great mass of the children throughout the country had to be provided for, and it had not been shown how the boarding-out system could be made more than supplementary to some general system. He understood the prayer of the deputation to be that the Local Government Board should hold its hand in sanctioning the establishment of any more large schools. In reply to that, he might say that the boarding-out system was at the present time under his consideration, with a view to seeing how far it could be stimulated and extended. The opinions expressed by the deputation showed the interest felt in the subject, and also testified that he had correctly gauged public feeling in regarding it as one to which considerable importance was attached.

The Corporation of London have agreed, on the motion of Mr. J. Bedford, to contribute towards the costs of the legal proceedings promoted by Mr. Dobbs for obtaining a judicial determination of the meaning of "annual value" as adopted by most of the water companies as the basis of charge upon which water-rates have to be levied. It is expected that the appeal of the Grand Junction Company against the decision of the High Court in May last will shortly be heard.

SIR THOMAS WATSON, BART.

On Saturday and Sunday last the state of this revered physician was such as to make his friends think that the end was close at hand. On Monday, however, he rallied somewhat; his temperature ranged between 96·2° and 97°. This morning we learn that he had passed a restless night. He takes very little; his pulse is just perceptible, and his temperature 99°. It seems but too probable that by the time these notes are before our readers Sir Thomas Watson will be at rest.

LONDON HOSPITAL MEDICAL CLUB.

On Thursday evening, November 30, a convivial meeting of the London Hospital Medical Club was held at the Holborn Restaurant. Mr. James E. Adams, one of the Surgeons of the Hospital, presided, and was supported by a large number of members and their friends, in all sixty-three. Among those present were—Mr. Jonathan Hutchinson, Dr. Langdon Down, Mr. Spencer Watson, Drs. Christie, Stephen Mackenzie, Sansom, Turner, Gilbart Smith, and Warner, Mr. Waren Tay, Mr. Treves, and several other members of the staff of the Hospital; Mr. Munro Scott (Warden of the College), and Mr. Rivington (Hon. Secretary and Treasurer). The ordinary business of the Club, including the admission of several new members, was transacted at a preliminary meeting, and after an excellent dinner and the loyal toasts, the Chairman spoke of the value of the Club in promoting union and good feeling amongst those who had worked and were working at the great charitable and educational institution with which they were all connected. The Club was founded in 1838, but an anniversary meeting of the gentlemen educated at the London Hospital was held as long ago as 1792, and very likely before that time, as the London Hospital Medical School was the first complete medical school in the metropolis. Special interest attended the present meeting from the fact that the chairman's father, an able and well-known surgeon and lecturer, Mr. John Adams, was for twenty-four years the popular secretary to the Club. Various toasts followed, and altogether the meeting was a very pleasant and successful one.

THE DIAGNOSIS OF PULMONARY SYPHILIS.

In the *Wiener Medizinische Wochenschrift*, No. 46, an abstract of an alleged case of pulmonary syphilis may be found recorded by Dr. Güntz. The previous history of the man showed that two years after infection an eruption appeared on the skin, and a year later cutaneous ulceration was noted; five years after infection the lung trouble was first noticed. The left lower lobe was affected with a circumscribed infiltration, the symptoms being cough and shivering. The dulness to percussion had not disappeared after a period of eighteen months' good general health, at the end of which the patient began to spit blood. This was soon followed by an increase in the size of the infiltrated area. For six days the expectoration consisted of chocolate-brown lumps; later, muco-purulent sputa were brought up. The pulse was 90; the breathing 26 to 32 per minute; but there was no fever. The physical signs underwent no appreciable change; there was dulness and pectoriloquy with some râles. The sputa were hardened in alcohol, and had become tough and membranous—some, nevertheless, were lighter than water. The microscope revealed a fibrillated stroma, with finely granular *débris*, old and young cells and nuclei, here irregularly scattered, there arranged in groups. No pulmonary

tissue or vessels were detected. Some sputa were sent to Lancereaux, who also regarded the microscopic elements as of a gummatous nature.

THE HEALTH OF THE TROOPS IN EGYPT.

THE Cairo Hospital statistics for the five days from the 22nd to the 26th ult., both inclusive, were—307 fresh admissions, 111 discharged to duty, 121 removed elsewhere, 7 deaths, and 767 remaining under treatment. The number of patients in the military hospitals throughout Egypt on the 27th ult. was 1133, out of a total force of 12,536, or rather over 9 per cent. Although the returns show an improvement in the health of the troops, the large number of fresh cases coming in must be regarded as a serious feature. The returns for the last four days of November are as follows:—215 new entries, 70 discharged to duty, 168 removed elsewhere, and 4 deaths, leaving 740 under treatment in the Cairo hospitals. The returns for the entire month of November show 1956 entries to hospital, with 55 deaths. For the first five days of December the figures are 284 fresh entries, 6 deaths, 856 patients remaining. We are glad to see it stated that the cases now coming in present less severe forms of illness. The large numbers still in hospital are partly explained by the consideration that patients who have suffered from enteric fever are unfit for duty for several months, even though convalescent. The return for the whole force shows 2000 men on the sick-list, out of a total of 13,703; but from this about 600 may be deducted as convalescent, leaving about 10 per cent. ill. The proportion is equal among officers and men; but the cavalry and artillery have suffered more than the rest, having about 25 per cent. sick. The hospital arrangements in Egypt have received the careful attention of Sir Andrew Clarke, who has also visited Lady Strangford's hospital. This latter institution, after doing much valuable work, appears likely to be compelled to close its doors owing to the want of funds, unless the British public should see fit to respond at once to the urgent appeal put forward by Lady Strangford for assistance.

THE ROYAL COURTS OF JUSTICE.

THE following members of our profession received invitations, and were present, at the opening by Her Majesty of the Royal Courts of Justice, viz.:—Sir James and Lady Paget, Sir George Burrows, Sir Henry Thompson, Sir William Muir, Professors Flower, Huxley, and J. Marshall, Mr. Spencer Wells (President of the Royal College of Surgeons), Mr. Francis Mason (President of the London Medical Society), etc.

THE ACADEMY OF MEDICINE IN IRELAND.

THE amalgamation of the four medical societies heretofore existing in Dublin—namely, the Medical, the Obstetrical, the Pathological, and the Surgical—into one body, called the Academy of Medicine, having four sections corresponding to the previously existing societies, has been carried out, and the first sectional meeting took place on the evening of Friday, December 1, in the Royal College of Surgeons, Stephen's Green, Dublin. The section which met was the Pathological. Dr. J. Mallet Purser, Professor of the Institutes of Medicine in Trinity College, and President of the section, occupied the chair, and delivered an opening address, after which several interesting communications were read. There was an extremely large attendance of members. The next meeting will be that of the Surgical Section, which is presided over by Mr. J. K. Barton, President of the Royal College of Surgeons. The President of the Obstetrical Society is Dr. Denham, and the Medical Section will be presided over by Dr. William Moore, President of the King and Queen's College of Physicians. The hon. secretaries are—Pathological Section, Professor E. H. Bennett; Surgical, Mr. Stokes; Medical, Dr. A. N. Montgomery: and Obstetrical, Dr. Neville. Dr. William Thomson is general secretary of the Academy, and will edit its *Transactions*, which will be published in a volume at the end of the session.

SUCCESSFUL REMOVAL OF DISEASED SPLEEN.

DR. B. CREDÉ, of Dresden, has lately put on record a case in which he removed successfully from a bricklayer, forty-four years of age, a spleen containing cysts (*Deutsche Med. Zeitung*, No. 44). The patient had received, ten years ago, in the left hypochondriac region, a blow from a brick, which had caused him some pain for five days. A year before the operation a tumour the size of a fist was observed in the left side of the belly, which grew at first slowly, and later on more rapidly, so as, at last, greatly to interfere with the patient's movements. On the day of operation (September 23, 1881) the belly is described as being greatly arched; a very movable fluctuating tumour, the size of a large child's head, adherent at its upper part and not very tender, was felt in the left side of the abdomen. As the swelling was apparently not adherent to the skin or intestines, the operator saw no reason why an exploratory laparotomy should not be performed with a view to radical operation, should the case be favourable. The diagnosis rested between cystic spleen and hydronephrosis. Laparotomy was done, the incision being made to the left of the rectus abdominis, reaching from the ribs to the anterior superior spine of the ilium. A cyst presented and was tapped, a great deal of clear-yellow slightly albuminous fluid being let out. Finally, seeing that this cyst was in the spleen, it was decided to remove that organ. The wound was treated antiseptically, but not drained. Healing took place without any bad sign, and the patient slowly gained strength. The tumour weighed about a pound (without the cystic fluid). Four weeks after the operation, doughy painful swellings of all the lymphatic glands were observed, which subsided after four months. Eight days after the operation the number of white lymph-corpuscles in the blood was found to be increased. Gradually the proportion of white blood-cells to red blood-discs returned to the normal, and no difference was found at the end of four months and a half. The patient was in good health ten months after the extirpation of his spleen.

THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-seventh week of 1882, terminating November 23, was 1071 (579 males and 492 females), and among these there were from typhoid fever 79, small-pox 10, measles 10, scarlatina none, pertussis 3, croup and diphtheria 34, erysipelas 7, and puerperal infections 2. There were also 48 from acute and tubercular meningitis, 197 from phthisis, 41 from acute bronchitis, 53 from pneumonia, 88 from infantile athrepsia (33 of the infants having been wholly or partially suckled), and 24 violent deaths (18 males and 6 females). The number of deaths registered during this week exceeds the mean of the four preceding weeks. The deaths from typhoid have diminished from 120 in the forty-sixth week to 79; but those from diphtheria have increased from 27 to 34, and from small-pox to 10 in place of 6. There were admitted into the hospitals only 221 cases of typhoid, instead of 294 cases during the preceding week; while 22 cases of small-pox were admitted, instead of 15. In spite of the diminution of the number of deaths from typhoid, the general mortality of the week exceeds that of the forty-sixth week. This has arisen, not from an increase in the deaths from acute disease—which, in fact, are on the

decrease,—but from that of chronic affections, upon which the seasonary influences begin to manifest themselves. Thus there were during the present week 77 more deaths than during the preceding one of persons of sixty years of age and upwards—chronic diseases of the organs of respiration and circulation and of the nervous system being those which have shown the greatest increase. The births for the week amounted to 1242, viz., 607 males (448 legitimate and 159 illegitimate) and 635 females (462 legitimate and 173 illegitimate): 108 infants were either born dead or died within twenty-four hours, viz., 58 males (44 legitimate and 14 illegitimate) and 50 females (30 legitimate and 20 illegitimate).

SARCOMA OF THE SPINAL CORD.

In the *Archives de Neurologie* for November (No. 12), Professor Adamkiewicz has recorded a case of sarcoma of the spinal cord which has many features of great interest. When first seen the cord presented a fusiform swelling, extending from the level of the fifth to that of the seventh cervical nerve on the left side. The anterior and posterior roots of the nerves coming off from this region were found to be perfectly normal. On section, the swelling was ascertained to be due to the presence of a firm, white, circular, somewhat translucent, new growth, surrounded by a thin investing membrane, and readily distinguished from the surrounding healthy nervous structures. On microscopical examination the tumour was shown to be a typical sarcoma —*i.e.*, it was composed of young connective-tissue cells, and it appeared to have originated in the neuroglia of the anterior cornu on the left side. The parts had undergone such compression from the presence of this tumour that, it is stated, at the level of the greatest diameter of the tumour the lateral column of the cord in the neighbourhood of the posterior cornu had almost completely disappeared, and that the anterior and posterior columns were reduced to almost one half. The grey matter was reduced to from one-half to one-third of its normal size. On more minute examination of this area it was found that the grey matter was transformed into a bundle of parallel fibres, and that the multipolar cells were transformed into bipolar cells, their long axes being at right angles to the axis of the spinal cord, and their nuclei round instead of oval. In the white matter the nerve-tubes and their cylinder-axes could be recognised, considerably diminished in size. We have already noted that the anterior and posterior nerve-roots were healthy, no abnormality could be discovered in the muscles of the left arm, and there was no history of anything like loss of power during life. Thus, then, this case demonstrates that a tumour (at its greatest diameter about three times the size of the opposite anterior cornu) can be formed and give rise to such compression and distortion of the nerve-elements of the spinal cord as we have just described, without in any way interfering with their functions, and without setting up myelitis. Professor Adamkiewicz does not enter into any speculations as to the probable duration of growth of this tumour, but, as some crystalline concretions were found embedded in its substance, it would be reasonable to infer that the growth was of some standing. It is worth mentioning that the boy came under observation for, and died from, hydrophobia, and that the discovery of the tumour was totally unexpected.

THE MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

After an existence of over sixty years, this ancient Society have determined to make the results of their labours more generally known to the public, and have issued the first annual volume of their *Transactions*. On glancing rapidly through its pages, we cannot help feeling some regret that this is not the sixty-first volume, for if this is to be taken as a sample of the work of the Society during one session—and we presume there is no reason to think that one year differs very much from another—then we cannot help regretting that the work of previous years has not been permanently recorded, as we feel that many papers of great merit have thus been withheld from the public. We notice that the discussions on the papers are also reported, a plan which does not find much favour in London at present. The volume is well printed and nicely bound, and in every way worthy of the Society.

ALLOWANCE FOR HOSPITALS IN ESTIMATING DEATH-RATES.

It is a common practice for medical officers of health, in estimating the death-rates of their districts, to deduct from the total number of deaths those which have taken place in such charitable institutions within their bounds as admit patients from other localities. It is obvious that such a deduction will make the death-rate seem lower than it really is, unless the number of patients belonging to the district, but dying in institutions outside it, is also known and included. On this subject, the following remarks by Dr. Bate, the Medical Officer of Health for Bethnal Green, which appear in his report for 1881-82, seem to us worth attention:—"The gross number of deaths includes 172 non-parishioners who had been placed for purposes of medical treatment in the various public institutions within our bounds. It has been my custom in past years to exclude these from the total numbers, and, in order to compensate for the deaths of our own parishioners who die in other metropolitan hospitals, to add an estimated number found by calculating a hospital death-rate for the whole metropolitan population, and then apportioning its share to this parish. I find, however, that the numbers struck out and the numbers added have in past years so nearly balanced one another, that I have this year decided to retain the deaths of non-parishioners to counterbalance the extra-parochial ones."

EXTIRPATION OF THE GALL-BLADDER.

Dr. Langenbuch, of Berlin, has added to the triumphs of modern surgery by successfully removing, by operation, the gall-bladder for chronic cholelithiasis (*Berliner Klinische Wochenschrift*, No. 48). The idea that this organ could be removed without endangering life was supported by its known congenital absence in some cases, and by the fact that elephants and horses do not possess the receptaculum for bile. The practicability of the operation was tested on the dead body. The value of the procedure as a remedy rests on the teachings of modern pathologists (Frerichs, Schüppel) that the gall-bladder is the seat, *par excellence*, of the formation of biliary calculi. The necessity of the surgical interference was thought to be instanced by the occurrence of cases where the individual seemed to pine away, simply as a consequence of repeated pain, even under the influence of morphia, dietetic, and other modes of treatment. Further the insidious method and manifold directions in which gall-stones may migrate must be borne in mind. Dr. Langenbuch having thus thought out and worked at the subject, an opportunity for putting his conclusions to a practical test was not long wanting. A man aged forty-three, who had been greatly reduced in health, strength, and flesh by repeated attacks of biliary colic, consented to become the first on whom the operation of extirpation of the gall-bladder should be performed. A T-shaped incision through the layers of the abdominal wall, the cross piece corresponding to the lower border of the liver, and the vertical part being parallel with the outer border of the right rectus abdominis, was first made, and the peritoneal cavity

laid open. The gall-bladder was then seen, its duct found and ligatured by catgut, and the bile drawn off from the bladder by a Pravaz's syringe; the organ was then carefully dissected off the under surface of the liver. We have not thought fit to give the details, because a surgeon wishing to do the operation would, or ought to, first practise it on the dead body. In Langenbuch's patient there was a little venous bleeding from the under surface of the liver; this was stopped by catgut ligature, and caused no trouble. There was apparently no escape of bile into the peritoneal cavity. The patient did extremely well after the operation, and, in fact, recovered without any bad symptoms, if we except a little dry pleurisy on the fourth day. There had been no return of pain up to the middle of November, and the patient had gained very considerably in strength and weight. It may be mentioned that there were only two gall-stones, each of the size of a millet-seed, in the gall-bladder, and that there was some difficulty in getting an action of the bowels after the operation. So far as we know, this operation has never been previously carried out or even suggested. The surgery of the gall-bladder seems to have been limited to dilatation of fistulæ and the extraction of stones, with the opening of abscesses. *A priori*, it might have been thought that the excision of the gall-bladder would not have influenced the production of gall-stones. It might have been argued that there was a vice in the bile secreted which led to the crystallisation out of biliary calculi, this habit no doubt being favoured by the existence of places wherein it can stagnate, and where it may meet with agencies (*e.g.*, mucus) which would tend to separate its elements; and these considerations may serve to explain a good result, such as we record. It need not be said that the future history of Dr. Langenbuch's case will be looked for with great interest. The operation will probably only be called for in a small minority of cases, and, at all events, should not be practised until all other measures have failed.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

At a special meeting of this Society, held on Thursday, November 30, at the King and Queen's College of Physicians in Ireland, Kildare-street, Dublin, the following resolutions were adopted:—1. "Resolved that, in consequence of the formation of the Academy of Medicine in Ireland from among the members of this Society and of the other medical societies of Dublin, with the President of the King and Queen's College of Physicians as *ex officio* President of its Medical Section, the Medical Society of the King and Queen's College of Physicians in Ireland is hereby dissolved." 2. "Resolved, that the Honorary Secretary be requested to inform the President and Fellows of the King and Queen's College of Physicians in Ireland that the Medical Society is now dissolved, and that the books of the Society be entrusted to the care of the College." The Medical Society, which has thus ceased to exist, had a chequered history extending over sixty-six years. It was instituted in the year 1816 as the "Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland," and was reconstituted in the year 1864 under the title of the "Medical Society of the King and Queen's College of Physicians in Ireland."

THE EFFECTS OF EXTENSIVE BURNS ON ANIMALS.

Experiments on the influence of widespread burns on the animal organism (dogs) have been made with a rare industry by Dr. Trojanow in Professor Paschutin's laboratory at St. Petersburg. We collate the following facts from an abstract by Dr. Petersen in the *Deutsche Medizinal-Zeitung* of September 21, 1882. The temperature of the body mounts immediately after the burning, and not till a few hours before death (should this ensue) does it fall rapidly. Calorimetrical observations show that not only the production of heat, but also its expenditure, is lessened. These facts go against the view of Falk, that death is due to the cooling, owing to the loss of heat. The quantity of urea, and also of chlorides, falls off quickly and progressively, and the former takes place regardless of the appetite of the animal. These considerations show that the "exchange of material"—Michael Foster's metabolism—is diminished, and tell against the theory of Awdakow, according to which death ensues because of the interference with secretion, whereby deadly materials accumulate in the blood, and so poison the economy. Against this also is the fact that some of the blood from the burnt animals, transfused in great quantity into the veins of a healthy one, does not produce any bad effect. This experiment likewise refutes the doctrine of Catiano, published in a recent number of *Virchow's Archiv*, to wit, that death is due to the development of prussic acid; indeed, were this the case, death ought to ensue rapidly, and not gradually, as actually happens. The number of red discs really decreases after the burning, but relatively increases owing to the diminution of the quantity of blood-plasma. The specific gravity of the blood increases after the experiment, but never to such a degree as in cholera. Tappeiner's view, that the fatal result is due to the thickening of the blood, is therefore not supported. The loss of water in the first hours after the application of heat never goes beyond 2½ per cent., and then soon falls again. Transfusion with a view to supply oxygen (as suggested by Lesser) led to no results. The blood corpuscles for the most part maintained their form, and the few distorted ones disappeared after twenty hours. The quantity of urine was always lessened; the degree of hæmoglobinuria present was dependent on the height and duration of the heat used, as was also the albuminuria, which was always present. Frequently tube-casts of degenerated epithelium were found. Generally, the alteration of renal structure was the most constant of all the morbid phenomena, and showed itself mostly as a parenchymatous inflammation and exudation between Bowman's capsule and the glomeruli.

PORRO'S OPERATION.

The dwarf upon whom Dr. Hodson performed this operation, as noticed in our columns last week, has, we are glad to say, gone on well without interruption since the operation—now eleven days,—and has apparently every prospect of recovery. The stitches in the abdominal walls were removed on Tuesday. The bodily temperature is now 99°, and the pulse 70.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A special general meeting of this Society was held on Friday, November 24, at 5 p.m., to confirm certain alterations of the by-laws that had been approved at a special general meeting held on November 3. The President (Sir George Burrows) took the chair. The chief alterations made in the by-laws were as follows:—The sum required to qualify as an honorary member was reduced by ten guineas; the proposals for membership and the declarations of the widows and orphans may now be signed by two registered medical practitioners, instead of by two members of the Society; the admission fee was abolished; the income of the widow eligible for relief was raised from £50 to £80, and certain powers were given to the directors to make extra grants under special circumstances; the age of the orphan eligible for relief was raised to sixteen years, and in the case of complete orphans to eighteen years, and the amount of income of orphans was also increased. In the case of a widow of a

member marrying, the son ceases under the new by-laws to have any claim on the Society.

NEURECTOMY OF INFERIOR DENTAL.

DR. SONNENBERG, of Berlin, has instituted a new operation for the excision of a portion of the inferior dental nerve, which he describes in the *Berliner Klinische Wochenschrift* for October 16. It will be remembered that the nerve in question enters its bony canal on the inner surface of the ramus of the lower jaw, under cover of the internal lateral ligament. Dr. Sonnenberg found in the dead subject that, having the head held strongly backwards, it was possible to reach the inferior dental nerve by a neat incision, which was begun one centimetre and a half in front of the angle of the jaw, and continued along the (in this position) ascending border of the body of the lower jaw for three to four centimetres, as far as the facial artery—an incision which corresponds roughly to the insertion of the masseter muscle. We may say that two centimetres and a half is an inch, as nearly as may be. This being done, the inner surface of the lower jaw-bone must next be cleaned up to the internal lateral ligament, which usually lies about two centimetres and a half from the angle of the jaw; the insertion of the internal pterygoideus must be separated from the bone; the ligament and nerve may now be felt, and with good light the latter can be seen in the bottom of the crateriform wound. Next a strong blunt-pointed hook must be conducted by the finger up to the ligament, and then somewhat upwards along the ascending ramus of the jaw, and at the same time inwards in the direction of the buccal mucous membrane. In this fashion the nerve is hooked up without touching the neighbouring artery, which lies very close to the bone. The lingual nerve is quite to the inner side and is not meddled with. The inferior dental so secured is very extensible, and can be drawn down towards the angle of the jaw, and a portion easily cut therefrom. The other methods (done either from the mouth, or by trepanning the lower jaw from the outside) are nothing like so good as this new operation, according to the author. The advantages are enumerated:—(1) The wound is the smallest possible; (2) the operation is done comfortably, provided the formal retraction of the head is thoroughly observed; (3) the bleeding is insignificant; (4) the capsule of the submaxillary gland is left intact, and so no burrowing of pus can take place there; (5) the nerve is easily found and brought forward alone; (6) a good piece can be excised, because the nerve can be drawn out so easily; (7) the wound is favourably situate for healing; (8) the scar is small, and in an unobjectionable place. Dr. Sonnenberg has operated on the living subject three times for neuralgia, with eminent success both as regards operation and relief from pain. Von Langenbeck has used this method of operating once; but the nerve was only strongly stretched, not excised. The relief from neuralgia seems to have been equally great.

It may be of some service to remind our readers that the Bradshawe Lecture at the Royal College of Surgeons will be given on Wednesday next, the 13th inst., at *three o'clock*, instead of four o'clock, the usual lecture-hour at the College. Sir James Paget, who will deliver the lecture, has chosen for his subject "Some Rare and New Diseases," as illustrated by the contents of the College Museum.

THE Paris correspondent of our contemporary the *Times* states that the Chamber of Deputies has passed a vote of 9000 fr. for the creation of a Chair of Medical Language and Literature at the Paris Faculty of Arts.

WE are informed that the late Dr. Peacock, so long connected as Physician and Lecturer with St. Thomas's Hospital, has left a bequest sufficient to establish a scholarship in the Medical School of the value of forty guineas. The scholarship will be tenable for two years on the same terms as those of the "Musgrove Scholarship," founded by the late Sir John Musgrove, formerly President of the Hospital, and will bear the title of "The Peacock Scholarship."

THE London *Gazette* of Friday, December 1, contains the announcement that the Queen has been pleased to order the appointment of John Watt Reid, Esq., M.D., Medical Director-General of the Navy, to be an Extra Member of the Military Division of the Second Class, or Knight Commanders, of the Most Honourable Order of the Bath.

PARLIAMENT was prorogued on Saturday, December 2, to Thursday, February 15 next. In the Speech from the Throne the Queen said—"The growth of the revenue, however, is sensibly retarded by a cause which must in itself be contemplated with satisfaction: I refer to the diminution in the receipts of the Exchequer from the duties on intoxicating liquors."

MEDICAL PARLIAMENTARY MATTERS.

HOUSE OF COMMONS—THURSDAY, NOVEMBER 30.

Mortality in the Bengal Gaols.—In reply to questions asked by Mr. O'Donnell in regard to the mortality in the Bengal gaols, the Marquis of Hartington said that since he had presented certain papers in July last the only additional information received on the subject referred to was contained in a recent dispatch from the Government of India. In consequence of a dispatch which he had addressed to that Government in May, a circular had been addressed to the various local governments, with a view to insure greater vigilance in the matter of mortality. The Government of India consider that the diet scales now in force are sufficient to keep the prisoners in good health, but their special attention was directed to the subject. They observe that the returns of death among the free population cannot be relied upon in the same sense as those of deaths in gaols, where every case of death is strictly recorded. The Government promise to send home annually a general review of gaol statistics. The Government of India are also making inquiries as to the ventilation and the overcrowding of the gaols, and as to the truth of a statement that the prisoners lie upon mounds of earth instead of upon beds.

Artisans' Dwellings.—Sir R. Cross asked the President of the Local Government Board whether his attention had been drawn to certain evidence given before the Committee on Artisans' and Labourers' Dwellings, 1881-82, as to the want of sanitary regulations with regard to the erection of such dwellings in the metropolis outside the jurisdiction of the Metropolitan Board; and whether he would consider the advisability of giving further statutory powers on the subject.—Mr. Dodson replied that under the Public Health Act, 1875, all urban sanitary authorities are empowered to make by-laws prescribing sanitary regulations with regard to the erection of dwellings, and any rural sanitary authority can have this power conferred on them. Sanitary authorities in the suburbs can in this way make regulations in some respects even more stringent than those contained in the Metropolitan Building Acts; and in many cases they had not only made by-laws, but had even shown commendable zeal in enforcing them. He would, however, consider, during the recess, whether it is necessary to give further powers on the subject to the sanitary authorities.

SATURDAY, DECEMBER 2.

Enlarged Hours for the Sale of Intoxicating Liquors.—Mr. Whitworth inquired whether the attention of the Home Secretary had been called to the fact that it had been the

practice in certain boroughs and cities, such as Sheffield and Norwich, for the magistrates to grant an extension of hours for the sale of intoxicating liquors, during the whole or part of the Christmas week, to all publicans applying for the same, and without regard to the position and neighbourhood of the public-houses; whether it was necessary for the applicants to apply separately for an extension, under the 26th section of the 29th and 30th Vic., c. 94; and whether Christmas week was a "special occasion," under the said section, justifying the magistrates in granting general extensions to all publicans.—Mr. Dodson replied that the Secretary of State's attention had not been called to the matter spoken of, and he had not had the opportunity of considering what the true interpretation of the statute might be in regard to the various legal points raised.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Barry on the Outbreak of Enteric Fever at Bangor.

In consequence of an extensive outbreak of enteric fever in Bangor and some of the neighbouring villages, Dr. Barry was instructed by the Local Government Board, on July 27 last, to institute an inquiry into the sanitary condition of the town, and with special reference to its water-supply. In the outset of his report Dr. Barry proceeds to describe the sewerage and drainage arrangements of the town, together with its water-supply and other sanitary details. It is not necessary to follow the description of these, which were found to be in many respects faulty; it will be sufficient to quote his own summary of the inspection:—"It may be gathered from the foregoing notes that ample provision exists in Bangor for favouring the spread of such a disease as enteric fever, which may be regarded as a type of the maladies which spread by means of infected sewer air and water." The earliest cases of enteric fever in either Bangor or the neighbourhood, which Dr. Barry could trace as having occurred this year, dated back to March 4 and the 8th and 27th of the same month. On April 19 a case was reported to have occurred on board the *Clio* training-ship, anchored in the Menai Straits. The Medical Officer of Health for the district also stated that isolated cases had come to notice from time to time for some years past at Bethesda. These facts show that enteric fever had existed in a sporadic form in Bangor and the neighbourhood for some time previous to the general outbreak. Dr. Barry was, however, unable to trace any connexion between them and the epidemic he was inquiring into. The first cases which appear to have a direct connexion with this occurred in the week ending May 23—one in Brick-street, Bangor, on May 17; and one on May 22 in Llwynrhandir, a house situated near the river Gasey, above the intake of the Bangor Waterworks. In the week ending May 30 no fresh cases occurred, but in the first week in June three persons were attacked in Garth. In the next week there were again no cases, but from June 15 to July 7 fresh cases were reported almost daily, until by that date no less than seventy-six cases had occurred in seventy households. There was a simultaneous appearance of the disease in various districts and streets, which suggested some common medium of infection, and the milk-supply was at once investigated; but the evidence promptly exonerated it. The evidence with regard to infection by means of sewer-air was also negative, at any rate in the earlier cases. Thus, up to July 7 the disease had appeared in all parts of Bangor, and in the three villages of Bethesda, Llandegai, and Port Penrhyn, which were totally unconnected with the Bangor drainage system or with one another, and in Glanadda, which was only connected in a slight degree. The next question considered by Dr. Barry was, whether any source of specific pollution in the general water-supply existed prior to the general outbreak in June and July, and this called attention to the case already mentioned at Llwynrhandir at the end of May. On June 15, the Medical Officer of Health, hearing that a suspicious case existed in the house, visited it; the existence of fever was denied, but Mr. Rees was satisfied that his suspicions were correct. He directed the inmates to bury all excreta, etc.; but, although they promised to do this, it was proved afterwards that they did nothing of the kind until a considerable period had elapsed. The drainage of this house is conducted by means of an open ditch direct to the river Gasey, into which it discharges at a point about 350 yards from the intake of the Bangor water-supply, the whole distance from the house to the intake being about 700 yards; and in this manner, no doubt, infected matter found its way into the filtering reservoir. As to the capability of the filtering material in the filter-beds at the waterworks for destroying and preventing the passage of infective matter, we know, Dr. Barry adds, but little; but this, in the present case, is not, he thinks, of much consequence, since he found on examination that fully a third of the water was passing direct into the water-main without any filtration whatever. Nevertheless, the report says, the filtering sand has not been renewed for a great number of years, although it undergoes a certain amount of cleansing from time to time. Having satisfactorily established the fact of a direct communication between the consumers of water and the specifically poisoned contents of the drain at Llwynrhandir, together with the further fact of cases occurring simultaneously miles apart from one another with no circumstances in common but the water-supply, Dr. Barry has no hesitation in attributing the primary spread of the disease to that water-supply. He further shows the probability of the sudden increase of the number of families invaded on June 23 and July 1 having been caused by a very heavy rainfall which occurred about ten days prior to each of these occasions, thus affording increased facilities for the washing-out of the infected drain, and for the conveyance of specific matter to the water-supply. From July 10 to 17 a remarkable extension of the disease took place, during which no less than thirty-nine new households were affected (twenty of them, it is said, in one day—July 15 in widely different localities. After much careful inquiry, Dr. Barry ascertained that on June 30 one of the mains of the water company burst. For the next twenty-four hours the consumers had but a short supply, and on July 1 the plugs were withdrawn from the filter-beds, and the water passed directly into the mains from over the filter-beds. That a great disturbance did take place in the reservoir and filter-beds on July 1 and 2 is unquestioned, since from all sides Dr. Barry received information that on those days the water was much discoloured, and even in some cases was stated to have smelt offensively. From the commencement of the epidemic to the end of July, the total number of cases reported to have occurred was 141—83 males and 58 females; 9 were persons under ten years of age, 87 between ten and twenty-five, 36 between twenty-five and fifty, and 9 over fifty. Of the total cases, 8 had up to July 31 proved fatal. Dr. Barry had an opportunity of examining several of the patients, and found that they presented typical symptoms of enteric fever; the rash, temperature, and diarrhœa being in most cases well marked. In several instances hæmorrhage from the bowels had occurred. In conclusion, Dr. Barry observes that, taking all the facts into consideration, it is his opinion that the water-supply became specifically affected to a slight degree on or about May 22, and that this pollution continued until the end of June; that this continuous slight pollution accounts for the dropping nature of the cases up to July 7; that the special outbreak in the second and third weeks of that month was due to the communication of infected matter in a concentrated form, owing to the disturbance in the reservoir and filter-beds resulting from the accident to the main on June 30; finally, that a certain number of the cases which occurred from the end of the first period to the present time were due to direct introduction of infected air from the sewers into which the discharges from cases of enteric fever had been received. The history of this inquiry shows that the spread of fever in Bangor was almost, if not entirely, owing to causes directly under the control of the Sanitary Authority, viz., the liability of the water-supply to contamination, the defective ventilation of the sewers and house-drains, and the foul accumulations of excrement and refuse in the town. These latter, even where not actually the initial cause of the disease, undoubtedly favoured its spread.

Students at Dorpat.—During the second session of 1882 there were 1366 students, of whom 574 were medical, and ninety-seven pharmaceutical students.—*St. Petersburg Med. Woch.*, November 4.

FROM ABROAD.

Diagnosis of Pneumonia and Pleurisy in Children.

Dr. Jules Simon delivered the following clinical lecture at the Hopital des Enfants Malades, which was reported in the *Gazette des Hopitaux*, No. 94 :—

A little child has been brought in, presenting, on examination, a suspicious condition of the apices, a *souffle*, and dulness—the signs, in fact, of a pleural effusion of some intensity. I am desirous of profiting by the occasion by exhibiting to you the differential diagnosis of pleurisy and pneumonia in children. In them, indeed, the characteristics of the two affections are so distinct that it is easy to trace them and bring them into relief. Pneumonia sets in with shivering—a truly initial shivering—vomiting, convulsions, and violent fever. There is no pain in the side. Respiration is accelerated, and its rhythm may reach sixty in the minute. The little patient feels a kind of continuous tickling in the throat, which gives rise to an incessant short and dry cough. During the first forty-eight hours the physical signs furnished by auscultation and percussion are wanting, or well-nigh wanting. When the pneumonia has its seat at the base of the lung, pain on pressure sometimes exists, but percussion, I repeat, as yet furnishes no element of diagnosis. It teaches us absolutely nothing, especially when the base of the right lung is affected, as any dulness that exists may just as well depend upon the liver, which is always very voluminous in children. The only signs furnished by auscultation during the first two days (when they are not absolutely non-existent) are the absence of the respiratory murmur, a more or less absolute apnœa, and, in expiration, a kind of small dull note, which may be perceived in the distance.

Pleurisy, on the other hand, has neither the violent commencement, so to speak, of pneumonia, nor its general display of symptoms, there being neither vomiting, convulsions, nor marked febrile action. To such a point is this the case, that acute pleurisy may remain for some time completely misunderstood by relatives, however attentive these may be to the health of their children. At first they take it for a mere cold, and frequently bring the child to the hospital, never suspecting the existence of a pleural effusion. Still, in pleurisy there exists a phenomenon not met with in pneumonia, namely, pain, which is not situated under the breast, as in the adult, but which, by a peculiarity that we cannot explain, localises itself in the flank of the affected side. It is not an intercostal neuralgia, as in pleurisy of the adult, but a pain radiating through some of the nervous filaments of the walls of the abdomen. In a child attacked by pleurisy, the fever is slight, the little patient has but a small appetite and is constipated, he sleeps ill, and complains of a pain in the belly—a pain which should at once lead to the suspicion of inflammation of the pleura. The rhythm of the respiration is but very slightly accelerated, and if the cough is a little dry, that is its only characteristic. But if the attention of the physician be directed to the chest, he will perceive, at the end of twelve or twenty-four hours, that there exists a decided dulness, around which he will hear a certain rubbing sound. At the same time, he will remark a more or less complete apnœa as well as a blowing respiration, prolonged in the centre, while, if the child cries, a true broncho-ægophony will be perceived. The functional disturbances and the general condition are, however, so little pronounced, that in most cases the child is able to get up and walk about almost as when in his ordinary condition.

Thus from their very origin these two affections present phenomena so absolutely different that it is impossible to confound them. With respect to their treatment, having already had occasion to trace that of pneumonia, I shall to-day only advert to that of acute pleurisy. This, I need not tell you, should always begin with confining the child to bed, and packing up its lower extremities in wadding covered over with oiled silk. Then, for the relief of pain, you will prescribe either the application of some dry cups or a linseed poultice upon which some dry mustard has been powdered. Only the next day, or the day after, from the commencement of the disease, you will resort to revulsives, in the form of flying blisters from about six to eight centimetres in diameter, according to the age of the child. These must never be left on more than three or four hours, even if they do not seem to have risen. As soon as they are removed, you apply a starch cataplasm for one hour, and then dress with cerate. This revulsive treatment must be continued during the whole duration of the disease. I do not apply the blister from the very first day, in order not to add new suffering to the pain which already exists, and which would only render the immobilisation of the ribs still greater, the remedy thus being more hurtful than useful. I also prescribe a mixture composed of one hundred grammes of mucilage, tincture of squill and digitalis, of each ten drops, and syrup of orange-peel thirty grammes. If the child is very restless, I replace this syrup of orange-peel with eight grammes of the syrup of belladonna and thirty grammes of the syrup of tolu. The mixture should be continued for five or six days, after which the squill and digitalis should be omitted, in order to prevent their causing, by their accumulation, irregularities in the circulation. I also order milk and a tisane of cherry-stalks (*queues*) as a diuretic, and milk and broth as a dietetic regimen, as long as the fever persists. This generally subsides at from the tenth to the twentieth day, which are the ordinary limits of acute pleurisy in the child. If you give a more substantial nourishment, as so many relatives ask you to do, you will almost infallibly increase the pleuritic effusion; so that a special diet is absolutely necessary for the child. Such is the medical treatment of acute pleurisy in the child; and another opportunity will be taken to treat of thoracentesis.

M. Péan on the Drainage of Large Wounds.

In a lecture delivered at the St. Louis (*Gaz. des Hop.*, No. 98), M. Péan observes that he has always been a strong advocate of union by the first intention in both large and small wounds, and that the great thing in furtherance of it is the prevention of the accumulation of the liquids in the anfractuosities of the wounds. In his various works he has laid great stress upon the best means of preventing such accumulation, and in this lecture he briefly restates them.

1. *The Declivity of the Wound.*—A good direction given to a wound and its mode of closure suffice in many regions to secure the exit of these liquids, especially when the wounds are small, superficial, and regular. But this is very far from sufficing under opposite conditions. Certain regions, by reason of their form, their seat, their depth, and the irregular disposition and the multitude of the planes which enter into their composition, are ill-disposed for the discharge of liquids, especially when the tumours of which they are the seat send important prolongations in various directions. In such cases the retention of the liquids is well-nigh certain, and their decomposition, the result of such detention, almost surely induces severe phlegmasiæ, which, affecting the cellular tissue, the lymphatics, and the veins of the vicinity, may, in the worst cases, give rise to septicæmia and purulent infection.

2. *The Mode of Hæmostasis.*—This is of great importance, whether the wound be made by the bistoury or the thermo-cautery. In place of applying ligatures and leaving them in the wound, it is preferable to be content with compression of the vessels by forceps, or with ligatures lost in the wound, so that all foreign bodies are suppressed which might irritate the surface of the wound. The rules for such procedure are given in M. Péan's "De la Forcipressure; du Pincement des Vaisseaux."

3. *Drainage.*—After describing the great benefits which have resulted from the employment of Chassaignac's drainage-tubes, M. Péan goes on to observe that "There is a good number of wounds made in deep-seated, irregular regions, which are ill-disposed for the total discharge of the liquids which they secrete; and it is the manner in which drainage ought to be applied to such wounds that we have modified in a way that seems to us advantageous. Instead of simply placing one or more tubes, the extremities of which issue at one of the angles of the wound, we employ ourselves especially in securing the passage of the caoutchouc tube through the most deep-seated parts—creating, if necessary, either with the trocar or the bistoury, artificial tracks for the passage of the tube,—without its being necessary to pass this between the points of suture, which are thus placed favourably for obtaining union by the first intention. So that the discharge of the liquids is assured by the most direct channel, and the tube does not produce a mischievous irritation of the lips of the wound which it is the object to unite.

"Let us take some examples in order to make the mode of application of this new procedure better understood. Suppose that we have to do with an amputation, flap or circular. Most surgeons, following Chassaignac, place a bend of caoutchouc at the bottom of the wound, the ends of which come out at the opposite angles of the wound; or they place a tube at each extremity of the wound. We have often succeeded by this means, availing ourselves, of course, of all the other resources at the disposal of modern surgery. But this is how we now proceed. We always place the middle of the bend of the tube in the centre of the wound at its deepest part, and as much as possible at a point which does not exactly correspond to the section of the bone, and we cause its ends to come out elsewhere than through the wound, and in a more direct course, by making the tube pass through the soft parts. The tube should be so disposed that the liquids may easily be conducted away by the shortest and most dependent course. If the surface of the amputation wound is very large and a second tube has to be introduced, we sometimes place it more or less near the first one, and sometimes bring out one of its ends at the most dependent angle of the wound. If the case is one of resection, we proceed in the same manner, with this difference, that when the resection is practised amidst old or recent fistulous tracks, we prefer passing the ends of the tube by these tracks when they are placed in a favourable direction; but we proceed as in the other case when these tracks pursue a direction unfitted to prevent the stagnation of the discharges.

"When there is a large wound left, as after the removal of great tumours of the splanchnic walls or cavities or of the limbs, we leave a tube in, following the great axis of the wound, causing its end to pass direct through the most dependent points of the soft parts. It is in this way that we long since proposed to bring out by the vagina a tube passed in by the hypochondrium in those patients in whom the removal of large pelvic tumours had caused great mutilations, which might cause death by septicæmia if the liquids did not find an easy issue during the first days after the operation. In the same way, after the removal of tumours of the breast or axilla, which send out prolongations under the scapula, we have always taken care to pass under that bone, through the soft parts, the extremity of the tube which is placed in the wound. So too in large glandular, fibrous, or sarcomatous tumours of the neck, we are in the habit of bringing out one or more tubes through the most favourable points of the soft parts. And after ablation of large tumours which take their origin in the soft parts or bones of the limbs, if it is necessary in order to prevent the retention of pus in the synovial sheaths which surround the tendons, we do not hesitate to follow them by the aid of trocars and traverse them in order to prevent the danger of acute synovitis. So too with the bones, if we fear the retention of the pus of an abscess, we trephine them through and through to facilitate the passage of the tube and prevent the pus stagnating in the medullary canal as well as in the soft parts.

"Thus managed, drains, besides the results of ordinary drainage, offer numerous advantages:—1. They cause very little irritation in the parts through which they pass. 2. They are fixed more solidly and have less tendency to escape, and consequently have to be renewed seldomer. 3. They facilitate the flow of the liquids of wounds, and insure their discharge by the shortest and best channel. 4. They enable the surgeon to close the whole of the wound by first intention either the same day or the day after the operation. 5. In amputations they do not cause more inconveniences than deeply-placed sutures, and they contribute to the fixity of the flaps. 6. They increase, in a notable proportion, the successful results of great surgical traumatisms, as we have been able to prove during a great number of years, by comparing this mode of applying drainage-tubes with others."

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly meeting of the College, held on Friday, December 1, the following were elected Examiners for the Certificate in Sanitary Science:—Examiner in Sanitary Law—George Robert Price, B.A., University of Dublin, barrister-at-law; Examiner in Sanitary Engineering—Mervyn J. B. Pratt, C.E., M.A., M.E., University of Dublin. The first examination for the newly instituted Certificate in Sanitary Science will take place on Thursday and Friday, January 11 and 12, 1883.

REVIEWS AND NOTICES OF BOOKS.

Brain. October, 1882.

DR. FOVILLE, who is becoming a regular contributor to English journals, and whose contributions are always welcome, has a long and interesting article in this periodical on Alternating Insanity—an article which is interesting not only in itself, but from the unusual occurrence in *Brain* of articles devoted to insanity. Dr. Obersteiner, of Vienna, adds another paper to his previous observations on Chronic Morphinism, the chief feature of which lies in the opinion there strongly expressed that the "weaning cure" is permissible in a certain class of cases only—those, namely, in which there is reason to expect a successful issue; but how these cases are to be distinguished is not made clear. Dr. Obersteiner insists that a real and persistent result after the "weaning cure" is very doubtful, or is not obtained; and the cure itself may in some cases actually endanger life. He is further of opinion that the protracted use of morphia in large doses is followed by psychical alterations of a lasting nature, which may amount to decided insanity. In this respect, as in others, morphinism parallels alcoholism. Dr. Mercier has an article of speculative character on the Conditions of the Nervous Discharge; and Dr. Ross, a paper on the Spasmodic Paralyses of Infancy, which is of course of excellent quality, and which helps to fill a gap in our knowledge of morbid kineses. Dr. Hughlings-Jackson publishes another of his elaborate reports of a case of Localised Convulsion from Tumour of the Brain, accompanied by a large lithograph of the brain. His remarks are confined mainly to the clinical aspect of the case, and the most important of them are that patients with glioma of the brain are, if the tumour is at all large, always on the brink of death, from the proneness of the bloodvessels of the tumour to give way; and that since in young people optic neuritis often results from glioma of the brain, this symptom must in them always be considered a grave one. In a review of Dr. Luys' recent work on the Brain, Dr. Bucknill takes substantially the same view of it as that already expressed in these columns; and Dr. Hughlings-Jackson speaks with deserved commendation of Dr. Buzzard's new book on Diseases of the Nervous System. The clinical cases recorded are as interesting as usual, and rather more numerous. It is a pity that the publishers of *Brain* do not follow the excellent custom, now so widely prevalent, of issuing the work with the pages ready cut.

The (American) *Journal of Nervous and Mental Diseases* SUSTAINS in its July number the high character of its previous issues. The first article is an extremely careful and impartial examination of the question of the use of restraint and seclusion in the treatment of the insane, an article which deserves the close attention of all our asylum authorities. The spirit in which the subject is approached is indicated in the expression, in the opening paragraph, of the opinion that "the practicability of almost absolute non-restraint does not demonstrate that such a course is altogether preferable, nor does the possible value of restraint carry with it the proof that it cannot be, and never is, abused." It is well known that this aid to treatment and discipline is far more frequently used in the asylums of the United States than in this country, and the authors arrive at the conclusion—which is certainly in harmony with the opinions prevailing on this side of the Atlantic—that its use is, at least in some cases, excessive; but they show far more than this, and some of the conclusions, taught by their figures and records, surprise even themselves. They show not only that the gradual disuse of restraint is accompanied by a great improvement in the conduct of the patients, less disorder, fewer assaults, and altogether less difficulty in the general management of wards; but that of so little efficacy is the method of restraint, that homicide and suicide are actually most frequent where they are most used. When it is remembered that at Broadmoor no form of restraint has been used during the last twelve months, it will be seen that these results are not due to the exceptional mildness of those who are not restrained. So far, a comparison between the two countries is in our favour, but the following remark of the authors of the paper under review (Drs. Bannister and Moyer) is, we believe, a valuable one: "A study of the

reports of the English Commissioners in Lunacy, however, suggests a doubt whether, in the competition to make a good appearance in the inspector's minutes, the reasonable limits of non-restraint are not passed by some of these institutions. . . . It is undeniable that it [seclusion] can be dispensed with in these cases [of excessive irritability], but it is questionable whether this is not, in the end, at the expense of the individual patient's welfare."

The other articles in this number of the *Journal* are generally of high merit, but none call for special mention. The surprising familiarity shown by American physicians with the latest researches in this country and on the Continent is, we fear, scarcely enough reciprocated by us.

A Descriptive Catalogue of the Pathological Specimens in the Museum of the Royal College of Surgeons of England. Second Edition. Vol. I.: General Pathology. London: J. and A. Churchill. 1882.

It is now thirty-three years since the first Catalogue of this Museum was brought out by Mr. Stanley and Mr. Paget, and nearly twenty years since Mr. Flower issued his supplement to that Catalogue. Since the latter date no less than 1750 specimens have been added to the Museum—a fact in itself quite sufficient to justify the appearance of this new edition, leaving out of consideration the changes which might be made in classification and description of the old specimens as a result of increased and more accurate pathological knowledge. When Sir James Paget in 1878, at the request of the Council, undertook to prepare the new edition, it was felt by all that his name was the best possible guarantee that the revision of the Catalogue would be done in a way worthy of this great (we had almost said national) Museum; in Dr. Goodhart and Mr. Alban Doran Sir James Paget has had the advantage of the assistance of two of the keenest workers in pathology that have ever been connected with the Museum of the College.

The arrangement adopted in the first edition of the Catalogue has been in the main adhered to, and the volume before us is upon General Pathology, the object being, as we learn from the report of the Council at the time of deciding upon this mode of arrangement, to group together such specimens as may be considered typical of diseased structures, or such as would illustrate the ascertained facts relating to the repair and reproduction of injured and lost parts, the effects of common inflammation, or the characters of tumours and of various morbid growths and deposits.

The volume contains an account of some 550 specimens, or nearly double the number in the first edition: this increase being due in great measure to the fact that in the first edition the dried specimens were kept separate from the rest in accordance with Hunter's plan; but now they have, very properly, we think, been described in their appropriate order.

In the description of the specimens the fullest details available have been given, and whenever possible a reference to any published account of the case, or to the MS. notes of the Museum, for further particulars. The name of the donor of the specimen, or of the collection from whence it was obtained, is appended in every instance where the fact was known, and the date of presentation of all specimens added since the publication of the Supplemental Catalogue is given. We believe that we shall best do justice to the volume before us if we endeavour to give an outline of the plan upon which it is arranged, rather than by going into any details about individual specimens. In this portion of the Museum, then, there are six series, illustrating respectively hypertrophy, atrophy, repair and reproduction, the process and effects of inflammation, mortification, tumours and other allied morbid growths. Taking the first series, hypertrophy, there are nineteen specimens in all, six illustrating its causation by increased exercise of function, five by increased supply of material for growth, three by increased blood-supply, one by increased supply or retention of lymph, one by occasional pressure, one compensatory, two by mechanical or chemical irritation, two inflammatory, three congenital, one hereditary, three by causes unknown, and two by adapted enlargement of bloodvessels. The object being simply to furnish typical examples of hypertrophy, no regard is paid to the order in which the organs or tissues are arranged; thus we find side by side a heart, a gall-bladder, and a parietal bone. At the end of the series references are given to other specimens illustrating the same process, but arranged in the other parts of the Museum.

We cannot terminate this brief notice without thanking Sir James Paget for having given us what must ever remain as the model of what a museum catalogue should be.

A Supplementary Catalogue of the Pathological Museum of St. George's Hospital. By Isambard Owen, M.D. London: J. and A. Churchill. 1882.

This book contains an account of the specimens that have been added to the Museum of St George's Hospital since the publication of the first Catalogue, upwards of sixteen years ago. During this period more than eight hundred preparations have been put up, so that the whole collection now numbers some 4200 specimens. The description of each specimen is given, and, where possible, a brief account of the case during life, a reference to the Hospital registers being added in most instances. Taking for granted a methodical arrangement as a *sine qui non*, we may say that the value of a catalogue depends upon the manner in which the specimens are described. In this respect the volume before us leaves nothing to be desired. Seeing the size to which this Supplementary Catalogue has attained, it seems almost a pity that a new edition of the Catalogue was not brought out instead, the more so, as the new museum catalogues of the Royal College of Surgeons and St. Bartholomew's Hospital have just been published, and we believe it would have compared not unfavourably with these.

A Manual of Physiology. By E. D. Mapother, M.D. Third Edition by J. F. Knott. Dublin: Fannin and Co. 1882.

Eighteen years have elapsed since the second edition of Dr. Mapother's "Manual of Physiology" was published, and we feel sure no one will be surprised when we say that the book has been re-written; we doubt, indeed, very much whether Dr. Mapother would recognise it. In no branch of professional study have such enormous strides been made in England of late years as in the various subjects included under the head of physiology, thanks to Michael Foster and his pupils mainly. A work on physiology, written ten years ago, would be of very little use in helping a student to pass the examinations of the present day. No wonder, then, that Mr. Knott has had to re-write this book; indeed, for all practical purposes, we may consider it a new book altogether. So far as we can judge, Mr. Knott has spared no pains to bring it up to date, and it is evident that he has kept himself well informed of all that has been done on the Continent as well as in the United Kingdom. The chapters on the circulation of the blood, and the physiology of the tissues, strike us as being perhaps the most exhaustively full, though we would by no means imply that the others are wanting in thoroughness. We are sorry that Mr. Knott did not think fit to add a chapter on development, for though it may be quite true that the subject has much increased in extent during the last few years, yet from the student's point of view it still belongs to physiology, and he ought not to have to look elsewhere for a brief account of it. This is about the only fault we have to find with Mr. Knott, and, with this exception, we think he has produced a work which, for the present, contains all that a student requires to know.

An Index of Comparative Therapeutics. By Samuel O. L. Potter, A.M., M.D. Second Edition. London: Henry Kimpton. 1882.

We cannot believe that this work will supply a want in this country; but that it has done so in America would appear from the fact of its having reached a second edition in less than a year. The general plan of the book is simple: there is an alphabetical list of the more common disorders, and under the head of each, in parallel columns, two lists of the drugs employed for their relief or cure—one column being reserved for homœopathic remedies, the other representing the mode of treatment employed by those who do not believe in homœopathy. We are led from the preface to infer that when the same line of treatment is usually followed by all parties, the fact will be mentioned in both columns; accordingly we are to believe that the use of glasses in cases of myopia is confined to those imbued with homœopathic tenets; and that in the treatment of diarrhœa none

but homœopaths pay any attention to diet. We could find instances of similar inaccuracies on almost every page.

The author is himself a homœopath, and a believer in high-potency doses up to the tenth attenuation. Of those who believe in attenuations above the thirtieth he speaks in language almost as unmeasured as that which has been applied by non-homœopaths to Hahnemann himself.

A Medical Formulary. By LAWRENCE JOHNSON, A.M., M.D. London: Sampson Low, Marston, Searle, and Rivington. 1882.

THIS work consists of an alphabetical list of the more commonly used drugs in America and other countries. A short account of the mode of preparation of each drug is given, and in the case of a vegetable preparation the natural order to which it belongs is added. The use of each drug is given, in a very few words, and the average dose employed. Almost all the officinal preparations of our own Pharmacopœia are to be found here, and a good many other drugs besides. Illustrative prescriptions are appended to all the best-known remedies, and are in the vast majority of instances taken from the pharmacopœias of the various London hospitals. The author seems to have performed his task with great care and very thoroughly. We think the volume will prove of service to many practitioners.

Practical Chemistry. Analytical Tables and Exercises for Students. By J. CAMPBELL BROWN, D.Sc. Second Edition. London: J. and A. Churchill. 1882.

IN this edition the various exercises are described in so clear a manner that a student could not fail to be able to work through them all without any extraneous assistance. The tables that are given to assist him in testing for the various metals are as well arranged as any that we know of. Throughout the book the author has evidently spared no pains to be concise, without, however, at all sacrificing clearness.

Clinical Lectures on the Diseases of Old Age. By J. M. CHARCOT, M.D. Translated by LEIGH HUNT, M.D. With Additional Lectures by ALFRED L. LOOMIS, M.D. London: Sampson Low, Marston, Searle, and Rivington. 1882.

THAT the classical lectures of Charcot on the Diseases of Old Age should have found another translator so soon after the publication of the New Sydenham Society's edition is not in the least surprising. The only wonder to our mind is, that they remained untranslated so long. Dr. Leigh Hunt seems to have performed his share of the work creditably, and those who cannot or do not care to read the lectures in their original language will find here a faithful interpretation of them. We should have been glad if the book had ended here, but some friend (?) seems to have persuaded Dr. Loomis to deliver some lectures to be appended to M. Charcot's. Our American brethren have such very different notions from ourselves as to what is good taste that perhaps it will be fairer if we say nothing upon this head; but Dr. Loomis should have remembered that in tacking on his lectures to those of a world-renowned writer he was challenging a comparison in a very rash way. Published by themselves, these lectures might, perhaps, in the opinion of some, have had their merits, but in this form we cannot say that they prove an "acceptable addition" to the rest of the volume.

The Contagiousness of Pulmonary Consumption, and its Antiseptic Treatment. By J. BURNEY YEO, M.D. London: J. and A. Churchill. 1882.

THIS little volume consists of two lectures delivered at King's College Hospital last summer. The first is devoted to solving the question, "Is consumption a contagious malady?" Believing that this proposition can only be established on the evidence of clinical facts, we naturally looked with great interest to the statistics supplied from the author's own experience at Brompton in regard to the probable conveyance of consumption from husband to wife or *vice versâ*. The evidence thus adduced, however, does not (and Dr. Burney Yeo admits it) afford any definite confirmation of the proposition. The rest of the lecture is mainly devoted to a recapitulation of the various steps that have been taken to demonstrate experimentally the infective nature of tubercle. The second lecture deals with the question of the "antiseptic treatment" of phthisis, on the importance of which as a part of the general treatment Dr. Burney Yeo lays great stress. In an appendix to the first lecture, Dr. William Budd's interesting paper "On the Contagious Nature of Pulmonary Phthisis," as published fifteen years ago, is reprinted.

Regional Surgery; including Surgical Diagnosis. A Manual for the use of Students. Part I.: The Head and Neck. By F. A. SOUTHAM, M.A., M.B. Oxon., F.R.C.S. Eng. London: J. and A. Churchill. 1882. Pp. 229.

THE author's object has been to group together the principal surgical affections which are peculiar to each region of the body, and to give the differential diagnosis between them. Such a work, if well carried out, can hardly fail to be useful as an aid to memory, not to the "more advanced student" only (for whom it was chiefly written), but also to the busy general practitioner. Either the one or the other can turn the pages of the book till he comes to the region of the body in which he happens for the time to be especially interested, and the commoner surgical ailments of that part will be found grouped together. The diagnosis being established, treatment is comparatively easy. The work appears to us to be well done as far as it goes, but it is all too short and condensed. The author would do well to go a little more into detail in the next two parts; or he must be a little less dogmatic in his statements.

The book is very clearly printed; it abounds in cross references in bold figures, and the catchwords materially facilitate reading and study.

Animal Intelligence. By GEORGE J. ROMANES, M.A., LL.D. F.R.S., Zoological Secretary of the Linnæan Society. (International Scientific Series, Vol. XLI.) London: Kegan Paul, Trench, and Co. 1882. Pp. 520.

THIS book is but part of a work which the author designs. In it he has tried to produce "something resembling a text-book of the facts of comparative psychology." In a volume hereafter to be published he intends "considering the facts of animal intelligence in their relation to the theory of descent." This work is, in fact, a compilation of experimental observations and anecdotes illustrating the intelligence of animals. The accounts quoted are arranged first according to the zoological position of the creatures to which they relate, beginning at the lower and ascending to the higher; and in each group are classified according to the kind of mental faculty which they illustrate. And, it will be scarcely necessary to add, this works differs from the popular collections of similar anecdotes, in that Mr. Romanes has critically examined the evidence upon which the numerous stories he met with rested, and has admitted none but such as are supported by respectable authority, and are recorded in a sufficiently exact manner to justify credibility. The work is easy and interesting reading.

The Physicians' and Surgeons' Visiting List, Diary, Almanac, and Book of Engagements for 1883. London: John Smith and Co., Medical Stationers, Long Acre.

THIS tried and trusty friend and assistant of medical practitioners for longer than the life of a generation, has lately made its thirty-seventh annual appearance. To the "Subscribers' Compendium," which gives in a tabular form the doses of all the medicines of the British Pharmacopœia, the publishers have now added some of the more important "non-official" medicines, including internal and external remedies that have gradually grown into favour with the profession. These are distinguished from official remedies by being printed in *italics*, and no doubt this new feature of the "Compendium" will be regarded as a very useful one. This work is too well known to need much recommendation from us.

Our Happy Family: being the *Little Folks* Annual for 1883. —*Cassell's Illustrated Almanack* for 1883. London: Cassell, Petter, Galpin, and Co.

BOTH these publications do credit to the high reputation of the firm by which they are issued. They are excellent examples of Christmas books, and will no doubt command a very large sale.

The Boy's Own Paper.—The Girl's Own Paper.—The Christmas Carrillon: being the Christmas Number of the *Girl's Own Paper*. London: The *Leisure Hour* Office, Paternoster-row. 1882.

The two serials named above continue, we are glad to know, to keep the remarkable hold on the popular favour that they won almost at the very commencement of their publication. The high tone and character of the early issues have all along been well maintained, and the practical usefulness of the contents has certainly not diminished. The Christmas number of the *Girl's Own Paper* is worthy of the series to which it belongs; and we will add that the annual volumes of the *Boy's Own Paper* and the *Girl's Own Paper* would be handsome and highly acceptable Christmas gifts.

GENERAL CORRESPONDENCE.

THE STRATFORD PROVIDENT DISPENSARY.

Letter from Dr. H. Davies.

[To the Editor of the Medical Times and Gazette.]

Sir,—May I ask you to insert the accompanying report in your journal?

These self-styled provident dispensaries are, in fact, only commercial enterprises which require more investigation than they have hitherto received.

Without supposing that they are in the habit of distributing broadcast admission-cards upon which the proprietors have unwarrantably had printed (as in my case) the name of some hospital physician or surgeon as their consulting officer, I have no doubt that these establishments lower considerably the credit of our profession, and tend to injure the *bonâ fide* provident institutions.

I am, &c.,

Herbert Davies, M.D., F.R.C.P.,
Consulting Physician to the London Hospital.

23, Finsbury-square, E.C., December 1.

On Thursday, November 23, at Lincoln's-inn, before Mr Justice Kay, Mr. Rigby, Q.C., moved the Court on behalf of Dr. Herbert Davies, of Finsbury-square, for an interim injunction to restrain Drs. J. A. H. Budgett and W. E. Richardson, and the Stratford Provident Dispensary, their servants, agents, assistants, and others, from issuing or publishing any circulars, forms, cards, or letters with Dr. Davies's name thereon, or from otherwise representing him to be the Consulting Physician to the said Dispensary. Mr. Rigby, in support of the motion, stated that the Dispensary was not a charitable institution, but a commercial business, and that so long ago as 1880 Dr. Davies's name was being used in the manner complained of without his knowledge or consent, and on his solicitors calling attention to it at that time, they received in reply a written apology from Dr. Budgett, stating that the act complained of was a clerical error, and undertaking that such a thing should not occur again. In August of the present year Dr. Davies, however, again discovered that his name was still being used in contravention of the undertaking, and he therefore was compelled to take the present proceedings. The facts of the case being in evidence, his Lordship granted the injunction prayed for.

Vomiting in Phthisis.—In order to relieve this symptom, of such frequent occurrence in phthisis, Dr. Woillez painted the pharynx with a solution of bromide of potassium, and found it very useful. A pencil of charpie dipped into a solution of pure bromide in two-thirds of water was passed rapidly into the pharynx before meals, the patient being required to abstain from expectoration after as long as possible. In several cases the vomiting was arrested by the first application, while in others the action, though less immediate, was also beneficial. Fifty-two applications having been made in nine patients, vomiting only occurred seven times, the operation always being performed before any food was taken.—*Jour. de Therap.*, October 28.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 28.

John Marshall, F.R.S., President, in the Chair.

Several specimens from the museums of St. George's and Guy's Hospitals, illustrating lesions found in patients who had had epilepsy during life, were exhibited. Three calvaria from Guy's Hospital Museum were especially interesting; in one of these cases temporary benefit had followed on trephining, although there was extensive (? syphilitic) caries, involving the entire thickness of the bone. A series of large-sized photographs, belonging to Dr. von Ziemssen, showing the action of the facial muscles under electrical excitation, was also shown.

On Spontaneous Postures of the Hand considered as Indications of the Condition of the Brain.

Dr. Francis Warner read this paper, of which the following is an abstract:—A posture is the relative position of the several members of the body with regard to one another, and the relative position of the individual parts of a member. Every posture is due to a balance of the muscles produced by some portion of the central nerve-mechanism. A weak child spontaneously holds out his hands in the "nervous posture." The limb is now free or disengaged; its posture is the spontaneous outcome of the action of the nerve-centres. The wrist is slightly flexed, the metacarpo-phalangeal joints are extended backwards, the internodes being either flexed or straight. This posture is often seen in nervous children; it is usually bilateral. Explanation may be sought after Darwin's method—*i.e.*, observe what advantage attends the posture. The following method appears preferable: analysis and analogy show a wrist drooped as in weakness, and the knuckle-joints extended as in conditions of excitability. This posture is sometimes found in spastic contraction. The "energetic hand" may also be a permanent posture resulting from brain disease. The wrist is extended, the small joints are all flexed. This posture is the antithesis of the "nervous hand." The following axiom is assumed:—"If we see some spontaneous nerve-muscular action often repeated in the same and in different subjects, it may be assumed that there is some nerve-mechanism corresponding which can act independently." In any particular case the existence of a special centre is strengthened if we can see its action when excited, and again when it is weak. In analysing postures the following "principles" appear useful:—1. The contrast of small parts with large parts. 2. Interdifferentiation, *i.e.*, the relative condition of the large and small joints. 3. Collateral differentiation, *i.e.*, the relative condition of collateral joints. 4. Symmetry or asymmetry in a posture. 5. Excitation of weak centres. 6. General excitement or general weakness. In this case the stronger muscles produce the posture. 7. Antithesis, *i.e.*, the principle that opposite postures may indicate antithetical states of the corresponding nerve-mechanism. 8. Anatomical analysis and description. 9. Analogy between postures. The following suggestions are offered as to determining whether a posture is the outcome of the spontaneous action of the nerve-centres. The part must be free or disengaged. Look for analogous postures in brain disease. Look for analogous postures in infants, also in ancient art. Apply the "principles" above given to the case in question. Errors may be made by attributing all postures to the central nerve-mechanism. Postures may be due to joint disease, local changes, organic conditions, *e.g.*, cardiac orthopnœa, the effects of gravity, muscular rigidity, local injury to nerve. The author gave, as an appendix, a table applying the principles of analysis to eight postures, viz., the nervous hand, the energetic hand, the hand in rest, the straight extended hand, the straight extended hand with thumb drooped, the convulsive hand, the hand in fright, the feeble hand.

Dr. Hughlings-Jackson thought Dr. Warner was to be congratulated on having worked hard in an original field. He could only, however, in comment on the paper, speak on allied classes of phenomena. He remarked that the hand is

the most specialised part of the body, the one with which we can do the greatest number of different things. It is the most "voluntary" part. The chest, in its most important movements, is a very general, he did not say the most general, part; its operations are almost repetitions of one movement all our lives; it is a very automatic part. He pointed out that the hand differed from such a part as the shoulder in having more muscles, smaller muscles, more different movements, and in that in most of its operations it has but little mass to move and weight to carry. Hence he preferred for such a part the expression "small movements" instead of that it had "small muscles," the latter expression not covering the whole peculiarities of the hand in its common activities. The shoulder muscles are few; they are not only large, but have the weight of the arm to move, and have as well to bear any load the hand may take up. He would call these "large movements." "Small movements" require little energy, but yet, being changing movements, they require frequent short liberations; they are, Dr. Hughlings-Jackson thought, represented by small nerve-cells. The reverse for "large movements," which, being comparatively unchanging, require comparatively persistent supplies of energy, in large quantity. He referred to epilepsy, to epileptiform seizures, and to chorea, and also to progressive muscular atrophy and paralysis agitans, as morbid affections in each of which small muscles or "small movements" suffer first or most or both, suggesting that small cells become morbidly over-unstable from excess of nutrition sooner than large ones, and that they atrophy sooner from defective nutrition. He referred to the frequency with which the hand suffers in cerebral disease, and to its suffering, in comparison, seldom or slightly in cerebellar disease. He spoke of the rigid attitude of an advanced stage of paralysis agitans (double hemiplegia with rigidity) as being the opposite of that in the rigidity of some cases of disease of the cerebellum. The loss of facial expression in paralysis agitans is, he thought, a puritanical look. He believed it to be owing to rigidity or stiffness of the facial muscles; there is an aged face, and if the patient be black-haired he looks as if he had a wig on, his hair being younger-looking than his face.

Dr. WARNER replied.

SEVENTEEN CASES OF EPILEPSY TREATED WITH SODIUM NITRITE.

Dr. RALFE, who read this paper, claimed the credit of introducing sodium nitrite for the treatment of epilepsy, for Dr. Law, of Hastings, who was the first to administer it, and who had fully described the theoretical reasons which led him to employ it, together with an account of its physiological action, in the *Practitioner* for June of the current year. Sodium nitrite in its action resembled nitrite of amyl and nitro-glycerine. It had one advantage over those remedies for the treatment of epilepsy—its effects were produced more slowly and were more permanent in character. The dose should just fall short of producing the full physiological effect. The author advised that care should be taken to ascertain the purity of the drug, as many samples contained an admixture of sodium nitrate. The details of seventeen cases treated by him in the out-patient department of the London Hospital were then given. Of these seventeen cases, three received no benefit, four improved slightly, one was a doubtful case, whilst nine benefited decidedly. Of all the cases, eight previous to treatment with sodium nitrite had been treated with bromide of potassium. Of these, three cases (1, 2, 3) had improved under its use, and went back when the medicine was changed to sodium nitrite. Of the other five, the bromide treatment was inefficacious from the first in three cases; and in two, though it had done good for some time, was losing its effect, and the patients were suffering from "bromism." In four of these cases (9, 13, 14, 15) decided improvement followed the change to sodium nitrite, and the other case (7) improved to a lesser degree under it use. Nine of the patients commenced treatment directly with sodium nitrite. Of these, the disease in four was of long standing, and probably the patients had already been subjected to a course of bromide at other hospitals. Of these, two improved under sodium nitrite, and two received decided benefit. The remaining five cases were all tolerably recent ones. Of these, three received decided benefit, one slightly improved, and one was a doubtful case. Among the cases that received decided benefit, the longest exemption from any kind of epileptiform seizure was in Case 17, who went eleven weeks without an attack—four weeks whilst under treatment, and seven weeks after leaving off the medicine. Case 14 went eight weeks without an attack, and had no relapse at the time he was last seen. He was still an out-patient and taking the medicine. Previous to commencing treatment he had on an average three fits a fortnight, and they were increasing. Case 16 remained free for a period of four weeks, and had had no recurrence when he gave up his out-patient letter. Case 9, who had a fit on an average every week, after taking the medicine was free for five weeks. The same result obtained with Case 15, who was free for one month. The author drew the following conclusions from these results:—1. That those cases in which bromide of potassium was of marked service were not generally suitable for a trial of sodium nitrite. 2. That those cases in which bromide of potassium did not agree well from the first would probably be found to improve under sodium nitrite. 3. That to patients who had taken bromide some time, and in whom the drug was apparently losing its effect, or who were suffering from bromism, sodium nitrite was useful as a change medicine. 4. That there was a class of cases, consisting chiefly of minor seizures or convulsive attacks, such as often occurred in young persons, usually at night, in which sodium nitrite was especially beneficial.

Dr. LAW, in answer to Dr. Broadbent, stated that he had no further experience to record since he had written in the *Practitioner*. He was led to try this drug in epilepsy by the probable analogy of its action with that of amyl nitrite.

Dr. GOWERS had given the drug in some twelve cases. He had not such a favourable report to make on it as Dr. Ralfe's, for it had only been at all successful in one case. His experience was, that epilepsy was generally benefited by any change in treatment; and hence one must eliminate this fact when judging the effect of any particular drug which may have been given.

Dr. RAMSKILL thought that the drug was useless as a remedy; and he feared further that it might prove even dangerous. He related cases which had not been favourably influenced by the drug. In one—that of a young lady—serious nervous depression had resulted. In ordinary cases of idiopathic epilepsy, it was unsuitable; in old secondary cases it might possibly be of service. There was hardly a remedy in the Pharmacopœia which would not temporarily cure fits.

Dr. COXWELL related five other cases, treated in the National Hospital for the Epileptic, in none of which had the drug proved of any service.

Dr. HUGHLINGS-JACKSON thought that Dr. Ralfe had made an earnest endeavour towards improving the therapeutics of epilepsy. To make even the smallest advances in the treatment of such a disease is a great thing. A larger number of cases, each observed for a long time, was, however, necessary to enable one to judge properly of the value of the sodium nitrite. He thought one of the most important things in the treatment of epilepsy was to limit the quantity of highly nitrogenised food. Heberden, Trousseau, Jackson (of Boston, U.S.), West, and Ireland have urged that epileptics should not eat much meat. If an epileptic be highly fed and be treated by tonics (especially by iron), even when anæmic, he often suffers the more from fits. He spoke, in conclusion, on the question—"Is it to the patient's advantage to stop epileptic and epileptiform seizures?" He suggested that it was best, in the case of epileptiform seizures beginning in a limb, not to abruptly stop the spasm by a ligature tightly applied, by trying to reverse the spasm, etc., lest the patient should on another occasion have a severe seizure making up for arrears. It is better to try to keep the spasm confined to the limb by ligature less tightly applied. If the latter plan be successful he would expect to find more local paralysis after the seizure than if the fit were not interfered with; but such paralysis being temporary, it would be a less evil than a severe or widespread fit.

Dr. DEWITT asked why the good old-fashioned remedy of a seton had been so much neglected. He had never known it fail to produce benefit when tried.

Dr. BROADBENT thought that we had not yet had a sufficient trial of the virtues of sodium nitrite. It would most probably be useful, if at all, in cases where there was low arterial tension.

Dr. WILKS was rather sceptical about new remedies; he

had often got benefit from the use of setons, and thought this treatment was too much neglected.

Dr. Buzzard asked in what doses bromide of potassium had been given in those cases in which it had proved ineffectual.

Dr. Ralfe replied.

The meeting then adjourned.

THE PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, December 5.

Samuel Wilks, M.D., F.R.S., President, in the Chair.

Acute Dilatation of Stomach.

Mr. Henry Morris exhibited this specimen. The patient, a man aged thirty-seven, had been admitted into the Middlesex Hospital, under his care, suffering from disease of the ankle-joint, which dated from June last. He was a thin, spare man, with pinched face and dark rings beneath his eyes, of a somewhat sallow complexion. There was no evidence of any disease other than that of the ankle-joint. He was anæsthetised with a mixture of two parts of ether and one of chloroform, and the joint freely opened. As the patient did not progress favourably a second operation was deemed necessary, and on November 11 he was again brought into the operating theatre. Ether was administered alone, but as he did not take it well after a few inspirations, chloroform was substituted for it, and there was no further difficulty experienced. An hour after the conclusion of the operation, the patient began to vomit a thin greenish fluid, and this vomiting continued up to the time of his death at very frequent intervals. He was never free from vomiting for more than an hour. There was no straining; the vomit was not frothy or offensive. It was estimated that there could not have been less than ten pints in all; the patient himself said he had vomited gallons. The urine was very scanty. There was no sweating. The abdomen was retracted, but not painful or tender. Skin cold; pulse very rapid. There was great thirst. Death took place forty hours after the operation. It should be mentioned that the patient had been prepared for the operation in the usual manner. At the post-mortem the stomach was enormously distended, its long, oblique, and transverse diameters being, respectively, seven, twelve, and four inches. The anterior surface was flattened. It contained twenty-eight ounces of thick fluid. The mucous membrane was somewhat reddened and mammillated towards the pylorus. The surface of the intestines was reddened. The bladder was contracted. The kidneys were indurated, tough, and scarred, and one of them contained a cyst. There were clots in both auricles of the heart. The ankle-joint was disorganised. As regarded the cause of vomiting, poisoning and intestinal obstruction were both absolutely excluded, and the vomiting was unlike that of chloroform sickness, both in character and quantity. Similar cases to his own had been published by Andral, Hughes Bennett, and several by Dr. Hilton Fagge, and there was one in vol. iv. of the Society's *Transactions*; none of them, however, had been so rapidly fatal as his own. He thought that over-secretion of the gastric fluid would be the cause both of the vomiting and dilatation, probably under the influence of the nervous system. The absence of perspiration, the scanty urine, the thirst, and the large quantity vomited, all pointed to this view being the correct one. In a word, the condition was gastrorrhœa. In conclusion, he pointed out the similarity between this view and Cohnheim's views on the causation of cholera.

Dr. Goodhart had put together the notes of five cases that he had met with in the post-mortem room at Guy's Hospital: four of them had been peritoneal cases; the other was a case of growth in the left side of the neck, involving the vagus and sympathetic nerve. He had noticed that the stomach was always flaccid, not containing much fluid. In one case only (an ovariotomy) were there any very marked gastric symptoms during life.

Dr. Pye-Smith remarked that the priority in regard to the suggestion about cholera belonged to Dr. Lauder Brunton. He wished to ask whether the fluid had been analysed during life.

Dr. Mahomed asked what the state of the kidneys was, as he had twice seen this condition of stomach associated with lardaceous disease of the kidneys.

Dr. Payne had seen an analogous condition in the intestines giving rise to symptoms of intestinal obstruction. Judging from cholera, he thought that over-secretion alone would not account for the dilatation of the stomach; there must also be some paralysis of its coats.

Mr. Morris, in reply, said the kidneys were certainly not lardaceous. He was sorry that the gastric fluid had not been examined, but the true nature of the case had not been suspected until too late. He quite felt the truth of Dr. Payne's objections, and his idea would be that in some cases the dilatation did not take place till very late, when the stomach was tired out with vomiting.

Osteitis Deformans.

Mr. Henry Morris showed photographs of a man suffering from this disease. He was fifty-two years of age, and a painter by trade, he had had no lead-poisoning, and no rheumatism or syphilis. For three years past he had been subject to gout. His family history was good, except that his father had suffered from gout and lead-poisoning. This complaint began twelve years ago in his right thigh with cramping pains, then the tibia became affected, and then the left leg; the legs soon became bowed, the patellæ were enlarged, the spine much curved, the ribs enlarged and their ends headed, and the clavicles enlarged. The lower jaw, the lower ends of the tibiæ, and the bones of the feet were unaltered. The bones of the cranium were a little enlarged. He had lost five inches in height. He had signs of mitral valve disease, and was passing a diminished amount of urea. The case corresponded exactly with those described by Sir James Paget.

Mr. Treves remarked on the absence of any affection of the bones of the arms, the clavicles excepted, and noticed that this was always the case in men. When the bones of the arms were affected the patient would be certain to be a woman. The loss of stature in this case was probably entirely due to the curvature of the spine; but in some cases it was due to the shrinking of the vertebral column in a vertical direction. He had recently seen a case of syphilitic bone-disease in which the deformity produced was exactly similar to that found in osteitis deformans.

Mr. Noble Smith asked what treatment had been adopted in this case. Sir James Paget had found that iodide of potassium did harm. For his own part, he believed that general tonic treatment was beneficial. The bones that usually suffered most were those that had to support the weight of the body.

Dr. Wilks quite agreed about the inutility of iodide of potassium in this disease. Indeed, he had yet to learn that that drug could exert the smallest influence over bone when fully developed.

Congenital Malformation of Heart.

Dr. F. C. Turner showed this specimen. There was only one ventricle, from which arose the aorta; behind this was a fibrous cord, evidently the completely closed pulmonary artery. The ductus arteriosus was patent. The ventricle was evidently the right; it was somewhat quadrangular in shape; a fleshy mass represented the only trace of the left ventricle. There was one capacious auricle (the right) with two appendices, of which the right was the larger. There was no trace of the left auricle. The child was fifteen months old at the time of death. It was born at the full time, and had always been puny. There was no cyanosis until shortly before death.

A Case of Osteomalacia.

Mr. Barwell showed a female dwarf, aged seventeen, suffering from some form of this disease. She was a native of Staffordshire, and her family history was good. It was not known whether the affection was congenital or not. Very few of the bones had escaped, the tibia, right humerus, and left olecranon being perhaps the most distorted. There was no beading of the ribs, and no enlargement of the ends of the long bones. The bones were not thickened. When between nine and thirteen years of age she had broken her arm four times, and she had also broken her leg several times. He believed that in these cases there was a hypertrophy of the central marrow—in fact, a condition of excentric atrophy. In a similar case, where he chiselled the femur, the bone was very soft, and there came out about five drachms of oil.

Malformation of Right Auricle.

Dr. Norman Moore exhibited the heart of a woman aged thirty-three years, in which all the cavities were somewhat hypertrophied and dilated, the aortic valves incompetent and thickened. The cords and edges of the mitral valve were thickened, and the flaps adherent to one another. The edge of the tricuspid and some of its cords were slightly thickened. There was considerable narrowing of the mitral orifice, and a slight degree of tricuspid stenosis. The left auricle was very capacious, and its endocardium much thickened and puckered in several parts. The septum of the auricles was complete, and the fossa ovalis less distinct than usual. The right auricle near the septum was divided into two portions by an oblique transverse partition. This partition was of the same structure as the walls of the auricle, and its anterior half twice as thick as its posterior. It stretched one inch into the auricle. It began just below the fossa ovalis, and stretched from the septum of the auricles near the orifice of the inferior vena cava, ending on the posterior wall of the auricle. The valve of the coronary sinus was of the usual form, and might be seen beneath and quite free from this projection. In the middle of the free edge of the projection was seen a thickening one-quarter of an inch long, and the free edge was rounded and slightly thicker than the main part. The origin from the auricular wall was thicker still. Dr. Moore had seen one other example of this variety. It was probably developed in connexion with the Eustachian valve.

Stricture of Intestine at the Ileo-cæcal Valve.

Dr. Norman Moore next showed a stricture of intestine at the ileo-cæcal valve. The ileo-cæcal valve was narrowed so as only to admit a large probe. For three inches and a half above the stricture the intestine was ulcerated and thickened, and below it in the large intestine for some inches there were ulcerated and thickened patches. All the abdominal glands were normal, and no new growth was found in any other part. Microscopic examination showed at the stricture a new growth consisting of abundant round cells, penetrating all the parts of the intestinal wall. The patient was a man who died in St. Bartholomew's, under the care of Dr. Andrew. On October 18 an attack of obstruction of the bowels began. He had had no previous attack. On November 1, his bowels not having acted since October 18, colotomy on the right side was performed by Mr. Howard Marsh. The opening was made two inches below the valve in the large intestine. At the time no fæces came away, but the next day a large quantity were discharged through the wound. He died on November 4.

Tubercle of Liver.

Dr. Norman Moore then showed the liver of a man aged forty-nine, who had been under the care of Dr. Andrew, in St. Bartholomew's Hospital, and who died of tubercular pulmonary phthisis with ulceration of the larynx. The liver was studded throughout its substance with numerous whitish growths, most of them of the size of a large pin's head. Microscopic section showed that these were tubercles; giant cells might be found in most of them. In some of them the cellular elements were not at all degenerate; in others caseation had taken place; all showed a considerable amount of connective tissue. Dr. Moore said that Virchow, Cornil and Ranvier, and Rindfleisch described tubercle as often found in the liver in the general tuberculosis of children, and Virchow stated that it more often occurred in the liver than was generally thought; but cases in which the whole liver was infiltrated at so late an age as forty-nine, in phthisis with cavities in the lungs, were certainly rare in London.

Elbow-joint of Scarlatinal Rheumatism.

Dr. Norman Moore also showed this specimen. The left elbow-joint showed thickening, with some roughness and one small adhesion. It was found to be full of pus when opened, and so were the right elbow and the terminal joint of the right index-finger. There was pericarditis, and in the lower lobe of the left lung a patch of pneumonia. There was general peritonitis. In each kidney there was a small embolic abscess, but no other abscesses were found either in the head or the body, and there was no ulceration of the fauces. The patient was a girl, aged six years. One of the family had died of scarlet fever, and on September 28 this child was sick, and had a well-marked scarlatinal rash. On October 10 she had rheumatic pains. On admission, under the care of Dr. Gee, on October 19, she was desquamating, and had swelling of both elbows. The urine was albuminous. Her temperature was 100, and continued high, twice reaching 104·9°. Under chloroform pus was let out of the right index-finger. She sank, and died on October 23. The case was of interest as bearing on the question of the pyæmic or non-pyæmic nature of scarlatinal rheumatism. In its anatomical features this case was undoubtedly pyæmic.

Dr. Mahomed wished to protest most strongly against Dr. Moore's case being considered as typical of post-scarlatinal rheumatism. In his experience a large proportion of scarlatina patients got typical acute rheumatism amenable to salicylic acid, but less severe than the ordinary rheumatism. There was also a septicæmic form which sometimes proved fatal, but without pus in the joints. Dr. Moore's case was a typical one of pyæmia, and there was no acute fever that was not occasionally followed by an attack of pyæmia.

Dr. Wilks asked if any source had been found for the pyæmia. Sometimes such a source was to be found in the throat.

Dr. Moore, in reply, said that he had been unable to find any pyæmic focus; the throat had been carefully examined from that point of view. He could not quite agree with Dr. Mahomed from a pathological point of view, and it was from this aspect alone that he had brought the case forward.

Mr. Barwell made some remarks on the clinical interest and importance of these cases.

Symmetrical Gangrene in a Child.

Dr. Southey exhibited the body of a female child, aged two and a half, showing gangrene of both legs and the backs of both thighs. Over the calves the colour was quite black; elsewhere a deep purple or dull red. On each buttock was a large discoloured patch, the centre of which, about the size of the palm of one's hand, was quite black. At the back of each arm, at the junction of the upper with the middle third, was a similar patch of discoloration about the size of a crown-piece, and black in the centre. Everywhere the affection was absolutely symmetrical. He gave the following history of the case:—Between two and three months ago the child had a feverish attack with purpuric spots on the legs, but this soon passed off. On November 13 she was feverish again for a few days, but no spots appeared. On December 1 she complained of headache, but on the following morning seemed quite well again. In the afternoon of that day (*i.e.*, last Saturday, December 2) she complained that she had hurt her legs, and when her father rubbed them she begged him to stop, as that hurt her. Both calves were then noticed to be livid. She vomited, complained of headache, and was feverish. The patches extended upwards and downwards on the legs; during the night the arms became affected, and on the following morning (Sunday, December 3) the buttocks also. She was brought to St. Bartholomew's Hospital at noon on that day; then the discoloured patches were tough; there was no pulse in the legs; there were no abnormal sounds in the chest; the urine was albuminous. Convulsions set in at 7 p.m., and lasted till her death shortly before midnight, or just thirty-two hours from the appearance of the first symptom of illness. Shortly before death the cheeks began to get discoloured; but this had not persisted, and was no longer evident. The arteries had been traced down the left leg, and no plugging was found anywhere. M. Raynaud had given the best description of this disease hitherto. He believed that these cases were due to spasm of the arteries with migration of the corpuscles, and on this hypothesis he had given some nitro-glycerine; but neither this nor food were at all well borne by the stomach.

Dr. Norman Moore had examined some of the blood from this child's heart, and found fat-globules in it.

Stricture of Œsophagus.

Mr. Eve exhibited a recent specimen of this disease. A microscopical examination had not been made, but it was probably scirrhus. The stricture of the œsophagus was about its middle, and had two or three fistulæ; one of these communicated freely with a large cavity at the apex, which was ragged and sloughy, and contained a good deal of food. Bougies had often been passed with relief, but no food had been given through the tube. The same patient also

presented a curious malformation of the ascending colon, which was so curved on itself that it was altogether absent from the right flank.

RUPTURE OF MIDDLE MENINGEAL ARTERY.

Mr. EVE also showed the skull-cap of a man who died, an hour and a half after a blow on the head, from rupture of the middle meningeal artery. In this case the artery had not merely grooved the bone, but actually tunnelled it, and the bone being fractured here, the artery had been of necessity ruptured.

AN UNUSUAL STATE OF THE EPIGLOTTIS.

Dr. D. B. LEES showed the larynx and epiglottis of a female infant, one year old at death. The epiglottis was folded backwards on itself from side to side, so that the opposite sides were touching. The child had been the subject of "inspiratory crowing" since birth, and this state of the epiglottis had been recognised with the laryngoscope during life.

CARD SPECIMENS.

Dr. F. C. TURNER—Ascaris Nystax; Tænia Elliptica.
Dr. D. B. LEES—Cranial Bosses in Congenital Syphilis.

MEDICAL NEWS.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 30:—

Helton, Richard, Lincoln.
Masters, Alfred Thomas, Westbury-road, Westbourne-square, W.
Osborn, Frank Charles, Keppel-street, W.C.
South, George, Peckham.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Bowhay, Albert, Charing-cross Hospital.
Burrows, Walter Hornecastle, Charing-cross Hospital.
Joshua, Charles Langford, Charing-cross Hospital.
Wise, Walter, Middlesex Hospital.

BIRTHS.

BOWEN.—On November 25, at Kirkley, South Lowestoft, the wife of Edward Bowen, M.R.C.S., of a son.

CURGENVEN.—On December 1, at 41, Friar-gate, Derby, the wife of William Grafton Curgenven, M.D., of a son.

MARRIAGES.

BIGGS—HOPKINSON.—On November 28, at Taunton, John Maundy Biggs, L.R.C.P., of Child's Hill, North Wales, to Florence Elizabeth, second daughter of the late T. B. Hopkinson, Esq., of Neasden, Middlesex.

GRIFFITH—ROBERTS.—On November 21, at St. Marylebone, J. T. Griffith, L.R.C.P., etc., of Llwyn-onn, Penygroes, North Wales, to Harriet Annie, youngest daughter of the late John Roberts, of Marylebone.

DEATHS.

CROSS, ALEXANDER, Deputy Inspector-General of Hospitals and Fleets, at Nile Cottage, Gillingham, Chatham, on December 3, aged 77.

HANKS, HENRY, L.R.C.P., M.R.C.S., L.S.A., at 146, Mile End-road, E., on December 3, aged 54.

JENKINS, SOPHIE PAULINE, wife of James Jenkins, M.D., C.B., R.N., at Nevinston, Mannamead, Plymouth, on December 1.

O'FARRELL, HARWARD, M.D., F.R.C.S.I., J.P., at Tangier, Boyle, Ireland, on November 25, aged 71.

SARGEANT, ARTHUR, F.R.C.S., at 48, Eardley-crescent, West Brompton, on November 24, aged 46.

SMITH, FREDERIC, M.R.C.S., L.S.A., late of 730, Old Kent-road, London, at Retford, on November 30, aged 43.

WILSON, WILLIAM SAMUEL, L.R.C.P., M.R.C.S., at Percy Lodge, Sandown, Isle of Wight, on November 30, aged 43.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—House-Physician. Salary £100 per annum, with board, residence, and washing. Candidates must be registered as legally-qualified medical and surgical practitioners. Applications, stating age, with copies of recent testimonials as to moral character and professional ability, to be sent to W. Maw, Secretary (endorsed "House-Physician"), on or before December 6. The election will take place on December 15.

BURY DISPENSARY HOSPITAL.—House-Surgeon. Salary £120 per annum, with furnished apartments, board, fuel, and lighting. Candidates must be registered under the Medical Act, 1858, in both medicine and surgery, and be unmarried. Applications, with testimonials as to qualifications and character, to be sent to the Hon. Secs., J. W. Kenyon, Market-street, Bury, on or before December 18.

GENERAL LYING-IN HOSPITAL, YORK-ROAD, LAMBETH, S.E.—House-Physician. (*For particulars see Advertisement.*)

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, W.C.—Opthalmic Surgeon. (*For particulars see Advertisement.*)

MONMOUTH UNION.—Medical Officer and Public Vaccinator. (*For particulars see Advertisement.*)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Dental Surgeon and an Assistant Dental Surgeon. Candidates must possess an L.D.S. degree. Applications, with testimonials, to be sent to Arthur G. Klugh, Secretary, on or before December 22.

NORTH-WEST LONDON HOSPITAL, 18 AND 20, KENTISH TOWN-ROAD, N.W.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, Edinburgh, or Dublin. Applications, with testimonials, to be sent in on or before December 16.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

ST. PETER'S HOSPITAL FOR STONE, HENRIETTA-STREET, COVENT-GARDEN, W.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Applications, with testimonials, to be sent to the Secretary on or before December 9. The appointment will be made on December 14.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary £80 per annum, with board, residence, and washing. Candidates must be surgically qualified, registered, and unmarried. Applications, stating age, etc., enclosing diploma and certificate of registration, with testimonials, to be sent to the Honorary Secretary, William Bache, Esq., Churchill House, West Bromwich, on or before December 9.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Physician. Salary £100 a year, with board, washing, and lodging. Candidates must be graduates of a British university, or be possessed of such medical qualifications as are satisfactory to the Medical Committee and the Weekly Board. Canvassing disqualifies. Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received not later than December 4. The election takes place on December 12.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Carlisle Union.—The Fifth District is vacant by the death of Dr. James Braid: area 5370; population 3507; salary £100 per annum.

APPOINTMENTS.

Easthampstead Union.—James Russell, M.D., M.C. Aber., M.R.C.S. Eng., to the Sandhurst District.

Guiltcross Union.—Joseph H. Wilson, M.R.C.S. Eng., L.S.A., to the Second District and the Workhouse.

Longtown Union.—Alexander W. Stirling, M.B., C.M. Edin., to the High District.

Pontefract Union.—Thomas Johnson, L.F.P.&S. Glasg., L.R.C.P. Edin., to the Second District.

Thame Union.—Timothy W. Lee, M.R.C.S. Eng., L.S.A., to the Workhouse.

Tynemouth Union.—Charles W. Robinson, L.S.A., M.R.C.S. Eng., to the Tynemouth District.

COLLEGE OF PRECEPTORS' EXAMINATIONS.—The half-yearly examinations of the College of Preceptors began on Tuesday last, and were carried on simultaneously in London and at fifty-five local centres in various parts of the country. The entries for them exceeded 8000. A supplementary examination, for the preliminary literary subjects required for students of medicine, law, the Royal Veterinary College, the Pharmaceutical Society, and other bodies by whom the certificates of the College are recognised, will be held in March next in London and at four provincial centres, viz., University College, Liverpool, the Leeds Medical School, Queen's College, Birmingham, and University College, Bristol.

BORACIC POMADE.—Championnière gives the following formula—Acid. bor. gr. vj., vaseline gr. xxx. The acid to be very finely powdered and incorporated. To this may be added balsam Peru ℥viij., to give it an agreeable odour. The ointment being antiseptic and non-irritant, it may be used for excoriations, superficial wounds, eczema, intertrigo, and especially the eruption on the buttocks of infants. In fœtid perspiration of the feet it may be applied, after bathing, with excellent effect.—*Phil. Med. Times*, September 23. "Dr. Goodell recommends the following as an excellent healing ointment—Pulv. acid. boracic ℥ij., glycerine ℥j., vaseline ℥j.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on Monday, December 4 (George Busk, Esq., F.R.S., Treasurer and Vice-President, in the chair), Acheson George Bartley, M.D., M.A., David Edward Hughes, Esq., F.R.S., and George Law, Esq., F.R.G.S., F.Z.S., were elected members of the Royal Institution. Five candidates for membership were proposed for election. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 2, 1882.

BIRTHS.

Births of Boys, 1315; Girls, 1220; Total, 2535.
Corrected weekly average in the 10 years 1872-81, 2611·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	863	742	1605
Weekly average of the ten years 1872-81, corrected to increased population ...	869·6	877·4	1747·0
Deaths of people aged 80 and upwards ...	...	...	69

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	10	1	1	2	1	5	1	2
North ...	905947	1	20	12	5	7	1	8	...	2
Central ...	282238	...	6	4	2	1	...	3	...	...
East	692738	1	15	23	2	1	...	1	...	4
South... ...	1265927	3	25	12	8	3	...	12	3	6
Total	3816483	5	76	52	18	14	2	29	4	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29·702 in.
Mean temperature ...	37·4
Highest point of thermometer ...	48·1°
Lowest point of thermometer ...	27·3
Mean dew-point temperature ...	33·5°
General direction of wind ...	Variable.
Whole amount of rain in the week ...	0·29 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 2, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Dec. 2.	Deaths Registered during the week ending Dec. 2.	Annual Rate of Mortality per 1000 living from all causes.	Temperature of Air (Fahr.): Highest during the Week.	Temperature of Air (Fahr.): Lowest during the Week.	Temperature of Air (Fahr.): Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.): Weekly Mean of Daily Mean Values.	Rain Fall: In Inches.	Rain Fall: In Centimetres.
London	3893272	2535	1605	21·5	48·1	27·3	37·4	3·00	0·29	0·74
Brighton	109595	59	47	19·0	49·0	26·0	37·9	3·28	0·30	0·76
Portsmouth ...	129916	74	37	14·9	...	...	...	...	...	...
Norwich	88821	66	39	22·9	...	...	...	...	...	...
Plymouth	74449	50	29	20·3	51·2	33·0	43·2	6·22	0·79	2·01
Bristol	210134	137	77	19·1	50·0	27·0	39·4	4·11	0·21	0·53
Wolverhampton .	76756	43	29	19·7	45·2	28·2	36·7	2·61	[illegible]	2·13
Birmingham ...	408532	309	184	20·9	...	...	...	...	...	...
Leicester	126275	9	42	17·4	45·2	25·0	36·7	2·61	0·65	1·65
Nottingham ...	193573	125	91	24·5	45·0	25·5	35·4	2·44	0·36	0·91
Derby	83587	65	30	18·7	...	...	...	...	...	...
Birkenhead ...	86582	59	30	18·1	...	...	...	...	...	...
Liverpool	560377	384	302	28·1	45·5	32·2	39·2	4·00	0·61	1·55
Bolton	106767	91	30	14·7	44·5	26·2	36·8	2·67	0·92	2·34
Manchester ...	341211	253	170	26·1	...	...	...	...	...	...
Salford	184204	139	68	19·3	...	...	...	...	...	...
Oldham	115572	77	54	24·4	...	...	...	...	...	...
Blackburn	106460	97	55	27·0	...	...	...	...	...	...
Preston	97656	80	42	22·4	...	...	...	...	...	...
Huddersfield ...	83418	39	38	23·8	...	...	...	...	...	...
Halifax	74713	41	40	27·9	...	...	...	...	...	...
Bradford	200158	128	70	18·2	44·0	[illegible]	37·2	2·80	0·26	0·66
Leeds	315998	217	147	24·3	48·0	25·0	38·1	3·39	0·56	1·42
Sheffield	291516	198	124	22·3	46·0	22·7	36·6	2·56	0·41	1·04
Hull	158814	111	77	25·3	[illegible]	23·0	35·5	[illegible]	...	...
Sunderland ...	119055	98	59	25·9	[illegible]	30·0	38·2	3·44	0·29	0·74
Newcastle	147626	104	81	28·6	...	...	...	...	...	...
Cardiff	86724	60	45	27·1	...	...	...	...	...	...
For 28 towns ...	8469571	5729	3615	22·3	50·0	22·7	37·5	3·23	[illegible]	1·17
Edinburgh	232440	138	92	20·7	42·3	28·2	35·7	2·05	0·38	0·97
Glasgow	514048	381	274	27·8	45·0	29·0	36·8	2·67	0·42	1·07
Dublin...	348293	186	171	25·6	46·1	27·8	38·5	3·61	0·50	1·27

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·70 in. The lowest reading was 29·12 in. at the beginning of the week, and the highest 29·99 in. on Tuesday evening.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

M.R.C.S. Eng.—Yes; all members of the College will be admitted to hear Sir James Paget's lecture on the 13th inst., and we are requested to state that the hour fixed for the delivery is *three o'clock*, and not four, the usual hour of the College lectures.

"Off" Licences.—The Queen's Bench Division has confirmed the decision of the Salford Hundred Quarter Sessions in an important appeal relating to the refusal of "off" licences for the sale of intoxicating liquors. The Court held that the magistrates had full power to refuse to renew existing licences.

A Competitor is informed that essays for the Collegial Triennial and Jacksonian Prizes should be sent to the Secretary of the Royal College of Surgeons on or before Saturday, the 30th inst.

The Action against Two Doctors at Greenock: Damages £500.—Touching this action against Dr. Gordon Clarkie and Dr. Dobie, it will be remembered that a girl was under treatment for a tumour in the left eye, and was put under chloroform for the purpose of an operation. While the operation was proceeding she became sick, and shortly afterwards fell into a state of coma, and died in that state. For the death of his daughter the father sued the defendants for £500 in damages, alleging that the fatality occurred from unskilful treatment. Sheriff Smith finds, in law, that the defendants are in no respect answerable for the child's death; thereafter assoilzies the defendants, and finds them entitled to expenses.

Dr. Davis.—You will find an abstract of the late Mr. Gulliver's paper on "The Formation of the Buffy Coat of the Blood," read at the Royal Medical and Chirurgical Society, in the *Medical Times*, vol. xi., page 453.

Open Spaces.—The Corporation of London, seeing the danger of the under-mentioned commons being yet more encroached upon, have purchased the manorial and other rights over about 347 acres of common land, known as Coulsden, Kenley, Riddlesdown, and Farthingdowns, in the vicinity of Croydon and Caterham, at a cost of £7000, and secured them for the use of the public in perpetuity.

Dr. Morris.—The calendar is sold at the College of Surgeons for 1s., and contains all the information you request us to procure for you. The number of Members on the list is 16,093, but adding the Fellows, viz., 1186, there is a total of 17,279.

Inquests: A Novel Question.—It appears the question has been submitted to the coroners and the Registrar-General as to the necessity of holding inquests under the statutes upon persons dying within a year and a day from the infliction of violence in war. It is said that the question has now arisen as to whether inquests are necessary, and even imperative, upon the bodies of those wounded in the late Egyptian War, and dying within a year and a day in England from their wounds. It is remarked that it is eminently desirable that post-mortem examinations should be made in such cases, no doubt, but as to inquests the reasonableness does not seem so clear.

An Old Licentiate.—The College of Physicians was formerly located in Warwick-lane, Newgate-street, where the anatomy lectures were delivered by each Fellow in his turn. Due care was taken that the subjects should be "decently buried in wooden coffins." In the burial register of St. Martin's, Ludgate-hill, we read—"1615. February 23 was buried an anatomy from the College of Physicians."

Scarlet Fever: Dover.—This disease has broken out again in the borough, and is giving the sanitary authorities a good deal of trouble.

Hospital for Eccles.—It is proposed to erect a hospital in Byron-street, Patricroft, at an estimated cost of £2000. A few beds will be provided for accidents and other surgical cases. The site for the hospital, valued at between £300 and £400, was a few months ago presented to the Committee by Mr. Emil Reiss, of Broom House. Towards the cost of the building £1900 has been subscribed.

An Old Member.—Perhaps you will be allowed to see Jeremy Bentham, who now reposes in a back room in University College, on application to the Secretary of that institution. He left his body to his intimate friend and physician, Dr. Southwood Smith, with a view to the removal of the strong prejudice then existing against dissection, charging him to devote it to the ordinary purposes of science. We are graphically told that Dr. Smith faithfully discharged the office imposed on him, and in the old theatre of the Webb-street School of Medicine, on June 9, 1832, with thunder pealing over head, and lightning flashing through the gloom, he delivered the first lecture over the body of Bentham, "with a clear, unfaltering voice, but with a face as white as that of the dead philosopher before him."

East London Hospital for Children.—The quarterly report of this institution shows a satisfactory increase in the amount of subscriptions for the past half-year, as compared with those of 1881. The net proceeds of the festival dinner in June last were £175 1s. 6d.

The Will has been proved of the late Mr. Joseph Thomas Clover, F.R.C.S., of 3, Cavendish-place, Cavendish-square, W., the personalty exceeding £27,000.

Pollution of Darwen Waterworks.—The Local Government Board has held an inquiry at Darwen into the alleged pollution of the Darwen Corporation Waterworks by the Blackburn Rural Sanitary Authority through defective drainage at Tockholes. At the suggestion of the central authority the polluted Earnsdale reservoir has been cut off from the town's supply. The Sanitary Authority contend that the drainage is not deficient, and throw the onus of protecting the waterworks upon the Corporation.

Infirmary, Chelmsford.—The foundation-stone was laid last week of a new infirmary and dispensary in this town. The cost of the building is estimated at £6710.

Spirituous Liquors and Tobacco, Prussia.—A Bill has just been laid before the Lower House of the Prussian Diet, remitting the four lowest grades of the class tax, and taxing instead the trade in spirituous liquors and manufactured tobacco. The persons to be taxed under the Bill are those who sell wine, brandy, beer, or preparations of tobacco to others to sell again, or offer them to public auction. A graduated tax is proposed according to the extent of the transactions. Where the value of the transaction is less than one thousand marks, the taxation will be according to the population of the place.

Cremation and the French Assembly.—A number of influential members of the Chambers of Deputies, including M. Gambetta, have appended their names to a Bill presented by M. Paul Casimir Périer, with the object of making cremation optional in France. It proposes that any person may direct that his body after death shall be cremated, and, failing the expression of a desire to the contrary, that the relatives of the deceased may order the remains to be thus disposed of. Precautions are taken by certain articles against the possibility of the proposed law aiding in the concealment of crime.

What an Anti-vaccinator did.—At the Brighton Police-court, last week, the stipendiary magistrate denounced as the most atrocious admission he had ever heard, in the course of a vaccination prosecution, when one of the delinquents, among others, pleaded his child had had small-pox, and a dunitted that he had himself purposely conveyed the infection to it in his clothes. He handed in a certificate signed by a local practitioner to that effect, but the magistrate would not receive it, and called for oral evidence, where upon the delinquent said "that it was not so bad as vaccination." A fine of 10s. and costs was inflicted. The prosecution asked for a fine for exposing the child to infection, but that was left in abeyance. This anti-vaccinator's mode of evading the law involved the danger of spreading the infection to his neighbours and others—an offence which should meet with its merited reward.

Insignificant Fines for Milk Adulteration.—At the Hammersmith Police-court several milkmen were recently summoned for selling adulterated milk. The extent of the adulteration—added water—varied, but all the defendants were convicted and fines ranging from 10s. to 20s. inflicted. It is difficult to understand why magistrates will persist in imposing such utterly insignificant penalties.

Austral an Wines.—The manager of the London Australian Wine Company gives statistics, which are interesting, of viticulture in the Australian colonies for 1880 and 1881, compiled from the Government records. In South Australia there were 4337 acres of vines, producing 500,955 gallons of wine; in Victoria there were 4284 acres of vines, producing 574,143 gallons of wine; in New South Wales there were 4724½ acres of vines, producing 584,282 gallons of wine. And, from information he had received, these figures will be more than doubled in a few years.

Female Labour in the Black Country.—A meeting has been held at Halesowen, the object of which was to stop female labour in the chain and nail shops in this district. The President of the Nailmakers' Association said that a child had been starved to death at Halesowen through the mother working in a factory, and that many deaths had been caused by females performing heavy work in factories. It was resolved to memorialise the Government for an inquiry into the subject.

Increased Mortality in St. Petersburg.—The enormous increase of mortality in this city arising from epidemic disease, chiefly diphtheria, it is stated, is producing a very uneasy feeling. The police and the various medical and sanitary bodies have concerted a general plan of energetic action for dealing with the outbreak and for disinfecting houses; but although the municipality has voted 50,000 roubles, and a vast deal has been written on the question, nothing practically effective against the ever-increasing death-rate of this unhealthy city seems as yet to have been devised.

A Fatal Fever at Trinidad.—Mr. Scott Bushe, Crown Administrator of Trinidad, reports that "for nearly six months last year yellow fever, or fever of a most malignant and fatal type, prevailed in almost every part of the colony, cutting off both young and old, Europeans and natives, and even Indian immigrants on some of the estates. The Government lost several valuable public servants, including the Auditor-General and three medical officers, besides others who gave promise of useful service," and "all ranks of society," we are told, were invaded by the epidemic.

COMMUNICATIONS have been received from—

Mr. W. Gurner, London; Mr. A. W. M. Robson, Leeds; Dr. A. G. Barrs, Leeds; Dr. E. C. Seaton, Nottingham; Mr. Henry Grey, London; Mr. Blackett, London; Dr. A. T. Thomson, Glasgow; The Registrar of the Apothecaries' Hall, London; Messrs. Matza and Meltzer, London; Dr. Herbert Davies, London; Dr. Robert Perry, Glasgow; Dr. C. Mercier, Dartford; Mr. H. Morris, London; Mr. F. D. Rudler, London; Mr. John Bellamy, London; Mr. W. W. Reeves, London; Messrs. Street, London; The Registrar-General for Scotland, Edinburgh; Mr. E. Nettleship, London; Dr. Yandell, Louisville; The Secretary of the Royal Institution, London; Mr. Clement Lucas, London; Dr. Stephen Mackenzie, London; Dr. Byrom Bramwell, Edinburgh; The Secretary of the College of Preceptors, London; The Honorary Secretary of the Medical Society of London; Mr. J. Chatto, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Students' Journal and Hospital Gazette—Ophthalmic Review—Veterinarian—Boy's Own Paper—Sunday at Home—Leisure Hour—Girl's Own Paper—Girl's Own Paper—Monthly Homœopathic Review—Philanthropist—Archives Générales de Médecine—Edinburgh Medical Journal—Correio Paulistano—L'Impartialité Médicale—Glasgow Medical Journal—Ciencias Medicas—Philadelphia Medical Times—Field Naturalist, etc.—Dublin Journal of Medical Science—Midland Medical Miscellany—Birmingham Medical Review—Night and Day—Analyst—Practitioner—Indian Medical Gazette.

APPOINTMENTS FOR THE WEEK.

December 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

11. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Richard Davy will exhibit his Invalid Carriage. Mr. Walter Pye will show the subject of a Hairy Mole treated by Transplantation of Skin. Mr. Rose will show a case of Talpes treated by Excision of Tarsal Arch. Dr. C. Theodore Williams, "On a Case of Bronchiectasis treated by Tapping."

12. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute (4, St. Martin's-place, W.C.), 8 p.m. Mr. A. L. Lewis, "Note on some Flint Implements and Flakes from Cape Blanc Nez (near Calais)." Mr. A. W. Howitt, "On the Australian Class Systems."

Royal Medical and Chirurgical Society (Ballot, 8 p.m.), 8½ p.m. Mr. Frederick Treves, "On Resection of Portions of Intestine" illustrated by Diagrams and Pathological Specimens.)

13. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 p.m. Lectures and Demonstrations: Dr. Percy Kidd.

Hunterian Society, Royal Institution (Council Meeting, 7½ p.m.), 8 p.m. Dr. Ormerod, "On Two Cases of Locomotor Ataxy with Joint-Disease." Mr. R. Clement Lucas, "On Cases of Wounds of Large Vessels."

Royal Microscopical Society, 8 p.m. Ordinary Meeting.

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

Ophthalmological Society, 8½ p.m. Mr. Mules, (1) "On Hydatid Cyst in Orbit"; (2) "On Panophthalmitis following Purulent Ophthalmia." Mr. Lediard, "On Ivory Exostosis of Orbit." Mr. Snell, "On Chancre at Inner Canthus." Mr. Lang, Mr. Lawford, Mr. Stanford Morton, Dr. Edmunds, and Mr. Nettleship—Cases of Central Amblyopia in Diabetes. Living and Card Specimens at 8 p.m.: Dr. Samuel West—Sequel to a Case of Optic Neuritis. Mr. Gunn—Case showing Peculiar Appearances in the Retina. Drs. Edmunds and Lawford—Optic Nerve from a Case of Diabetes. Dr. Stephen Mackenzie—Drawing from a Case of Extreme Tortuosity of the Retinal Vessels.

15. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

THE "BRADSHAWE" LECTURE

ON

SOME RARE AND NEW DISEASES.

Delivered at the Royal College of Surgeons of England on December 13, 1882.

By SIR JAMES PAGET, Bart., F.R.S.

MR. PRESIDENT AND GENTLEMEN,—It is my first duty, in delivering the first Bradshawe Lecture in our College, to offer a tribute of respectful thanks to the generous lady by whom it was founded—the widow of Mr. William Wood Bradshawe, a Fellow of this College, who practised at Andover and at Reading, and died in 1863. He was a home-loving and studious man, who diligently cultivated his mind in both literature and science, and his widow, who survived him fourteen years, being desirous to testify her gratitude for the happiness which she owed to him, bequeathed a thousand pounds to this College, and as much to the Royal College of Physicians, on the condition that each should institute a lecture, to be given annually, and to bear his name. She desired that the lecture should be on some subject connected with medicine or surgery, and that the choice of the lecturer should rest with the President of each College for the time being. She made no stringent regulations, and seems to have wished only to maintain her husband's name in good repute by associating it with the advancement of the science which he loved.

In my endeavour to fulfil her exemplary wish, I have chosen the subject of "Some Rare and New Diseases." I hope to be able, in speaking of them, to illustrate a part of the natural history of disease which I think is too little studied—that part, namely, which relates to the variations and the combinations of diseases in hereditary transmission. Besides, both in the choice of its subject and in the whole enterprise of giving this lecture, I have looked for an opportunity of promoting pathology by promoting pathological museums—a motive which I am sure will be pardoned, though I am conscious of its being in some measure personal; for I have spent so much time and thought in museums, that I feel as if in their greater utility I should myself become more useful.

Now, first, respecting rare diseases, there may seem no want of opportunities of studying them. Our journals and the proceedings of our societies are full of the records of rare cases: many collections of such cases have been published, and there are many rare specimens in every museum. All these have that kind of attraction which belongs to everything that excites our wonder; but we too seldom let the wonder have its proper consequence—we too seldom let it provoke our curiosity so far as to make us search for the meaning and reason of the rarity. There is a question which we should often ask ourselves: Why is any disease rare?—at least, why is any rare which does not depend on some accident or some rarely occurring external cause? I shall try to suggest answers which may be, in some instances, sufficient; but I fear that in more instances, if I can be useful at all, it can only be by suggesting how answers may be found.

First, there is a difference, though it may often seem only a verbal one, between rare cases and rare diseases. A case may be called rare when, though it is evidently one of a common disease, it differs from the usual type or standard of that disease in some one or two features. Thus, it is a rare case when a common disease is found in an unusual place, as an epithelial cancer on the upper lip, or this fatty tumour on a finger; or in unusual quantity, as in this large cartilaginous tumour on a femur: or, again, a case may be rare in respect of the time of its occurrence. For instance, I have lately seen cancer of the rectum ending fatally in a lad of eighteen, and scrofulous abscess in a man of eighty; and many of us must have seen instances, though they are rare (and these are very important in the history of diseases), in which manifestations of syphilitic inheritance, usually evident in infancy, have not appeared till the time of youth or even of adult age; or cases may be very rare in respect of accidental complications or of the absence of some usual symptom. But of all these and other rare cases the number and variety are so great that it would be impossible to deal generally with them, except as with mere story-telling. It would be very useful if some one would collect hundreds or thousands of them, and arrange them, even though it were only under such headings as I have just indicated. But, even as they are, singly and in disorder, let me say that we ought not to set them aside with idle thoughts about "curiosities" or "chances." Not one of them is without a meaning; not one but might be the beginning of excellent knowledge, if only we could answer the question, Why is this rare? or, being rare, why did it in this instance happen?

But, because of their number and variety, I must pass by rare cases, and will speak only of some rare diseases—that is, of some diseases which are rarely seen, and yet occur in a sufficient number of cases, and with sufficient uniformity, and sufficient difference from other diseases, to permit of their being described in general terms, and to justify their being called by distinctive names. And of these again, for they are numerous and various, I shall select only that group which seems most attractive—the group of those, namely, of which there seems reason enough for believing: first, that they were, lately, new diseases and have become more frequent; and, secondly, that they are due mainly to morbid conditions changing and combining in transmission from parents to offspring. I say, due mainly. It is certain that changes in the external conditions of our life have influence on even those morbid conditions which are most personal; but this influence is very hard or impossible to trace in the cases which I have in mind, and it may to-day be neglected, though not forgotten. For, in all these cases, the personal factors, and those of which alone I have to speak, are more potent than the conditional, the inner than the outer. We call these diseases constitutional, diathetic, or by similar names; but the chief fact in them is that they, or the necessary previous states or predispositions to them, are inborn and inbred.

Let me first show that there is reason enough for believing that some rare diseases of this kind were recently—say within this century—new; and that more recently, though still rare, they have become more frequent. There is, I know, a general unwillingness among pathologists to admit that there are new diseases of this kind; and this unwillingness is often just, for many diseases that may seem new have probably existed long and been overlooked; they may be new to knowledge, but not new in fact. Bright's disease and Addison's disease were new in the sense of having first been well observed and described by those whose names they bear; but no one would venture to say of diseases so difficult to detect, as these used to be, that they did not exist long before they were well observed. We could as well believe that embolism never occurred till just before it was found out, or that right-side hemiplegia used not to be associated with aphasia. These things were old before they seemed to be new; but how long they had existed neither records nor museums can tell. It would be, indeed, very interesting if we could tell the time and manner of first appearing in the case of many diseases which are now common: but it is scarcely ever possible. And yet, if you will allow me a digression, let me show what in some instances museums may supply, and what I hope they will in the future supply much more largely. Here are specimens of typhoid ulcers of the intestines preserved by Hunter. Few things have been more important in the knowledge of fevers than the clear proofs of the distinction between typhus and typhoid given by Sir William Jenner in 1850. It was one of the best life-saving discoveries of this century; before it both diseases were at least partially misunderstood, and neither was so well treated as now. Since the distinction between them was discovered it has been possible to trace in old recorded cases probable instances of both; but there is nowhere so clear evidence of the occurrence of typhoid a century or more ago as is given in these specimens of Hunter's, preserved without name or history; not unobserved, and yet not in any fair sense understood. Now, in this, as in many things, Hunter set us a good example. He did not think those things unimportant which he did not understand. He was a thorough naturalist, and kept

specimens of everything in his field of study which, though not yet, might become useful.

But, however much of what seems to be new we may justly ascribe to our previous oversight of what was old, there yet seems to be evidence enough that new diseases are in progress of evolution, and that, as I have said, some of the rare diseases of which I have to speak are the earliest instances of the new. Good evidence of this kind is to be found, I believe, in the peculiar joint-disease discovered by M. Charcot in association with locomotor ataxy, and in the disease of bones to which I have given the name of osteitis deformans. Neither of these, I believe, was described till within the last few years. They may have been overlooked, but to believe this we must believe what is very improbable. We must believe that all the most acute and observant practitioners before our time overlooked, not merely obscure and transient diseases, difficult to study, but cases which lasted many years and gave constant great distress, and were manifested in signs so plain that they could be recognised in the shape and gait, in the posture and whole aspect of the patients, in strangely large heads and curved limbs. And, further, we must believe that the morbid anatomists before ourselves overlooked changes of structure of the largest, most obvious, and most striking kind. It is, surely, very unlikely that they who studied and recorded such cases as those of extreme rickets and mollities ossium, and even called it rachitis adultorum, should have left unnoticed the cases of these two equally and somewhat similarly disfiguring and damaging diseases. This great improbability is strengthened by that which I believe to be a fact—that we have none but recently collected specimens of either of these diseases in our museums; not even among the crowds of bones and joints collected by our predecessors.

In twenty-six years I have seen twelve well-marked cases of the osteitis deformans, and about as many in which it was only partially evident. In the last six of these years I have seen seven of these cases, and others have been published, and yet I cannot find evidence that the disease was ever seen by any of those who had practice like my own; Brodie and Stanley, who saw as many cases of diseased bones as any surgeons of the last generation, had seen no case but that which I showed them more than twenty-five years ago in the patient from whom these specimens were taken. Moreover, I cannot find an old specimen in our museums, or a representation of one in any book of plates, or a description of one in any catalogue. This might not seem very strange in the case of specimens troublesome or expensive to keep, or in such as are said to "show nothing." But these are very striking deviations from health, very plainly to be seen, and dry bones are neither costly nor troublesome to keep. We have large numbers of them collected by Hunter, Howship, Langstaff, Liston, Cooper, Stanley, and others, who collected not merely illustrations of diseases well known to them, but whatever was curious, whether it were understood or not. They would have looked on these bones as gems.

I might repeat this statement in nearly every particular concerning M. Charcot's disease. I believe there is not an old specimen in our museums. There is not one in the Musée Dupuytren; I cannot find a notice or an illustration of one. And yet this disease is now so far from being very rare that Dr. Buzzard has had nine cases under his eye at one time, and several have in recent years been shown in our societies.

Let me adduce one more instance of what I believe to have been new diseases within this century, though the museum evidence is not so strong as in those of which I have been speaking. Many believe, and, I think, quite rightly, that instances of typical gout, such as gained for it the name "podagra," have lately become comparatively rare, and that a large number of less acute diseases, regarded as forms of incomplete or suppressed gout, are much more frequent. It may be that some or many of these lesser forms were always as common as they are now, but were overlooked or were not distinguished from other similar ailments. But here is a specimen of the effects of phlebitis of the femoral and external iliac veins, which, with its history, may tell that gouty inflammation of the veins was, fifty years ago, if not a new disease, yet a much rarer one than it is now. Sir Henry Halford saw as much of gout, I suppose, as any man that ever lived; for he was for many years, during a very luxurious period, in the largest practice among the richest people in this town. He gave an account in 1832 of what he called phlegmasia dolens in the male. The disease so called was common and well known in women after parturition; so that, to justify his essay as a record of cases hitherto unobserved, it was enough for him to speak of phlegmasia dolens as occurring in men. He speaks of it as having been not long before regarded as "immediately occasioned by a deposit of milk"; but that "being tested by a more exact pathology," it was now attributed to "an inflammation of the veins of the pelvis." And he says, "he was much mistaken if he had not seen three instances of it" in men "within the last few years." He then relates the case of the nobleman from whom, several years afterwards, this specimen was taken by Sir Astley Cooper—an admirable example of phlebitis, which we may be nearly sure was gouty, showing the changes in the blood-clots and in the walls of the veins during many years.

At the present time, phlebitis of this kind in a male can scarcely be called a very rare disease. There are few, I imagine, in large practice who have not seen many more than three cases within the last few years. So we may believe, I think, that the disease has become more frequent in the last fifty years; and may suspect that not long before Sir Henry Halford's time it may have been a really new disease. It is hard to believe that it could have been overlooked. Its characters are strongly marked and evident to both eye and touch; it is a very painful, disabling, long-enduring disease, often recurring, sometimes observed in several members of the same family, and commonly leaving the affected limb large, heavy, and clumsy for many years. Could this have been overlooked when similar limbs, in consequence of an allied, though not the same disease, were known and described in women, and while, as it happened, the subject of phlebitis, in its traumatic and pyæmial forms, was being very carefully studied? For there was a form of phlebitis much more common in the last century than in this—the phlebitis that occurred after bleeding. Hunter had studied this very carefully, had written on it, and shown it in these specimens; and after him, both this and the phlebitis after amputation were well known. Especially after the beginning of this century the phlebitis after amputation was thoroughly worked at. It was only three years before the publication of Sir Henry Halford's essay that Mr. Arnott's renowned paper on Inflammation of the Veins was published in the *Medico-Chirurgical Transactions*. In the same volume are the chief papers by Dr. Robert Lee on phlegmasia dolens; and he describes cases of phlebitis associated with pelvic cancer; but not one spontaneous phlebitis is mentioned by either of them.

Now, I think that in all these facts there is enough, not, indeed, to prove, but to justify the belief, that we have here examples of diseases which have appeared in this country for the first time within the last century, and which have since become sufficiently frequent, and acquired sufficiently constant and distinctive characters, to be described in general terms and called by new names. Let me repeat: these are not diseases hard to be discerned; they are so well marked, so distressing, so long-enduring, and both during life and after death so large and distinct in all their characters, that it seems impossible that, unless they were very much rarer than they are now, they could have been overlooked.

I think it probable that there are other examples of the like kind; but I do not know them, and would rather go on to the second part of my subject—namely, to show the probability, or, at least, to justify the hypothesis, that these diseases are among the instances of the results of morbid conditions, changing and combining in transmission from parents to offspring.

It should hardly be necessary to argue that changes of type in inherited diseases—changes which may be compared with the variations of species or of varieties in natural history—do take place. Yet I venture to think that many of us are prone to think too little of these variations; to regard them as rather unmeaning exceptions, or as the results of some unusual external conditions diverting diseases from their customary course.

It will be better for us if we study, in pathology as in natural history, varieties as much as species; changes as well as more stable forms. Types of disease there are, standard forms, and the tenacity with which they are maintained—some even from pre-historic times—in all the varieties of the conditions of our lives is one of the most remarkable facts in all pathology. But they are not un-

alterable. Types vary in diseases, as in species; even in the diseases which depend least upon external conditions, and most on the qualities which are transmitted by inheritance.

Let me give some reasons why this must be.

1st. An exact likeness is never transmitted by inheritance; neither an exact likeness of either parent, nor an exact composite of both. This is evident enough in features, size, weight, and all that we can observe in external things. If we could be exactly endoscopic we should observe equal variation within; the same want of exact likeness in liver and lung, and, I venture to say, in blood and lymph and plasma, and whatever goes to make up the whole person, healthy or diseased. The inheritance of likeness in disease, or liability to disease, is, indeed, clear evidence of the transmission of likeness in the very minutest structure and composition. But the likeness is never perfect—it may in different persons deviate this way or that; it may vary towards disease or back again towards the healthy type; but it is never perfect, and in successive generations its degree of unlikeness may increase to a great width of difference.

2nd. The certainty and probable extent of this variation must seem the greater if we consider the mingling of diatheses, and of all dispositions and liabilities to diseases in transmission from and through both parents. Consider the difficulty of maintaining the "breed" in any of the varieties of the species domesticated or cultivated by us, in horses or dogs, in pigeons, or in seedling plants; the care that both parents should be of the same blood, or the same race, and that their produce should be raised in all due conditions; and then consider how numerous and wide, in spite of all this care, are the deflections from the type. With these facts before us we cannot imagine that diseased conditions should often be transmitted singly and unchanged; it is, surely, not likely that disease should be transmitted with more fixed conformity to type than normal compositions are. Hybrids and mongrels must be even more common among diseases than among species and varieties.

3rd. And, in thinking of the variation of diseases by combining or convergence of inherited qualities, we may not limit our thoughts to a single generation. It is reasonable to believe that instances occur of reversion, in which diseases or tendencies to disease may appear after a lapse of many generations. Such, I expect, are some of the cases in which leprosy has been seen, even of late years, in this country in persons never exposed to any of its external causes; and to the like of this we may refer, I think, some of the rare cases which defy all efforts to refer them to any combination of types of disease now prevalent.

Now, I half wish that I could escape from the necessity of testing my doctrine by my facts; but, as I have often asked myself, so others may ask—How can the cases of rare diseases of which I have been speaking be explained as the results of morbid conditions changing and combining in transmission from parents to offspring? In the phlebitis we may often trace a variation from the customary type or standard of the very old and heritable disease, gout. In many cases its relations to typical gout are clear. The patients are members of gouty families, and in many of them other signs of gout are evident, either coincidently with the phlebitis or at other times; it has, in short, all the evidences of being one of the many forms of what is called "incomplete gout." But, for a reason why this variety of gout settles (if I may so speak) in veins, especially in those of the lower extremities, I can only guess at a convergence of inherited dispositions both to a modified form of gout, and to some conditions of veins rendering them, among all the structures, the most sensitive to the gouty process. Certainly it is not accident which determines the disease to the veins, for this disease "runs in families." I know of its occurrence in two brothers and three of their cousins; and I have heard Sir Charles Locock tell of four sisters who had phlegmasia dolens, and whose father had crural phlebitis.

I am conscious that this is little more than guessing, and for the osteitis I must guess still further; or, rather, let me say that, to the furthest bounds of propriety, I must exercise that use of the imagination which may happily discern a way towards the truth. I imagine, then, that a likeness of the osteitis deformans to several other diseases may indicate a combination, in definite proportions, of transmitted dispositions to those diseases; a combination which has become possible by changes of the type of one or more of them. First, it shows some relationship to mollities ossium and rickets, for, though it is an inflammatory disease, which they are not, yet the softening which permits of the curving of the bones is distinctive, and hardly occurs in any other form of inflammation of bone in middle or later life. And, again, the relation of the osteitis to rickets and mollities ossium is notably indicated in the porous thickening of the skull, which is found in some instances of them all, and which is well marked in our specimens of genuine rickets from erroneous diet in young lions and young monkeys. Further, there appears some relation to gout, for some of the cases have known inheritance of gout, and instances are sometimes seen, in typically gouty persons, of a single bone having all the characters of the osteitis, though all the other bones appear healthy. Such a one is this femur, for the opportunity of showing which I am indebted to Mr. Bowlby, of St. Bartholomew's. There is a likeness also, it may be said, to the osteo-arthritis and other forms of rheumatic gout in the remarkable maintenance of good general health during even many years of a painful and crippling inflammatory disease; and, further, there appears some relationship to cancer in the singular frequency with which cancer or sarcoma occurs in the healthy bones or other parts of those who have suffered for many previous years with osteitis deformans.

Thus, I imagine, by inherited dispositions, accumulating and combining or converging in definite proportions, this disease may be produced. I would try to imagine the genealogy of M. Charcot's disease, but that I have too little clinical knowledge of it. I can only suggest a combination of osteo-arthritis with syphilis, chiefly localised in some spinal nerve-centre; but I believe far better suggestions may be made by those who, suspecting a combination of diseases rather than many radiating from one source, will carefully study the essays of Professor Charcot and Dr. Buzzard's admirable "Clinical Lectures on Diseases of the Nervous System." Besides, I may seem to have guessed already more than enough. Let me, therefore, say that, even if my guesses are wrong, my error cannot weaken the probability of the belief that these and other rare diseases of like kind are instances of settled varieties of diseases, severally due to variations and convergence of morbid conditions in hereditary transmission. And if this be in any measure true, or even not more than a reasonable hypothesis, then it must be of great importance that we should know much more than we yet do of the variations which, in progress of time, diseases, or certain examples of them, may undergo; of their deviations in a gradually increasing number of instances from typical or standard forms; their acquirement in those instances of other comparatively fixed and long-abiding characters; of the occasional disappearance of old forms of disease, and the evolution of new ones. Such variations in diseases should be studied as Darwin studied the variations of species. Let me be clear in saying, as Darwin studied; for in the pursuit of new knowledge he may be a model to all, as he has been to me so far as I could imitate him. He, as I know, would have studied these things, not by deduction, as from a law exactly formulated and from which he could trace the course of every change, but by a most careful collection of facts, facts to be seen in specimens and read in full records, and stored in museums, and by a study as complete for every case as if no law of evolution had ever been discovered.

Let me add that the study of these variations of diseases is not one of mere pathological curiosities. It may be of great practical utility; let me show how, if only that I may provoke some to pursue it vigorously to whom mere pathology is not attractive. We hear much, and often, of the uncertainty of medicines; of disappointments in the use of this or that supposed remedy; and substances which have long been in good repute for the treatment of this or that disease are spoken of with disrespect. It need not be questioned that in many cases the belief in the utility of a medicine has been maintained by completely erroneous observations. Such was the belief in the utility of infinitesimally small doses of anything ever yet swallowed. And other beliefs less evidently absurd may have been nearly as ill-founded. But there are many of which this is not to be said. It cannot be doubted that bromide of potassium is often very useful in epilepsy; yet sometimes, as we say, it fails; or that guaiacum is useful in some cases of chronic rheumatic arthritis, and is in others very disappointing; or that arsenic sometimes does and sometimes does not do

good in cases of lymphadenoma. I suppose there is not a medicine in the Pharmacopœia which does not sometimes disappoint him who gives it hopefully; not one which is not, therefore, spoken of with contempt or blame, as if it were a responsible agent convicted of default. But here is an unfair imputation. It is not these medicines which are in fault, but ourselves. That which some call the fallacy of therapeutics is generally the fallacy of diagnosis. To state the facts roughly, we suppose cases to be alike which are really different; and, very naturally, the medicine that does good in some of them is useless in others. For example, in the group of cases which I chiefly have in view, we do not always discern when a disease has varied so far from its usual type that it is no longer amenable to its usual remedies. A better diagnosis must precede a better therapeusis. We need not only the diagnosis between diseases essentially different, but that between the different and varying forms of each of those which we call by a generic name; and beyond this, we need a more exact power of what may be called analytic diagnosis; for there are few simple cases, and in those which are not simple we need to be able to discern all the components, and the proportions in which they are mingled or combined. Better treatment will follow better diagnosis, and better diagnosis will certainly follow a more exact pathology.

Let me illustrate this with an instance which is besides of some interest in the study of the variations of transmissible diseases and of the utility of museums. Questions are often asked as to changes which syphilis may, in course of time, have undergone; and, especially, whether internal organs were always, as they are now, liable to its attacks. It is hard to answer such questions on the evidence of any existing records; indeed, I might cite the whole history of syphilis as an instance of the insufficiency of records for the tracing of the natural history of diseases. But here is something suggesting what museums may do: a portion of muscle preserved by Hunter, and at least a century old, in which are morbid changes which may be safely referred to syphilitic gumma. Probably similar evidence may be found in other museums; and there are other facts significant of the existence long ago of these internal syphilitic diseases, as well as of the improved treatment following better diagnosis. Fifty years ago, at the beginning of my professional studies, it was the custom, as it long had been, to give mercury not only in all recognised syphilitic cases and in most acute inflammations, but in a large number of cases of which one could scarcely say more than that they were all chronic and all obscure. Especially there were many such cases of what were considered chronic inflammation of the eyes, and of the brain and spinal marrow, the liver, and the testicle. To all of these cases it was customary to give mercury till, as one said, "the mouth was touched," and then some were cured, and some uncured, and some harmed. The cures were enough to keep the mercury in such good repute that it was given more and more generally; and then the disappointments, as they were called, became too many, and the mercury was blamed, and was almost disused for chronic inflammations. But, meantime, a more exact pathology, a pathology more exact both in its morbid anatomy and in its clinical studies, was discovering the previously unsuspected syphilitic diseases of internal organs; and with this better pathology there came a better diagnosis, and with the better diagnosis a more judicious use of mercury, and good reason to believe that the chronic and obscure cases which mercury used to cure were those of syphilis overlooked. The case is an exemplary one of the relations between the true pathology and the right treatment of diseases, exemplary not only for encouragement, but for method of study; for the study was both clinical and anatomical, in the living and in the dead, with records and with specimens. Such must be our study of all the cases which I have chosen to speak of—the cases in which diseases deviate from their usual type, or combine in various proportions, after the manner of hybrids and mongrels or new chemical compounds. But there are some rules in study which are especially applicable to these cases.

1. We should very carefully study all cases which are not according to an admitted type. We should study all exceptions to rules; never thinking of them as unmeaning or accidental. Especially, we should never use in its popular, but wrong, translation the expression "Exceptio probat regulam"; as if an exception to a rule could be evidence that the rule is right. If we use it, let this be in its real meaning; translating it, as surgeons should, that an exception probes a rule, tests it, searches it—as the Bible says we should "prove all things"—to its very boundary. In this true meaning the words may be an excellent motto for the study of all diseases that deviate from types.

2. We should look out for indications of the existence in the same person of two or more morbid conditions or dispositions, such as may be derived from both parents or from several ancestors. For, as in plants and animals there are hybrids and mongrels, or, as in chemistry, many compounds and mixtures, so are there in diseases. We see them in the multiform varieties of what we have to call rheumatic gout; in gout crossed with scrofula, and syphilis crossed or mingled with scrofula or with gout. It is often not difficult to discern some of these combinations among our cases, and I know few things in practice more useful than to be able, even in some instances, to adjust our treatment to the proportion of each disease in the compound. But we may be sure that there is much more to be learned in this direction; and it is best to believe that we rarely have to do with a simple and unmixed morbid constitution. There are few worse habits in practice than that of commonly saying of our case "It is all gout," and of another it is all scrofula or all syphilis. We might as well say of any Englishman that he is all Norman, or all Anglo-Saxon, or all Celt. We may, indeed, sometimes see persons who appear to be as types of races unchanged in many centuries, but in practice we had better study every man as, for better for worse, a composite of many ancestors.

3. We should have for all these cases a much more complete and exact study of all the personal conditions of disease than is now usual. Of course this should include all that can be learned of each patient's family history, though there are few parts of medical inquiry more fallacious than this often is; and at the best it will need, besides, the exactest study of the patient's self. Perhaps the brilliant success which has been achieved by the recent studies of disease-producing organisms or other materials acting on us from without—a success not equalled in any other field of medical inquiry—has made some think too little of those changes within ourselves which occur in such ordinary conditions of life that they may be called spontaneous. Yet these are not less important in the production of diseases, and these must be studied; just as in agriculture soils must be studied as well as seeds. This is true even in respect of those diseases whose essential causes are most evidently external, even of those which are due to specific contagia; their germs or seeds, if I may so speak, will not germinate in an unfit soil. I suppose there is not a day in which most of us do not inhale or come in contact with the germs of some frequent or contagious disease; but they do not germinate in us any more than do the seeds of tropical flowers in our streets or in the fields to which the wind scatters them; we do not offer the fitting soil. And even among those in whom they do germinate, the product varies according to the soil. And the study of this soil, this living soil, is yet more necessary in respect of diseases which come, in part or wholly, by inheritance; for it is in each as personal and distinct as any other constituent of personal character, and the study of it must be intimately personal, with an exact analysis of every disposition to disease. The aim of pathologists in this direction should be for knowledge like that of the keen family practitioner, who, as he says, knows the constitution of every member of a family.

All this is equivalent to saying that these variations in diseases must be studied both in practice and in scientific pathology. It is hopeless that either a practitioner who thinks lightly of pathology, or a pathologist who thinks lightly of observant practice, should do more in the study of these questions than attain to that measure of partial truth which is often as deceptive as error. Each must be tested by the other. The living and the dead must be alike and equally studied; and the dead must be studied in exact observations, with accurate records, and especially with museums.

I need not dwell on the value of good records, good descriptions, and good photographs, or other representations of diseases; but they never have been, and, probably, never will be, enough. We need, with them, museums in which changes of structure may be preserved for repeated and revising study and comparison. For instance, in regard to the group of diseases of which I have been speaking, we

ought to have in our museums specimens in which we might study all the gradations of change of structure from type to type, all the changes due to mingling of forms, all varieties of diseases, all hybrid forms. We need to be able to study all these things, as the naturalist or the comparative anatomist needs his specimens; not only for teaching what is already known, but for continued re-examination and continued additions to his own knowledge.

And for complete study we must have large museums showing the coarse naked-eye characters of diseased structures. I am sure no one will think me likely to depreciate the microscope; it has added, and will continue to add, more than can be told to our knowledge; but it has not diminished the value of other evidence; and in pathological anatomy, as in all our sciences, there are many instances in which the naked eye sees facts with more meaning than the microscopic one can.

This is, especially, true in the case of morbid structures resulting from nearly allied diseases, and, therefore, especially true for those of which I wish to urge the study. In morbid structures as in species, the nearer the alliance the less are the differences to be found in minute structures, and the more must we depend for distinctions on the study of visible shapes, and sizes, and constructions. I suppose that we could not with the microscope distinguish the human skeleton from that of the monkey; certainly, we could not distinguish one skull from another in all those varieties of national form which are collected in our Museum. And so it is in many instances of morbid bone formation. I doubt whether microscopic examination could detect characteristic differences in each of this group of specimens. With the naked eye it is sure that this is a syphilitic node on a tibia, and this a growth beneath a chronic ulcer over the shin, and this a pedicled exostosis, or ossified cartilaginous outgrowth from the shaft of a long bone, and this an instance of osteo-arthritis, and this a portion of the skeleton of an osteo-sarcoma or osteoid cancer. Moreover, it is to be observed that in morbid structures, as in those that are natural, in the same proportion as the aggregated elements of embryonic structures acquire their complete and final form, so do the bodies composed of them acquire distinctive shapes and methods of construction plain to the unaided senses. The ova of many species may seem alike both in outer shape and in their component elemental structures. But in proportion as these structures are differentiated, and developed into their higher and abiding forms, as into nerve fibre, and muscular fibre, and the rest, so the larger characters of even the nearly allied species—the characters of shape, and size, and appropriate construction of the whole body, and of each part of it—become more and more different; and these constitute the real distinctive characters of each species.

And so it is in morbid products. The acquirement of distinctive shapes and methods of construction coincides with the development of elemental forms. For example, in these sarcomata are only the lowest elemental structures, round cells, spindle cells, and shapeless plasma; and the masses thus combined are shapeless, featureless, decisive by negation. But in these fatty and fibrous and cartilaginous and bony tumours, in which the elemental structures have advanced to higher forms, the masses which they severally compose are almost as characteristic and distinct in visible shape and construction as are the several normal organs of the body.

In every case, then, both the largest and the smallest characters should be studied. The naked eye can discern one set of facts, the aided eye another; both are essential to complete knowledge; no one should be content with either, for neither is alone sufficient. So we must have large specimens as well as small ones, and certainly large ones for the study of the gradual variations of diseases as they deviate from typical forms, and become variously mingled.

And now, as I come near to my term of time, let me, as is customary in certain other places, conclude with an earnest appeal to your liberality. We want liberal contributions, not of money, but of specimens to our Museum. We want specimens of many kinds; of course we want whatever is rare, but not these alone; we want some to complete our series of typical specimens; and, to keep to the chief subject of my lecture, we want the opportunity of choosing among many of what are called "bad specimens." We are all too ready to collect what are called "good specimens" as being well-marked instances of the standard characters of diseases, and to put aside as "bad" those which deviate from those characters, just as, clinically, we speak of good and bad cases of a disease. Of course, good specimens, typical specimens, must be at hand for the teaching of pupils who have to study illustrations of the accepted descriptions of diseases; but it is among bad specimens, even as it may be among exceptional cases, that those who are past pupilage, though they have not ceased to be students, may study the variations of disease. I ask the more boldly for contributions to the pathological collection because of its present satisfactory condition and the activity of work in it. You will soon see it in the repaired and renovated building. Looking at the number and value of the specimens and the wide range of pathology which they illustrate; looking at the interest of the history of our science which is told in many of them; at the memorials of Hunter and Matthew Baillie, of Astley Cooper, Liston, Howship, Lawrence, Hammick, Fergusson, Hilton, and many more; looking forward to what the Museum will tell of the researches and skill of those who are still with us, and among whose names I venture to feel sure, Mr. President, that none will take precedence of your own, while men study the specimens with which your skill and just audacity in operating have enriched the series of diseases of the ovaries and uterus: looking at all these things, and then at the perfect order and condition in which the specimens are preserved, I feel that the collection is one which all we members of the College may feel personal pride in calling our own, and should feel it a personal duty to enrich. And its utility is being constantly more appreciated. I have been often made happy by the contrast which I have seen while working at the new edition of the catalogue. While I was writing the last edition, between thirty and forty years ago, scarcely a student ever entered the Museum. Hour after hour I sat alone; I seemed to be working for no one but myself, or for nothing but the general propriety that a museum ought to have a catalogue, though no one might ever care to study with it. Now, and for some years past, a day rarely passes without many pupils and others being at work in every part of the Museum.

All this is good; but much more is to be done. Our Museum should be, even more than it is, the centre in which all pathologists may find help in searches after that which is not yet known; in such searches, for example, as may lead to a complete knowledge of the variations of diseases. For many years, even from the beginning, the anatomical and physiological departments of our Museum have been not only a noble collection of specimens, but, through the renown and learning of its conservators, a great centre of teaching. Scientific men, especially comparative anatomists and anthropologists, have known that here, if anywhere, they could find whatever help a museum and a master in those sciences could give. A fortnight ago the President of the Royal Society, presenting one of the royal medals to Professor Flower, said:—"Professor Flower has been for more than twenty years conservator of the Museum of the Royal College of Surgeons; and it is very largely due to his incessant and well-directed labours that the Museum at present contains the most complete, the best ordered, and the most accessible collection of materials for the study of vertebrate structures extant."

It is not for me to praise the pathological collection with similar words. But great as may have been its utility hitherto, we may be confident that it will henceforth be more useful than ever. In the vast increase of the biological sciences it became impossible that one man should be nearly complete in the knowledge of both natural and pathological anatomy. I say impossible. I believe there is not such a one living; if there could have been one it might have been Mr. Flower. Now, we may hope that labours as "incessant and well-directed" as his will be devoted especially to the pathological collection.

It is known to many of you that Sir Erasmus Wilson, in his usual liberality, gave the College £5000, of which the interest should be spent in the promotion of pathology: and he agreed that this would best be done by helping to the appointment of a curator of the pathological department of the Museum; and we have an admirable one. Mr. Eve is a worthy colleague and helper of Mr. Flower—excellent like him not only in knowledge, but in that which is even more rare—the love of museums, and of all that belongs to their maintenance and illustration, even to the making of

catalogues. In all these good qualities he has distinguished himself at St. Bartholomew's. I believe that we may rely on him for making so good use of the Museum, and of all that can be brought to it, that the College shall be the chief centre for the study of pathology, even to the furthest point at which it can be studied in specimens of diseased structure. I beg your help that he may be so; and if I shall have helped to-day to this good result, the first Bradshawe Lecture in our College will have well fulfilled the purpose of its founder.

ORIGINAL COMMUNICATIONS.

QUERIES IN MEDICAL ETHICS.(a)

By WILLIAM FRASER, M.A., M.R.C.S. Eng.

(*Continued from page 714.*)

Q.—Why are classical and foreign languages made use of in medicine? and if their employment is justifiable and necessary, to what extent ought it to be carried?

A.—The literature of medicine, up till recent times, has been mainly preserved in the medium almost universally adopted by learned men—the language of the great conquerors of the world. Its nomenclature, too, more especially in nosology, anatomy, and materia medica, has been mainly constructed in that language; and to this day it can find no more exact and intelligible means of scientific expression than the forcible and nervous Latin, and the cognate and supple, self-adaptive and sweet-sounding Greek. Such being the fact, it is neither likely nor desirable that modern nations, as the English, the Germans, or the French, should in their cultivation of the medical sciences discontinue the use of these languages. It may be said, indeed, that they constitute the mystic key which affords access to the treasures of past and present times, and the use of which cannot be dispensed with, even by men of talent and of genius, in the domain of medicine, any more than in other sciences and professions, although it is quite true, at the same time, that success in medical practice and the accumulation of money may be attained to a large extent without the possession of this key, or indeed of any other high qualifications, either natural or acquired.

For the public convenience and advantage, however, these treasures, like the bullion and specie laid up in the Bank of England, can be, and in fact generally are, by means of the press, represented and put into circulation and use in the form of notes and of books in the vernacular languages. But, notwithstanding this resource, no medical man, without such a knowledge of other languages as will enable him to understand and to make use of the nomenclature—the tools, as it were—by which science is built up and held together, can hope to reach the higher ranks of his profession.

But, great as is the use of these languages in medicine, their employment may be carried to an undue and injurious extent, so as to obscure and confuse the meaning of words, instead of rendering them more intelligible and subservient to the advancement of science. Whenever native and English words can with equal force and precision express the meaning to be conveyed (except perhaps in nomenclature), they ought to be preferred both in writing and in speaking; and the unnecessary use of foreign words and phrases is rather a sign of affectation, and, instead of showing an abundance, often only conceals a poverty of information.

Q.—Is it right that medical men should adhere to the old custom of writing their prescriptions in the Latin language? and if so, on what grounds?

A.—Yes; the prescription, although a document purchased by, and belonging to, the patient, is in itself a message of direction to a qualified pharmacist, and is expressed in the conventional and classical language mutually understood by prescriber and dispenser. And whatever verbal or written instructions the medical attendant may give with regard to the patient, these will not necessarily, nor even probably, include an intimation of the names of the drugs he is to take, as that might in some cases do harm instead of good.

Q.—In what relation does the sick-nurse stand to the medical attendant in the treatment of a case?

A.—As kind, careful, and skilful nursing is often a most essential, and indeed indispensable, part of the treatment of a case, the nurse, whether professional or not, when approved by, and acting under the orders of, the medical attendant, must, so far, be held as his lieutenant, and should be permitted, at her discretion, to carry out his views and directions in the treatment. But his instructions should be plain and intelligible, and in some cases even occasionally given in writing, and they should bear upon whatever might affect the health and recovery of the patient. His diet and recreation, and the heating, lighting, and ventilation of the sick-chamber should be taken cognisance of, as well as sometimes things which to the inexperienced might seem unimportant or irrelevant, but on which important issues may often depend.

Q.—To what extent has the medical attendant the right to interfere in the selection or change of the nurse or other immediate attendants on his patient?

A.—The medical attendant being responsible for the treatment, upon which it may be said the life or death of his patient depends, should claim, and should be allowed, the privilege of making what arrangements he may think necessary in regard to the sick-room and its inmates. He should also, if possible, be ready at any time to recommend or to provide a nurse suitable and competent for any case that may require such assistance.

Q.—How can a medical man be able on an emergency to arrange as to the proper nursing and personal attendance on his patients?

A.—He ought always to be provided with, and to have in his pocket-book, a list containing the addresses of nurses, with whose character and capabilities he is acquainted; and if this should fail to meet the requirement, he should apply, or recommend his clients to apply, to some hospital, or training or other institution, where duly qualified nurses can in general be readily obtained.

Q.—To what extent is it right or necessary for medical men, in their practice, to supply the medicines or appliances required for their patients?

A.—All well-educated medical men should be sufficiently acquainted with the materia medica and pharmacy to be able, on an emergency, to give their personal services in this respect, and they ought to keep in their consulting-rooms such articles as might be required for imperative and immediate use, as well as such an assortment of tests as are necessary for their arriving at a correct diagnosis of cases. The numerous concentrated medicinal preparations, particularly those in the form of pills, which modern pharmacy has introduced into practice, can, from their extreme portability, be taken advantage of by the practitioner, when the saving of time counts as a matter of great importance; and practitioners who have to travel long distances in the country would be only doing their duty to their patients and themselves by carrying with them a suitable supply of the character referred to. Country practitioners, where there are no reliable druggists within reach, must necessarily keep and dispense their own medicines; and many other general practitioners—physician and surgeon apothecaries, comprising probably the main bulk of the profession—find in this system advantages which must doubtless outweigh any objections that can be urged against it.

Q.—What objections may be urged against this mode of practice, or rather against the abuses of it?

A.—Although class distinctions are gradually softening down through the rise in the standard of professional education, yet they are in medicine as in other professions unavoidable and advantageous; and the general practitioner and apothecary, though occupying an equally honourable and independent position, must still be held as of inferior rank to the "pure" members of the profession. But when the office, dispensary, shop, or whatever may be its description, belonging to a general practitioner, comes to be employed as an open and public drug shop, and used as a means of attracting and securing straggling and unwary patients, its proprietor becomes justly looked upon as acting dishonourably towards his brethren, as well as towards the regular pharmacists, and he must be prepared for the natural outcome of the feeling thus produced; he must make up his mind to pocket, along with the gains so acquired, the scoff and avoidance which justly attach to them.

(a) Read with approval) at the Medico Chirurgical Society, Aberdeen, November 2, 1882.

Q.—On whose part, in the attendance on a case, does it rest to decide as to the propriety of having a consultation in regard to the diagnosis or the treatment?

A.—The medical attendant ought to be the best judge in the matter, and he should not hesitate to express his opinion and wishes, when the advantage of his patient, or justice to his own opinion and treatment, seem to render such a course necessary. The patient himself, of course, has the power to change or to discontinue his medical attendant, or to call in whatever consultant or additional attendants he may choose. Those friends whose relationship or connexion may warrant their interference may, with the patient's consent, if he is in a condition to give it, demand a consultation; and in any case the doctor in attendance, unless he has very good reason for non-compliance, should cheerfully acquiesce in the proposal. Indeed, where circumstances admit of them, consultations should be encouraged by medical men, both for their patients' benefit and also for their own; as their comfort, safety, success, and instruction will thereby be promoted.

Q.—Under what circumstances may a medical man decline to meet with another practitioner in consultation?

A.—It is his duty to decline to meet in consultation with one who is not legally qualified; or who is notoriously addicted to what the profession consider as quackery, or to other disreputable or to illegal modes of practice; or who avowedly practises a mode of treatment which the great body of the profession believe, and have pronounced to be, founded on mistaken ideas in certain departments of medicine.

Q.—Are homœopathic practitioners to be classed under this last description?

A.—Yes; for although medicine does not impose a special and fixed creed upon its followers, the therapeutic views of Hahnemann and his disciples—their infinitesimal doses, for instance—are so essentially opposed to, and in fact incompatible with, those of the regular profession that the two parties could not coincide or co-operate together *in medicinal treatment*, however much they might harmonise, or condescend to learn from each other, or even consult, in other respects.

(To be continued.

STATISTICS OF OPERATIONS ON THE EYE IN THE UNITED STATES.—The following interesting statistics are given by Dr. Little in a recent article. Of 107,383 eye cases in the ophthalmic and general hospitals in the leading cities, 19,037 required surgical procedures, of which 862 were enucleations for some of the many forms of objective traumatism, principally on account of the dread of a presence of sympathetic irritation or ophthalmia of the other eye. Some were for intra-ocular conditions, and a few for cosmetic purposes. Thus 17·7 per cent. of ophthalmic work is operative, and 4·5 per cent. is enucleative. This percentage of the removal of the eyeball should be higher than the statistics derived from the public clinics show, as this class of cases is more apt to seek private advice. The importation of artificial eyes is about 10,000 annually, and recently the manufacturing of them has become a home industry.—*Phil. Med. Reporter*, November 4.

TRANSPOSITION OF VISCERA.—An example of this was shown at the College of Physicians of Philadelphia in the person of a man who had died, aged twenty-one. The autopsy showed the heart on the right side of the thorax, but otherwise normal, the right being the pulmonary, and the left the systemic side. The arch of the aorta crossed the right bronchus, and the vessel then descended on the right side of the spine. The innominate artery was on the left, giving off the left common carotid and left subclavian, while the right carotid and subclavian came directly from the right portion of the arch. The right lung was the smaller and had two lobes, and the left had three. The liver occupied the left hypochondriac and in part the epigastric regions, and its lobes, as well as the gall-bladder, were similarly changed. The stomach was chiefly in the right hypochondrium, the pylorus extending towards the middle of the abdomen. The spleen was on the right, and attached to the great curvature of the stomach. The cæcum was in the left iliac fossa; the transverse colon ran from left to right, and descended to the sigmoid flexure, which was upon the right.—*Boston Med. Journal*, October 26.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

ABSCESS IN SHAFT OF RADIUS—INCISION—SCRAPING—RECOVERY WITHOUT DEFORMITY.

(Under the care of Mr. R. J. GODLEE.)

A. B., a boy, aged seven years, was admitted on February 1, 1882.

Previous History.—He was the fifth of eight children, all healthy—no deaths; two miscarriages, one following a fall. No history of syphilis in other members of the family, nor signs of it in the patient; no family history of tumours. Had had scarlet fever, measles, and whooping-cough. Subject to bronchitis in the winter time; but continued fairly well until fourteen months ago, when, playing with some other boys, they fell on him (the arms were said to be under him). He complained of his wrist afterwards, and could not use it. There was no wound. Next day it began to swell and "look shiny." He was now taken to the London Hospital, and an attack of "erysipelas," which lasted five weeks, seems to have supervened. When discharged from the hospital his arm was still swollen and slightly tender. Splints were never employed; hence it may be presumed that there was no fracture. He went to school for awhile, and was able to use his arm. No great change was visible in the arm until five or six weeks before his admission, when it was noticed that the swelling began to increase in size. There had been some pain since the accident, especially at night, and it was said to be getting worse. Hot fomentations had been applied.

Present Condition.—On admission (February 1, 1882) he was noted as a bright, intelligent, healthy-looking boy, though somewhat thin. There were no external indications of either syphilis or struma, though carefully searched for, unless one or two glands in the axilla and neck, on the diseased side, could be taken as evidence. There was no appearance of rickets. The lower third of the left radius was found to be thickened into an ovoid swelling of the size of a small hen's-egg. The swelling was more prominent on the inner side; it was and painless, its surface smooth, and the skin over it natural. The radial artery ran over its anterior surface; the wrist-joint and the ulna were apparently unaffected; the joint was free.

February 3.—A small blister was applied, and pot. iodidi was ordered three times a day.

5th.—Blister repeated.

13th.—According to the measurements, the swelling was found to have increased.

14th.—Another blister applied, and dose of iodide increased from three to four grains three times a day.

17th.—Swelling still increasing in size; skin becoming red and œdematous.

20th.—Fluctuation was evident; and accordingly, on the 21st, patient was chloroformed, and an incision one inch and a half long was made into the swelling on its dorsal aspect, through which a small quantity of thick pus was evacuated. The radius was found denuded of its periosteum, but no opening into the mass was detected. With a small gouge, a piece of bone was removed, which opened a large, thin-walled cavity in the interior of the bone, into which the last two joints of the little finger could be passed. The interior was rough; it contained pus, but no sequestrum. It was scraped out with a Volkmann's sharp spoon. A drainage-tube was inserted, and the usual antiseptic dressings were applied.

The temperature, after the first day, never rose above normal. The course of the healing was thoroughly aseptic; and the boy was discharged on March 17. At this time the swelling was considerably less than on his admission. The drainage and antiseptic dressings were continued, the boy attending as an out-patient.

Ultimately the cavity completely closed, and in the course of a few weeks the bone regained its normal appearance and size.

Remarks (by Mr. Godlee).—When first seen the diagnosis

was far from clear, as the swelling had very much the appearance of a tumour affecting the bone, the small amount of pain and the very gradual development appearing to point in that direction. The condition of things actually found is decidedly uncommon. No doubt the abscess in the interior of the bone had been in existence for a considerable time; and the manner in which it had caused the bone to dilate, and the size of the cavity thus formed, were certainly remarkable. Possibly some small sequestrum had been originally present, but, if so, it was so minute that it escaped detection. No communication between the central and the superficial abscesses was discovered; it is, however, possible that one may have existed at the lower part; or, on the other hand, the superficial abscess may have developed sympathetically with the deeper inflammation. The rapidity with which the swelling increased after the boy's admission to the hospital suggests the possibility of the blistering having actually accelerated the process of suppuration. Lastly, it may be noticed as a peculiar feature of the case, that, after the evacuation of the pus, the bone, which had so long been the subject of such a marked enlargement, should have in a very short time regained its natural size.

GLASGOW OPHTHALMIC INSTITUTION.

Dr. J. R. WOLFE'S CLINIQUE.

(Reported by Dr. A. T. Thomson.)

In drawing attention to a group of cases of syphilitic origin which were then under treatment, Dr. Wolfe said he wished those present to bear in mind the great ramifications of the syphilitic virus in the ocular tissues. All were familiar with tertiary syphilis, which manifests itself generally in the form of kerato-cyclitis and recurrent irido-cyclitis—an inheritance from parents and grandparents. In connexion with this last point he mentioned a case which he had treated with Dr. Meiklem, of this city. The patient was a girl, fourteen years of age, whose grandmother had suffered from an aggravated form of tertiary syphilis, which destroyed one of her eyes, the cartilage of the nose, etc. The mother of the young lady was apparently healthy, but suffered occasionally from an eruption on her body, copper-coloured in appearance. Dr. Wolfe has seen several such cases, in which constitutional syphilis had almost skipped over, or but slightly appeared in, one generation, manifesting itself in the third generation in an aggravated form. The tissue in which secondary syphilis had its seat of election was the iris, and when there was a nodule on it there need be no hesitation in attributing it to syphilis; but in the following group of cases the iris had been left intact, and the deeper tissues very seriously compromised.

Case 1.—Choroiditis.

J. K., aged twenty-two years, unmarried, machinist, applied for advice at the Ophthalmic Institution on August 17, 1882, complaining of dimness of vision of the left eye. Until July of the present year she had perfectly good vision, when she first experienced pain in the eye, followed by dimness, which has been steadily getting worse.

History.—About fourteen months ago she suffered from vaginal discharge with pain on micturition, but did not notice any sore about the parts. Has had sore throat. Twelve months ago gave birth to a healthy child, and since then her hair has been falling out. At no time has she observed any particular eruption about her body; she still suffers from vaginal discharge.

Vision.—Right eye normal; left eye, distant vision reduced to $\frac{1}{2}$, near point reads 20 J. Ophthalmoscope revealed elevated choroidal patches, both at the periphery and also near the disc; there were also two hæmorrhagic spots within the black patches; the disc itself was only slightly clouded.

Treatment.—Mercurial inunction externally to the armpits, and blue pill and quinine internally. After continuing the above treatment, iodide of potassium was substituted.

October 19.—She can now read 6 J. Fundus has cleared up considerably; the outlines of the disc are normal, and the choroidal patches are becoming less elevated.

Case 2.—Choroido-Retinitis.

J. K., aged thirty-five years, cashier in a merchant's office, applied for advice on August 17, 1882, complaining of dimness of vision in his left eye, which he thought was overstrained by close application to painting, to which he devotes his leisure hours.

Vision.—Right, normal; left, distant vision scarcely $\frac{1}{10}$, barely reads 20 J. when the right eye is closed. Ophthalmoscope reveals choroido-retinitis and hyperæmia of the disc with haziness of its outlines.

History.—A year ago he suffered from a chancre, for which he was treated by a homœopath, and some time after he suffered from skin eruption, consisting of copper-coloured patches, which are still visible on the chest.

Treatment.—Blue-pill and quinine, and mercurial inunction and warm baths. The above treatment was continued for a month, and then iodide of potassium was substituted.

October 21.—Patient has steadily improved; the syphilitic eruption has disappeared. With the ophthalmoscope it is noticed that the hyperæmia has disappeared from the disc; but the choroidal patches are still present, although not to the same extent as when the fundus was first examined: and there are also scotoma corresponding to the site of the choroidal nodules.

Case 3.—Staungspapilla.

W. McE., aged twenty-two years, colour printer, applied for advice, August 14, 1882, for dimness of vision of both eyes, but worse in the left. About six months ago he first experienced pain in his head, which was not confined to any particular spot, but most intense at the back part; and about the same time he noticed that his vision became dim, which he attributed to the pain; objects appeared slantingly; and now the dimness has increased to such an extent that he can hardly take his bearings, and, when going along the streets, he has the greatest difficulty in avoiding collisions with other foot-passengers, which, indeed, often occur; in fact, he feels utterly helpless, especially at nights.

History.—About twelve months ago he suffered from chancre, for which he took medicine and was cured; has never noticed any eruption on his body, and at no time has he suffered from throat affection. Examination reveals scar of chancre, and several well-marked circular ulcers are noticed on the left side of the tongue.

Vision.—Right eye, vision reduced to $\frac{2}{3}$, reads 16 J.; left eye, vision reduced to $\frac{1}{10}$, barely reads 20 J. Ophthalmoscope reveals staungspapilla of both eyes, but more advanced in the left.

Treatment.—Mercurial course, to be followed with iodide of potassium.

October 15.—The above treatment caused rapid improvement. With left eye can read 14 J., with right 8 J.

19th.—When last seen he was suffering from an attack of broncho-pneumonia, for which he was sent to the General Hospital. Fundus clearing up rapidly, and vision daily improving correspondingly.

Case 4.—Episcleral Swelling.

J. F., aged forty years, steamship engineer, applied for advice on October 29, 1882, suffering from extensive syphilitic psoriasis of both the upper and lower extremities, and also serous iritis of the left eye, and a large episcleral swelling at the junction of the cornea and sclerotic at its inner quadrant.

History.—He contracted a chancre in India about two years ago, for which he was not properly treated. He afterwards suffered from skin eruption of a copper-coloured appearance, which has now developed into patches of psoriasis.

Treatment.—He was at once put on a mercurial plano f treatment with instillation of solution of atropine into the eye, and warm fomentations applied frequently during the day.

December 1.—The above method has resulted in complete recovery. Vision of the eye is normal; there is only a blue mark left at the site of the episcleral swelling. The skin affection has also disappeared, leaving behind bright red cicatrices.

THE DATES OF THE FOUNDATION OF GERMAN UNIVERSITIES.—The *Chicago Med. Journal* states that the University of Prague was founded in 1348, Vienna in 1365, Heidelberg in 1386, Leipzig in 1409, Freiburg in 1459, Greifswald in 1456, Basel in 1460, Munich in 1472, Jena in 1568, Würzburg in 1582, Gottingen in 1727, Berlin in 1810, and Zurich in 1833.

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Medical Times and Gazette.

SATURDAY, DECEMBER 16, 1882.

THE BRADSHAWE LECTURE.

We doubt whether so great an impetus has ever been given to the study of Pathology on any single occasion by one individual person as was afforded it by the address of Sir James Paget at the Royal College of Surgeons on Wednesday last. The subject he chose—"Some Rare and New Diseases"—is one that, very probably, would have proved fertile even in other hands than his; but no one, we are codfident, could have handled it in so suggestive a manner as he did, or based upon it arguments so cogent in favour of pathological museums. Sir James Paget commenced by pointing out the difference between rare cases and rare diseases. Of the former he very justly remarked, "Not one of them is without a meaning, not one but might be the beginning of excellent knowledge, if only we could answer this question—Why is this rare? or, being rare, why did it happen?" In future, when in the presence of such a case, we must not be content with remarking that it is curious or interesting: we must endeavour to unravel the cause of its singular features, and, failing to discover this, we must simply record the facts in the hope that some investigator in the future may be able to find their true significance.

Of rare diseases, Sir James Paget selected two to illustrate his subject, on the ground, firstly, that they were lately new diseases, and have become more frequent; and secondly, that they are mainly due to morbid conditions changing and combining in transmission from parents to offspring. The diseases thus chosen were osteitis deformans and Charcot's joint-disease. It would be difficult indeed to find two subjects equally apt for the purpose. In both diseases the illness is prolonged; the sufferings of the patient are great; he would be certain, sooner or later, to seek medical advice; and the signs produced by them are so manifest that it is impossible they could have escaped the observation of the host of keen practitioners during the first half of the present century. But, even granting that these diseases might have existed without being recognised during life, we cannot admit that such very obvious and striking lesions could have been overlooked by those pathologists who have enriched our museums with such countless specimens of bone disease. Sir James Paget tells us that in none of the museums he has examined is there a specimen of either disease, nor is any mention of them made in any catalogue of any of the museums in Europe. The conclusion, then, is irresistible, that these diseases are not only rare, but really new. The causes of this we shall inquire into immediately, but there is another word to be said about new diseases first. Gouty phlebitis was an admirable instance of what we may call a not very uncommon expression of incomplete gout, and yet fifty years ago it was almost unknown to Sir Henry Halford and others of his time, who had immense experience of gout in its most typical form. We must admit that this affection was then a new and very rare one. We think that a parallel case may be found in those cranial bosses which have only become known to us through the labours of M. Parrot, and of which ten years ago no description had ever been given in this country. It seems very difficult to believe that had they been, even fifteen years ago, as common and as well marked as they are at present, they could have escaped the observation of those very men who now find no difficulty in recognising them.

But we must pass to the consideration of the causes of these new diseases. "It will be better for us," says Sir James Paget, "if we study in pathology as in natural history, varieties as much as species, changes as well as more stable forms. Types of disease there are, standard forms, and the tenacity with which they are maintained—some even from prehistoric times—in all the varieties of the conditions of our lives is one of the most remarkable facts in all pathology. But they are not unalterable. Types vary in diseases as in species; even in the diseases which depend least upon external conditions, and most on the qualities which are transmitted by inheritance." We are all prepared to admit that the child never presents an exact likeness of one parent, and we must admit, too, the variations in disease that may be produced by the multiform combinations of inherited tendencies. What do we know, for instance, about the influence of syphilis on the third generation? There must be some effect; and if that effect be combined with an equal trace of gout or of cancer, it is surely the most natural thing in the world that a disease should be produced not perfectly typical of gout, cancer, or inherited syphilis. This view of the effect of convergence of morbid tendencies in hereditary transmission opens up a wide field of investigation which must be pursued after the model of Darwin, viz., by a careful collection of facts and a complete study of each individual case. We cannot better close these remarks on the earnest appeal for a more extended study of pathology, made by one who has been for fifty years the foremost student of this vast and all-important subject in this country, than by quoting his own words of advice—"We should very carefully study all cases which are not according to an admitted type. We should study all exceptions to rules, never thinking of them as unmeaning or accidental. Especially, we should never use in its popular, but wrong, translation the expression '*Exceptio probat regulam*,' as if an exception to a rule could be evidence that the rule is right. If we use it, let this be in its real meaning; translating it, as surgeons should, that an exception probes a rule, tests it, searches it—as the Bible says we should 'prove all things'—to its very boundary. In this true meaning the words may be an excellent motto for the study of all diseases that deviate from types."

THE CLASSIFICATION OF DISEASES OF WOUNDS.

THERE is no matter of greater importance to the surgeon than a knowledge of the diseases accidental to wounds; for this reason any contribution either to the literature or other departments of the question must always be welcome. In our issue of the 2nd inst. we gave a short annotation on the statistics of such accidental diseases as they have occurred during the past five years at Billroth's famous clinic, and we regret that we have not the space to reproduce more of the details of that useful piece of work. Dr. von Bergmann has just commenced his career at Berlin by delivering an address, at the commencement of the session of the University Surgical Clinic, on the classification of the affections to which wounds are liable, and we purpose now to place before the profession a sketch of the various features of this introductory lecture (*Berliner Klinische Wochenschrift*, Nos. 45 and 46.)

At the outset the new Professor alluded in terms of high praise to the useful and important work done by Graefe, Dieffenbach, and Langenbeck in the cause more especially of German surgery, which could hardly be said to have begun its prosperous existence more than fifty years ago. It was not till the end of the last century that the study of wounds in a properly practical manner was commenced; prior to that only theoretical, or rather general, philosophical principles were propounded. The famous physiologist and poet, Albrecht von Haller, in 1752 had studied surgery in Gottingen without ever having treated a surgical affection or put his hand to the knife. It was ten years after the foundation of the Berlin high school before a lasting place was found for the surgical clinic headed by von Graefe, and even then most of the instruction, like that by Siebold in Wurzburg, was given on the out-patients. Indeed, later on, Dieffenbach operated and imparted knowledge principally on the out-patients. The combined surgical and ophthalmic departments which Langenbeck undertook appropriated an old house—formerly a factory—where in-patients to the number of twenty only were received, and out-patients treated. The enlargement, improvement, and development into the present state of affairs are solely the work of Langenbeck, who, when he began, numbered scarcely 500 out-patients in his practice, whilst during the last years the enumeration reached the startling figure of 24,000. Then a new building was erected, devoted exclusively to surgery, special regard being had to the claims of hospital hygiene, as well as to the wants long felt for giving instruction and for promoting research. Langenbeck has set his seal on two distinct departments of surgery: he created conservative surgery, and founded new operations for the surgical treatment of diseases formerly left solely to medical care. The Professor next pointed out the grand distinction to be drawn between an operation and the subsequent course of the wound, and quoted the pious ejaculation of Frère Jacques, "L'opération est achevée—Dieu vous guérisse!" Now, however, it is gratifying to see what advances have been made in the after-treatment of wounds, so that the former state of things has almost entirely passed away, owing to the increase in our knowledge of the nature and essence of diseases which attack wounds—acquirements garnered not from clinical investigations alone, but also, and chiefly, from the field of experimental pathology. Starting on the subject proper of his discourse, Professor Bergmann said that no organ is absolutely intolerant of a traumatism; in this regard we know of no Achilles' heel. Further, every organ can, when injured, lead to such changes that death may ensue without the organ being necessarily much damaged. This fatal result may be brought about in two sorts of ways, either more or less directly, or through the intervention of other agencies, *e.g.*, infection. Two classes may thus be marked out. The first would comprise such affections as (1) the entry of air into veins; (2) fat embolism from fractures of bones; (3) the accumulation of blood extravasation within the wounded tissues; and (4) certain cases of venous thrombosis and embolism. To the second group belong (1) circumscribed and diffuse phlegmon, with lymphangitis; (2) hospital gangrene and diphtheria of wounds; (3) erysipelas; (4) pyæmia; (5) septicæmia; (6) traumatic tetanus. The diseases of the second class form to some extent a natural group—they all have something in common; they are characterised by a regularity and uniformity in their development, progress, and ending. These characters are conspicuous by their absence in the members of the first group: these maladies have not a typical course; they are wanting in specificity. Air may enter a cervical or axillary vein in such quantities as completely and quickly to cause death, the pulmonary circulation being blocked, and the brain so deprived of blood; or only a few bubbles of gas may be sucked in, leading to partial obstruction of the lesser circulation, this going on to œdema of the lungs, and so to a fatal issue, as happens in many cases of fat-embolism, though fat emboli may only give rise to quite transient symptoms. The diseases of the second division are, moreover, all attended with pyrexia; the fever-curve of each is characteristic; the illness in each is further marked by typhoid symptoms and a yellow discolouration of the skin, with gastro-intestinal disturbance and rapidly developing weakness of the heart. Other known features of the diseases of this group were pointed out. Dr. von Bergmann then related a case in which the hand had been wounded and bruised, where sloughing and inflammation followed, to illustrate the further course of his lecture, in which the gradual rise and development of our knowledge of infectious diseases was pictured in a very apt manner. In early times it was taught that every action was followed by corresponding reaction. The consequences of a wound were thought to be due simply to the size, quantity, and quality of the injury itself. This view gradually waned before the light of observation. Billroth made researches with the thermometer, and showed that a large wound might be unattended with fever, whilst a small one might yield the very worst pyrexia. Then it was supposed that the occurrence of gangrene or the presence of decomposing blood in the depth of the wound had much more to do with the setting up of inflammation and fever than the mere size and other characters of the traumatism. According to that theory, inflammation and traumatic fever were due to the process of decomposition. Later, it was discovered that pus and serum from the inflamed part could cause similar inflammations in animals when injected under their skin. So, by gradual stages, the Professor led up to the modern doctrines of infection by organised germs and bacteria. The prophylactic treatment suggested by this information, which was so largely the outcome of experimental inquiry, was next entered upon, Listerism receiving its proper mention and place; and with a few general remarks the lecture closed.

It is always a difficult thing to choose a fitting subject for an introductory lecture, but none more appropriate to the occasion could have been selected than the one here outlined. It may be said that nothing new has been told us, but how frequently must that be remarked of other occasions! Our knowledge depends not so much on what we know as how we know it, and a healthy endeavour to put old songs to new tunes is always commendable. We might join issue with some of the opinions and teachings contained in Bergmann's address, as the readers of our article on Bacillus of Tubercle in our number for November 18 might conjecture. Whilst feeling thankful for the

advances made in bacterial pathology, we cannot help maintaining that there is a margin wherein there is still room for doubts and fears.

FOG.

THE experience of last Sunday, and to a less degree of Monday also, will have been enough to show that, however strongly public feeling may have been aroused during the last few years on the subject of the abolition of fogs, but little practical benefit has, as yet, resulted. We noted, however—and one must be thankful for small mercies—that this last fog was not so irritating to either the conjunctiva or the mucous membrane of the respiratory tract as many of its predecessors, nor had it the peculiarly unpleasant sulphurous taste which has been so characteristic of the typical London fog. Having said that, there is nothing else to be said in its favour, for it lasted two whole days and nights, and returned, though in a mitigated form, for a third night.

We need not remind our readers of the various ills which a fog brings in its train—they have been often enough enumerated, and, indeed, we never heard but one person say that a fog did any good; he was the subject of spasmodic asthma, and he assured us that he was always better during a fog. But it is not only directly that these fogs do so much mischief, for the endeavour to keep our churches sufficiently lighted and warmed on Sunday last resulted, in some instances at any rate, in the formation of such a headache-producing atmosphere, that the fog was, comparatively speaking, preferable.

It is very generally assumed that fogs are of comparatively modern growth, and that they tend to get worse in proportion to the increase in size of our cities. They may become more frequent—though on that point we have no positive evidence,—but that our ancestors were occasionally visited by dense fogs is evident from the following extract from "Evelyn's Diary":—"December 15, 1671.—It was the thickest and darkest fog on the Thames that was ever known in the memory of man, and I happened to be in the very midst of it." And again: "November 15, 1699.—There happened this week so thick a mist and fog that people lost their way in the streets. . . . It began about four in the afternoon, and was gone by eight, without any wind to disperse it." Because, however, we find that fogs were not unknown in the metropolis two centuries ago, it is no reason why we should not endeavour to get rid of them; and the Smoke-Abatement Committee have our very best wishes for their success. We are not sanguine enough to think, however, that the abolition of smoke in London will cause fogs to cease to exist altogether: that it will deprive them of their most disagreeable and injurious properties we earnestly hope and believe; but nothing short of maintaining a perfectly uniform temperature all the year round, day and night, could permanently prevent fogs.

What, then, are the difficulties which the Smoke-Abatement Committee have to surmount? Practically, they are only two in number—one of pure sentiment, the other of economy. As regards the first, no doubt a blazing fire in a good open fireplace has a most cheering influence, and if the greater part of the heat does go up the chimney, still a good fire in the old sense of the word is associated with Christmastide from time immemorial, and it will take a long time to altogether eradicate the feeling. The real difficulty, however, is, we believe, in the question of expense. Once it can be clearly shown that as much warmth can be got at a less cost and with less damage to health in a way other than by the present coal fire, and the battle will have been virtually won; but at present, unfortunately, the non-bituminous coal costs practically about the same as the ordinary coal, and a gas-fire is rather more expensive.

It is certain that we shall be constantly reminded of this subject in a very unpleasant manner until something is done, and we hope, therefore, that at no very distant date the worst characteristics of London fogs will be banished for ever.

THE WEEK.

TOPICS OF THE DAY.

THE Principal Medical Officer with the troops in Egypt holds to the opinion that the sickness among them is mainly attributable to the natural results of a campaign which, although short, was conducted under circumstances peculiarly trying to the health of the force engaged. He further asserts that no sickness is directly traceable to the inferior quality of the liquor supplied at the local grog-shops; but, seeing that its effect must be, upon the whole, deleterious, he recommends that beer should be supplied at the regimental canteens, even below cost price. The sobriety and general good conduct of the men are universally admitted, and have certainly assisted in keeping down the sick-list. It is moreover stated that the health question is receiving the careful attention of Sir Archibald Alison and his staff, and nothing is omitted which is likely to contribute to the health and comfort of the soldiers. The hospital returns for Cairo, for the seven days from December 6 to 12 inclusive, show a marked improvement. There had been 343 fresh admissions and two deaths.

A meeting in aid of the establishment fund of the Seaside Convalescent Home for Working Men was recently held in Bow Parish Church Schools, and was attended by Mr. Samuel Morley, M.P., president of the institution, and Mr. Hamilton Hoare, the treasurer. A report of the Committee was read, which stated that this movement had been set on foot about eighteen months ago at a meeting of persons connected with the Hospital Saturday Fund. That meeting was followed by a public meeting in Exeter Hall, which was largely attended by the representatives of the workshops of London, and as the result of an appeal for subscriptions to establish a Seaside Convalescent Home for Working Men, a sum of about £320 was collected. It was understood that money subscribed to the Hospital Saturday Fund was not to be touched for this purpose. It had been decided to purchase a large house at St. Margaret's, near Dover, one of the healthiest spots in England. Mr. Morley, M.P., said it gave him great pleasure to be present with Mr. Hoare as a deputation to employers and to working men to forward this object. It was genuine working men's work, and by a happy combination on th part of employers and employed the undertaking would become easy. He understood from the secretary that the house it was proposed to open as a convalescent home at St. Margaret's would give accommodation for thirty, or perhaps even forty, patients at a time; he had no doubt that the opening of this home would be followed by the establishment of others, and that in time every district would be provided with one. Mr. Hoare said the bank with which he was connected had, at his request, undertaken to advance whatever money might be required for the purchase of the site for the home, but the Committee did not wish to have a debt on the institution. By the combination of the insurance and the paying systems—giving subscribers a claim to a place if they required one, and charging something to patients—he hoped to see the institution placed on a sound basis. Resolutions in support of the project were unanimously passed.

A deputation recently waited upon the President of the

Board of Trade, consisting of representatives from the corporations of many towns in the United Kingdom, with the object of obtaining some explanations on the subject of electric lighting Bills. Mr. Littler, Q.C., in explaining the views of the deputation, said the corporations were, in many cases, owners of gasworks, and though they were not blind to the benefits of electric lighting, they did not desire to have companies compulsorily within their boroughs. Not that they did not want the electric light, but they wanted a discretion in the matter. Mr. Chamberlain, in replying, said he thought it was the evident feeling of Parliament that no obstacle should be put in the way of the full development of electricity, and he did not think this would be done if powers were given to the local authorities to keep out possible competitors, without doing anything themselves. The alarm felt by the corporations seemed to him to be exaggerated, having regard to the conditions under which companies were to be allowed to intrude. There was no possibility of a monopoly under the Act. He would, however, further consider the subject in connexion with the views they had placed before him.

A conference of the vestries and local boards in the Holborn Union, comprising Holborn, Clerkenwell, and St. Luke's parishes, has unanimously determined to support the Guardians of the Union in their opposition to the demands of the Local Government Board that they shall build a new workhouse upon a site selected at Upton. Unless this accommodation be provided, the central Board threaten to deprive the ratepayers of the relief of taxation they derive from the common poor fund, exceeding £30,000 per annum. The ultimate cost of the new house is estimated at over £100,000, and this expenditure the ratepayers protest against as being unnecessary. In reply to the view of Mr. Dodson as to the "extremely unsatisfactory condition of Gray's-inn-road workhouse," several speakers urged that, compared with the houses of hundreds of poor ratepayers, this workhouse was a "paradise." Already there had, it was said, been an enormous increase in the poor-rate since Clerkenwell and St. Luke's were added to the Holborn Union. Now it was felt the time had arrived when a determined stand should be made by the ratepayers and their direct representatives against the further building plans provided by the Local Government Board, and the execution of which, it was alleged, they sought to enforce in an arbitrary manner. Finally, a committee was appointed to explain to the central Board the opinions expressed at the conference, and to take all needful steps with a view to successfully opposing the Board's proposals.

The Council of the Hospital Sunday Fund have now issued their tenth annual report, by which it appears that the present year's collection amounted in the aggregate to £34,146, or £2280 more than that of 1881, which had exceeded any previous collection. Awards were made to eighteen general hospitals, fifty special hospitals, fourteen convalescent homes, seven cottage hospitals, fifty-two dispensaries, and four "institutions." Four per cent. of the gross receipts, amounting to £1380, was devoted to the provision of surgical appliances. Of the general hospitals the London Hospital received £2812; St. George's and King's College, £1575 each; Middlesex, £1462; and University College and St. Mary's, £1012 each. The largest donations to special hospitals were: Brompton Consumption, £1068; the City of London for Diseases of the Chest, £787; Sick Children, Great Ormond-street, £731; and the London Fever Hospital, £675. The Metropolitan Convalescent Institution at Walton-on-Thames received £731; All Saints', Eastbourne, £562; and Mrs. Gladstone's Home at Woodford, £225. To the Royal Sea-Bathing Infirmary, Margate, £450 was awarded.

The board of delegates of the Hospital Saturday Fund have recently adopted the report for the present year. This showed that the total receipts were £8872, exceeding those of 1881 by £500, and of 1880 by £2000. Of the entire income of 1882, £6318 was derived from collection-sheets supplied to workshops, etc., and £2160 resulted from the street collection. The latter sum was £144 in excess of the sum realised last year, but the number of stations had been increased from 650 to 900. The report observes that the repeated efforts of the Council to secure the opening of hospitals and dispensaries during the evening, so that workmen patients might not be compelled to lose valuable time in attending them, had not been altogether in vain; it was regretted, however, that such opening was, as yet, far from general. Awards, amounting in the aggregate to £7250, were made to sixty-seven hospitals, thirty-seven dispensaries, six convalescent homes, and two surgical aid societies. No institution applying to participate in the Fund had been disqualified. Some of the largest awards were as follows:—Brompton, £490; London, £374; Middlesex, £283; St. George's, £281; City of London, £236; St. Mary's, £206; Westminster, £186; Great Ormond-street Hospital for Children, £162; North London, £157; King's College, £156; Royal Chest, £154; Charing-cross, £151; Royal London Ophthalmic, £145; Royal Free, £141; University College, £134; Royal National, £130; German, £120; and the Seamen's, £111. The Metropolitan Convalescent Home, £223; Mrs. Gladstone's Home, £86; St. Andrew's, Windsor, £62; London and Dover, £58; London and Brighton, £58; the Surgical Aid Society, £69; and the Provident Surgical Appliance Society, £32.

The sum needed to erect a small model *abattoir* having at length been obtained, a meeting was held on Saturday last in the rooms of the Royal Society for the Prevention of Cruelty to Animals, Jermyn-street, to consider the practical steps to be taken. Dr. B. W. Richardson occupied the chair. On the motion of the Hon. R. Russell, the following resolution was cordially adopted:—"That the sum of £1000 having now been subscribed to establish a small model *abattoir*, the Committee of the Society be empowered to take such practical steps as they may see desirable for the attainment of that object." It was further agreed that the designation of the association should be altered to "The London Model Abattoir Society"; and a resolution was also passed, appealing to the public for liberal support in promotion of the objects which the Society has in view.

It is stated that the Home Office has been in communication with the Surrey Coroners, with the view of increasing the number of coronerships for that county. It is now proposed to appoint two coroners to East Surrey, two to West Surrey, and one to the Mid-Surrey district. Mr. W. Carter has had his choice of divisions, and it is understood has accepted the district comprising Camberwell, Peckham, and Dulwich.

THE DEATH-RATE OF THE PUNJAUB GAOLS

According to the report of Inspector-General A. M. Dallas, the death-rate of the Punjaub gaols in 1881 was 6·47 per cent., against 7·87 in 1880, and 14·01 in 1879. The year was a healthy one, and the reduction in the death-rate appeared to be mainly due to the improved sanitary condition of the population at large. Out of 133 cases, ninety-seven were due to cholera, and out of these, ninety-two occurred in the Lahore Central Gaol in an outbreak of the disease there. The gaols which showed the highest death-rates—were Dharmasala, 25·56; Rawulpindee, 20·12; Lahore Central Gaol, 15·74; and Peshawur, 13·69. Out of the thirty-five gaols of the provinces, eighteen had a death-rate under 2 per cent., and eighteen under 3 per cent.

THE ROYAL COLLEGE OF PHYSICIANS.

We have received official intimation from the College of the arrangements for the lectures during 1883. The Gulstonian lectures will be delivered by Dr. J. Matthews Duncan on February 16, 21, and 23, his subject being "Sterility in Woman"; Dr. J. E. Pollock will deliver the Croonian lectures on "Modern Theories and Treatment of Phthisis"; and Dr. Garrod will give the Lumleian lectures on "Uric Acid in its Relation to Renal Calculi and Gravel." We hope to publish the lectures in full, in accordance with our usual custom.

THE LATE SIR THOMAS WATSON, BART.

After an illness of seven weeks, happily unattended, except for one short period, with suffering or marked discomfort, Sir Thomas Watson sank painlessly and quietly to his rest a little before midnight on Monday last. He had attained the age of ninety years, but still enjoyed good health and the use of all his faculties up to the date of his last illness. He had retired for many years from active practice, and was consequently little known to many of the younger members of the profession, save through the volumes of his Lectures on Medicine—lectures unsurpassed in clearness and elegance of style, and in learning and clinical knowledge conveyed without effort or display. But these lectures, if read with full thought and care, will tell, in a not slight degree, what manner of man Sir Thomas Watson was. Readers may learn from them of the reasons why he won and retained so fully, and for so long, the confidence and trust of the profession and the public, and was regarded by them with such high esteem, and even affectionate regard; and why we all regret so much to lose him, even when he had reached the advanced age of ninety years.

THE PARIS MEDICAL FACULTY.

From the annual report of the Paris Medical Faculty it appears (*Gazette Hebdomadaire*, December 8) that up to October 16, 1882, the number of medical students for the year 1881-82 who had pursued their studies (the medical year 1882-83 only commencing in November) was 4200. To these have to be added 388 students who had taken their first inscription during last November; some others who resumed their studies after seven or eight years' interruption; foreigners to the number of fifty; and thirty-nine women students, being thirteen less than those of the preceding year. During the year 6076 examinations took place, the proportion of rejections having exceeded one-fourth without reaching one-third.

ON PERISPLENIC ABSCESSES.

M. C. Zuber (*Revue de Médecine*, November, 1882, No. 11) has written a thoughtful and suggestive essay on this subject, based on an attentive study of two patients who had come under his own observation. Both were adults; both had been exposed to malarious influences; in neither was the condition suspected during life; in both the spleen was found to be normal as regards its substance, though there were in each case patches of thickening in the capsule. He gives a brief abstract of some dozen cases which he has been able to find recorded, and then discusses their causes and mode of origin, summing up his results much as follows:—1. In the upper part of the abdomen we meet with purulent collections which are called perisplenic, though they may only touch the spleen at one point of its surface, and are by no means confined to a subserous cellular area around the spleen; by preference they occupy an irregular space bounded by the stomach, spleen, colon, and diaphragm. These collections are the termination of a circumscribed peritonitis, usually due to lesions of the spleen or alimentary canal. The infectious inflammations of the spleen (including thereby the effects of malaria) and the circular ulcer of the stomach play the principal part in the production of these intra-abdominal abscesses. 2. Purulent collections arising in connexion with the alimentary canal contain air, and this admixture betrays itself by a group of symptoms remarkably constant, which may be summed up as a more or less complete resemblance to pyo-pneumothorax, the more so when they are only separated from the pleura by the much-arched diaphragm. The nature of this false pneumothorax will be recognised at first by the existence of grave symptoms referable to the alimentary canal; later on by the variability, the exaggeration, or the insufficiency of the physical signs observed. Collections which take their origin from the spleen have hardly any characters beyond the tumefaction and pain in the hypochondrium; and the general signs of latent suppuration—tumours more or less marked or fluctuating—are rare. The diagnosis almost entirely rests on the process of exclusion. 3. Whatever may be the origin, depth, or extent of these perisplenic collections, they are not beyond the resources of modern surgery. This, then, is the essential practical point: we must spare no effort to arrive at determining, first, the existence, and next, the nature of these abscesses, and not be unnecessarily timid about making deep and repeated punctures. Performed methodically and with prudence, such explorations make our patient incur but little risk (recent works on abscess of the liver afford ample proof of this); and, on the other hand, they alone can form the starting-point of a truly rational and useful mode of treatment.

ATTENDANCE ON NIGHT-LECTURES IN MEDICAL SCHOOLS.

On Thursday, December 7, the Council of the Royal College of Surgeons in Ireland adopted a resolution to the effect that night-lectures would not in future be recognised, and further, that certificates of attendance on lectures delivered in any school of medicine in which night-lectures were given would not be received. This action of the authorities of the Royal College of Surgeons has excited much opposition in certain quarters, and on Tuesday evening last a largely attended meeting of medical students attending night-lectures in Dublin was held at the Ledwich School of Medicine, Peter-street, Dublin. It was resolved to present a memorial to the Royal College of Surgeons upon the subject, pointing out the hardships of the resolution, and begging that it might be rescinded. The students seem to think that the resolution is to be restrospective. We cannot imagine the authorities so intend it, any more than we can believe it likely that, having made so important a step in the right direction, they will now withdraw from their position.

THE CHOLERA AT MECCA.

The *Gazette Médicale d'Orient*, No. 7, dating from Constantinople, November 13, states that during the period of the recent pilgrimage to Mecca, at which about 30,000 pilgrims were assembled, there were only about 304 cases of death from cholera, and even if we were to triple these figures the mortality from the outbreak could not be regarded as large. Indeed, it is stated by the Sanitary Medical Officer at Mecca that three-fourths of those attacked recovered. Great care is being taken on the part of the Egyptians that the (about) 3000 or 4000 hadjis who are returning by sea shall not import the scourge; and to this end a sanitary encampment has been formed at the station El-Wedj, on the west of the Hedjaz, where quarantine of ten or fifteen

days will be enforced. The pilgrims will undergo a second observation at El-Ther, at the foot of Sinai, where they will pass along the Suez Canal in quarantine. Those who are going to Turkey will, furthermore, have to submit to the sanitary measures laid down by the Conseil Internationale de Santé de Constantinople. [The writer insists that the occurrence of cholera at Mecca this year is entirely due to its importation from India, and especially from British India, quarantine at the Isle of Camaran having been evaded.]

THE ARMY OF OCCUPATION IN EGYPT.

It is stated that the latest official reports of the health of our troops in Egypt show that there has been a considerable improvement during the past three weeks. The cavalry brigade has removed to the sanatorium at Halnam, and is said to be now comparatively strong and healthy. The admissions into hospital and the deaths have markedly diminished in number, and cases of enteric fever, dysentery, and diarrhœa are decidedly less numerous. Moreover, the cases of disease that occur are said to be of milder type and less fatal than those that had prevailed previously. This improvement is attributed to two causes—the cases of disease contracted during the war, and which were developed after the arrival of the troops in Cairo, are being gradually exhausted; and the hygienic conditions have been greatly improved during the past month. Moreover, it is stated that the physique and the spirits of the men have improved. The experiment of sending the convalescents for a fortnight's trip up the Nile has been very successful, for, of seventy who were sent up on the first trip, fifty-two were fit for duty on their return. Nearly all the troops are now well housed, both at Cairo and Alexandria, five regiments of infantry having recently moved into barracks at the former, and two at the latter place. The total percentage of sick is now 14 per cent. in the cavalry, 15 per cent. in the artillery, 8·6 per cent. in the infantry, and 11·4 per cent. in the other corps.

CARCINOMA OF BREAST.

Dr. Otto Sprengel has collected all the cases of cancer of the breast treated in Volkmann's clinic from 1874 to 1878—altogether 131 cases. We collect the principal conclusions from an abstract in the *Deutsche Med. Zeit.*, No. 42. Three etiological questions were inquired into:—(1.) Marriage: A great number of children appears to exercise an unfavourable influence, as does also irregular lactation (four women were able only to nurse on one side; carcinoma developed later on in the other breast). Puerperal inflammation showed itself as the most frequent cause. (2.) Traumatism: No certain information was made out in this direction, but the possibility must generally be granted, that, in consequence of long-continued irritation, carcinoma of the breast may develope. (3.) Heredity was traced only thirteen times out of 109 cases. Sprengel does not believe in a cancerous cachexia, because the general condition of the patients was not bad (except, we presume, the fatal cases). It is a matter of common remark how well and hearty carcinoma of the breast, in the early stage, finds its victims. Carcinoma was as frequent in the left mamma as in the right. Growth more frequently invades the skin than the muscles, and affection of the skin was found to be specially associated with enlargement of the axillary glands. The development of secondary growths (metastasis) may be expected in about two years. The treatment in cases suitable for operation is extirpation only. In other cases, scraping, the actual cautery, dressing with tannin, and compression with wadding, are the best modes of treatment. There were ten deaths in about 200 (including cases of recurrence) operations. In fifty-four cases recurrence took place, on the average in eight to six months, most frequently in the course of the first six months. Recurrences were dependent on extension of the disease, and happened most frequently in the axilla; hence the necessity of clearing out disease thoroughly from this space. Fifteen times out of 131 cases there was no relapse after the expiration of three years, and these were regarded as cured. In other cases, in which the wound did not heal, no doubt life was prolonged. Finally, the author advises operation at the earliest possible date. It will thus be seen that the result of statistics made in Germany is quite in accordance with the practice of most British surgeons—early and complete removal of the whole of the diseased breast, and of the lymphatics, disease of which, as Professor Lister remarked at the last meeting but one of the Clinical Society, is as much a local disease as the tumour.

THE YELLOW FEVER IN THE UNITED STATES.

The *New York Med. Record* (November 11) states that there is a steady decline in the number of cases of yellow fever at Pensacola (Florida). Only nine or ten new cases occur daily. The total number of cases (*Med. News*, No. 18) up to November 12 was 2280, with only 194 deaths.

THE TROUBLES OF THE METROPOLITAN ASYLUMS BOARD.

At the usual fortnightly meeting of the Managers of the Metropolitan Asylums Board, held on Saturday last, it was announced that an answer had been received from the Local Government Board in reply to the Managers' inquiry as to whether legislation to strengthen their hands would be at once promoted, in accordance with the report of the Royal Commission. The communication stated that the Government could not at the present time undertake to say what measures they would be able to bring forward during the next session of Parliament. On this the Chairman of the Board observed that he could not regard the letter otherwise than most unsatisfactory. The Managers knew that the recommendations of the Royal Commissioners were vastly in excess of any powers they now had; but, at the present time, they were powerless to make further provision for patients, as it would be very risky to rent places for them in face of litigation. Assuming that an epidemic like that which they had last year broke out, it would be impossible to provide for the patients; and he could not conceive a more important subject to engage the attention of the Government, for it was one that not only affected the sick poor, but the lives and health of the whole metropolis. In the face of the present inaction of the Local Government Board, the Managers could not feel warranted in going further than they could help. He would therefore recommend that the letter be referred to the General Purposes Committee, with power to ask an interview with the Prime Minister. The motion having been seconded, Sir E. H. Currie remarked that when epidemics did arise, people complained that the Managers were not prepared, and that was true; but the public must now see that the fault did not rest with the Managers, who, in face of the inaction of the Local Government Board, were utterly powerless. The answer of the Local Government Board seemed to indicate that that department felt the most perfect indifference with regard to the health of the metropolis, and, in fact, in the previous epidemics the Managers had to awaken the central authority to the danger of the position. The motion was carried unanimously. The returns of the fever asylums showed that during the past fortnight 127 patients had been admitted, 18 had died, and 173 had been discharged, leaving 437 scarlet fever cases under treatment, 18 typhus cases, and 136 enteric cases—a

total of 602, showing a decrease of 51 on the numbers remaining a fortnight ago. During the same period there had only been 21 small-pox cases admitted, and the discharge of 25 left 67 under treatment—a decrease of 5 on the number a fortnight since.

THE COMPLICATION OF LABOUR WITH OVARIAN TUMOURS.

DR. R. LOMER, of Leipzig, contributes a paper on the above subject to a recent number of the *Archiv für Gynäkologie*. His conclusions are based upon the collections of cases made by Playfair and by Jetter. We shall only quote those which relate to treatment. But we may remark, first, that the tumours in the cases in question are always small, for the reason that large tumours are commonly found out before labour begins; and it is obvious that only a tumour small enough to be contained in the pelvic cavity can obstruct labour. Dr. Lomer's first practical rule is one of which the wisdom is obvious. It is, that in labours complicated with ovarian tumour, interference should not be too long delayed. 2. In all cases an attempt should be made to push the tumour out of the way, above the pelvic brim. 3. If this cannot be done, the puncture of the cyst should be the next alternative. 4. Should the contents of the tumour be too viscid to flow through a canula, a free incision should be made into the cyst-wall. Dr. Lomer remarks that from this measure to the pulling down of the cyst, ligature of its pedicle, and removal of the tumour—that is, vaginal ovariotomy—would seem but a step. Nevertheless, the latter operation has never yet been done, lack of time usually having been a sufficient obstacle. When the cyst has once been emptied, vigorous pains have forced down the child, and so put a stop to the operator's further proceedings. 5. All further attempts at emptying the tumour are dangerous, and should not be attempted. 6. When the tumour can neither be pushed up nor diminished in size, the choice must be made, according to the peculiarities of each case, between perforation and Cæsarian section.

THE POSITION OF SHIP-SURGEONS.

AT the last meeting of the Manchester Medico-Ethical Association, held on the 8th inst., Dr. Irwin introduced for discussion "The Position of Ship-Surgeons," and the following resolution was unanimously adopted:—"That this Association is convinced that the medical and sanitary departments of our mercantile marine are in a highly unsatisfactory condition, and that the lives of passengers are frequently endangered thereby. That this Association desires to press upon the Government the necessity of an immediate inquiry into the position, status, and efficiency of surgeons upon passenger-ships."

THE PARIS WEEKLY RETURN.

THE number of deaths for the forty-eighth week of 1882, terminating November 30, was 1064 (573 males and 491 females), and among these there were from typhoid fever 73, small-pox 11, measles 8, scarlatina 2, pertussis 2, diphtheria and croup 32, dysentery 1, erysipelas 4, and puerperal infections 3. There were also 33 from acute and tubercular meningitis, 212 from phthisis, 34 from acute bronchitis, 73 from pneumonia, 77 from infantile athrepsia (25 of the infants having been wholly or partially suckled), and 31 violent deaths (24 males and 7 females). The number of deaths registered is larger than the mean of the last four weeks. The deaths from typhoid fever continue to diminish (73 instead of 79), and the other epidemic affections remain nearly stationary. There were also only 171 cases of typhoid admitted, instead of the 221 of the preceding week. Diphtheria has not increased as it usually does at this period of the year, and consequently the mean number of deaths per week from the forty-second to the forty-eighth week has only been 32 instead of 50 in 1881. The births for the week amounted to 1235, viz., 642 males (475 legitimate and 167 illegitimate) and 593 females (433 legitimate and 160 illegitimate): 87 infants were either born dead or died within twenty-four hours, viz., 51 males (41 legitimate and 10 illegitimate) and 36 females (28 legitimate and 8 illegitimate).

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THE following Fellows of the College have been appointed examiners for membership for the year 1883:—1. In Principles of Medicine, including Medical Anatomy and Medical Chemistry—J. Mallet Purser, M.D., and J. Magee Finny, M.D.; 2. In Practice of Medicine, including Principles of Public Health—Francis R. Cruise, M.D., Vice-President, and George F. Duffey, M.D.; 3. In Clinical Medicine—Arthur Wynne Foot, M.D., and Christopher J. Nixon, M.B. The Court of Examiners for the certificate in Sanitary Science during 1883 will be constituted as follows:—1. Engineering—Mervyn J. B. Pratt, C.E., M.A., M.E. Univ. Dub.; 2. Law—George Roberts Price, B.A. Univ. Dub., barrister-at-law; 3. Etiology and Prevention of Disease—Francis R. Cruise, M.D., Vice-President of the College; 4. Chemistry, Air, Water, Food—Walter George Smith, M.D.; 5. Meteorology, Climatology, and Vital Statistics—Francis J. B. Quinlan, M.D.

EXTIRPATION OF A COLOSSAL TUMOUR.

DR. BRUNTZEL, of Breslau, has successfully removed the left kidney with a colossal fibroma of its capsule. The fact is worth recording as another triumph of abdominal surgery, for the growth weighed thirty-seven pounds and a quarter. The patient was a female, thirty-three years of age. The tumour was first noticed five years before, and had gradually increased in size; it was painless. When seen by Spiegelberg and Bruntzel in 1879, it was thought to be probably connected with the uterus; menstruation was natural, and had been so since the age of fourteen. An exploratory puncture revealed nothing. In June, 1882, there was much emaciation, but no genuine cachexia; the swelling reached from the ensiform cartilage to the pubic symphysis, and distended the abdomen uniformly in all directions; there were no physical signs of disease in any other organ. Abdominal section was performed in July, with strict antiseptic precautions; the incision extended from the xiphoid process to the symphysis pubis. The tumour was found to be retro-peritoneal in situation. The descending colon was felt in front of it at a hand's breadth from the mesial line. Punctures were made into the fluctuating growth without success; but by perseverance the enormous tumour and kidney were got out; the vascular pedicle was secured, the wound closed and drained in the manner of an ovariotomy; and compression and ortholox Listerism were adopted as dressings. There were marked signs of collapse on the removal of the fibroma, which were combated by hypodermic injections of ether and the performance of artificial respiration. The tumour was found to be a gigantic fibroma, which had originated in the left renal capsule, and was composed of a number of lobes, of sizes varying from a child's to a man's head. In this dense fibrous structure there were some areas of a loose, fatty nature, and in the centre was a reddish-yellow area of softening, with a thrombosed vessel in its neighbourhood. The left kidney was seated in a hilus, and its structure was quite normal. The sensation of fluctuation that had been felt was probably due to the presence of the intermingled fat. The operation lasted two hours and a half. After the operation the pulse

was very freqnent, the temperature varied a little, the belly remained quite flaccid, and the discharge sweet. Vomiting never occurred, but some discomfort was felt from the loaded state of the tongue and mouth. The quantity of urine was very small for the first six days, but after that it attained to the normal, and so remained. A loose stool was passed on the eighth day. The superficial sutures were removed on the seventh day. The drainage-tube was done away with on the ninth day. On the tenth day something sudden happened, for the temperature rose, and the patient became unconscious and collapsed. This accident was attributed with justice to the descending colon having been ulcerated through, and the escape of a little fæces from the small sinus yet remaining. The fistula healed, after being cauterised, in the beginning of August. A fresh escape of fæces began at the end of the same month, and, although very small in amount, lasted. Another accident of a very interesting nature happened immediately after the operation, namely, paralysis of both *upper* extremities. Bruntzel speculates on this being of a reflex mechanism. It lasted in the right hand almost six weeks, and longer in the left. For treatment faradisation was used. We should like to know more of the distribution and electrical reaction of this paralysis. Notwithstanding these unfortunate occurrences, the patient did so well as to get up at the fourth week, and her weight was seventy-five pounds (just as much again as the tumour weighed). Further improvement of the general health took place, but menstruation had not returned.

TYPHOID FEVER IN PARIS.

THE *Gazette Médicale* states that the number of patients in the hospitals suffering from typhoid fever diminishes but slowly, as while on the morning of November 30 there were 1158, on that of December 7 there were still 1037—a difference of 121 only. The total number of entries for the week November 30 to December 6 was 152, and of the deaths 22, being a daily mean of entries of 25·33, and of deaths 3·66, or 2·33 entries more and 0·34 less deaths than in the week before. The diminution in the progress of the disease has for the time become, therefore, slightly arrested.

THE HEALTH REPORT ON NEWCASTLE-ON-TYNE, YEAR 1881.

THE most important item of intelligence contained in the annual report on the health of the borough of Newcastle-on-Tyne for the year 1881, presented in June last to the Sanitary Committee by Mr. Henry E. Armstrong, the Medical Officer of Health for the district, is that the rate of mortality during the past year was the lowest on record. The actual ratio was 21·7, which is less by 0·6 per 1000 than that for 1880—up to that time the lowest attained,—and is, moreover, particularly satisfactory from the fact that practically it is calculated on the population of the census, whereas the rates for 1880 and the years immediately preceding were somewhat understated, because based on populations which the recent census has shown were over-estimated. Although, as the report shows, the present hospital for infectious diseases has been of much service in isolating patients during the past year, it is universally admitted to be quite inadequate to meet the wants of the borough. Nevertheless, at the close of 1881, the Sanitary Committee were compelled to a limit that they had been unsuccessful in obtaining a suitable site for the erection of a new and more capacious building. In two instances, after localities had been selected, so much pressure was brought to bear upon the authorities, both by residents and owners of property in the vicinity, that in each case the idea had to be abandoned. This difficulty will undoubtedly very often have to be encountered, unless compulsory power of purchase for such purposes be granted by Parliament for the public benefit. During 1881, eighty cases of small-pox came under notice in Newcastle, with ten deaths; prior to these, only one case of this disease is known to have occurred in the borough since the year 1877. There is reason to believe, the report says, that the infection was first brought to the town by a seafaring man who had recently arrived from Antwerp, where the disease was then prevalent. Mr. Armstrong must be congratulated on the completeness of his report, and the tables and diagrams accompanying it.

PROFESSOR DUMAS.

THIS illustrious chemist and distinguished *savant* celebrated his golden wedding with the Académie des Sciences, fifty years having expired since his election into that body, of which he is perpetual secretary. His colleagues, pupils, and other admirers presented him with a gold medal on the occasion. Prof. Jamin, the President of the Academy, on presenting the medal to his former master, drew a masterly sketch of the great services he had rendered to science—commencing at Geneva, at the early age of twenty-two, with physiological discoveries, which have remained celebrated, on urea, the blood, and generation. "Who then, master," he exclaimed, "does not carry in his mind the charms and wonders of your teaching, at the Athenæum, the Polytechnic, the Sorbonne, the École de Médecine, the Collége de France, and the École Centrale? Everywhere you appeared, not only the youthful auditors, but those of ripe age were attracted, retained, charmed, and carried away to such a point, that it becomes allowable to declare that you have rendered still greater services by the vocations you have determined than by your own discoveries." Those who have heard the great orator (now in the eighty-third year of his age), on the occasions on which he has spoken in this country, will be in a position to conceive the eloquence of his reply, interrupted though it was by emotion he could hardly suppress.

MALIGNANT ŒDEMA.

BRIEGER and Ehrlich, working in Frerichs' clinic, have recorded (*Berliner Klin. Wochen.*, No. 44) two cases of an affection associated with typhoid fever in which they recognise a disease that in animals has been called "malignant œdema." This malady is an infectious one, and dependent on, or at all events associated with, a bacterium which has sufficiently well-defined characters. The exciting cause of the malignant œdema in the authors' cases was a hypodermic injection of a musk solution administered as a stimulant to overcome the state of profound collapse into which both patients had fallen. Much swelling of the subcutaneous tissue, with emphysematous crackling and discoloration of skin at the site of the former injection (in the thigh in both examples), coming on in forty-eight hours, were the features descriptive of the malignant œdema. The authors remember to have met with another example of the affection in a case of diphtheria, but here there was no obvious exciting cause, and the emphysematous and œdematous conditions developed about the front of the chest. Inoculations of some of the fluid from the diseased thigh of the typhoid patients, performed on rabbits and guinea-pigs, brought about the usual characters of malignant œdema at the focus of vaccination, and the animals died in a few days. The existence of the septic vibrios was proved by the microscope (after the usual method of preparation), both in the fluids of the patient and in those of the animals experimented upon. Brieger and Ehrlich regarded their patients as suffering from a *mixed infection*, the virus of enteric fever and that of malignant œdema being both present at the same time. There

are many facts in medicine which might be looked upon as demonstrating the predisposition which one complaint establishes for another—noma following measles and other acute specific diseases, tuberculosis after measles and whooping-cough, joint-suppurations after typhus, septicæmia after scarlatina, and many other examples. In the language of bacterial pathology, the human garden, by the action of one bacillus, is prepared and fitted for the growth and development of another micro-organism, which in the normal state of health would not have found so suitable a nidus.

In a Congregation held at Oxford on December 7, Joseph Arderne Ormerod, of Jesus College, and Samuel Hatch West, of Christ Church, were admitted to the degree of M.D. And in a Congregation held on the same day at Cambridge, the degree of M.D. was conferred on William Collingridge, of Christ's College.

The Registrar-General's return for the week ending December 9 shows that in London the annual rate of mortality, which in the immediately preceding week had been equal to 21·5 per 1000, rose again last week to 22·4; but the deaths were 124 below the average number of the corresponding weeks of the last ten years. The total of the deaths from zymotic diseases was also below the corrected average number for the corresponding weeks of the previous ten years. The effects of the frost and fog upon the mortality will appear later in the Registrar-General's returns.

FROM ABROAD.

The Fees in President Garfield's Case.

Judging from the following article in the *Philadelphia Med. Reporter* of November 11, this matter is becoming a professional scandal.

"The public is at present being treated to a discussion about the fees of physicians and surgeons in connexion with the claims handed in by the attendants on President Garfield. More than one of these has felt it incumbent upon him to present the matter to the public in statements in the daily papers. The amounts of the fees claimed indicate how wide is the range placed upon the value of their services by different professional men. One of them asks just double the amount of another, who furnished equal services, and is not less competent in all respects. Another puts his claim (with characteristic modesty) not in figures, but relatively, by saying that he is entitled to twice the fee of any other medical man in attendance. It is obvious, from the amount of money placed at the disposal of the Committee, that Congress did not contemplate paying claims of any such magnitude as have been put in. Probably, the public also are of this way of thinking. They certainly are, if we may judge by the comments of the Press. These are generally to the effect that the bills for professional services are, in the aggregate and in certain items, excessive, if not extortionate. Certainly there has never been, in the history of the country, any case, either in public or private life, where anything like such an amount has been claimed, and, to say the least, it does appear in an unfortunate light that the national disgrace of such an assassination should be followed by an unpleasant appearance of professional grasping. It would have been much more dignified for the whole question of professional remuneration to have been left to some of the eminently respectable and judicious medical bodies in this country to determine.

"Speaking in a general way, the basis on which such a body would ground its decision would be the average value of the physician's time, as shown by his annual income. In the case in question there were no serious operations performed, and nothing was done that tasked the skill or knowledge of the attendants. It was a case of gunshot wound, which ran an ordinary course, and was not interfered with. The unusual responsibilities and anxieties on account of the distinguished rank of the patient, about which considerable has been said, should not fall heavily on any single individual, as they were only too eagerly sought after and divided up. Moreover, practically speaking, they were more than compensated for by the *éclat* which the fact of being called in attendance reflected on the reputation of those whose advice was asked. It is unfair, however, to bring into the estimate, as some newspapers have done, the fact that all these attentions did not save the patient; nay, that it has been publicly asserted by leading surgeons in this and other countries that grave errors of diagnosis and treatment were committed, because such statements cannot be proved, and if proved, no surgeon pretends to constant success or infallibility. If there were such errors they were honest ones. The total amount of the fees claimed is $85,000, or, including the relative claim, $110,000—considerably more than $1000 a day. In spite of our desire to support the profession in its just rights, we acknowledge that this staggers us."

Damages for Accident while under Anæsthesia.

"The decision of Judge McAdam in a recent suit brought against a dentist of this city" (*New York Med. Record*, November 4)," to recover for injuries caused by allowing a piece of tooth, which was being extracted, to drop down the patient's throat while he was under the influence of laughing-gas, is one full of importance, not only to dentists, but to surgeons as well. It was alleged that the piece of tooth slipped from the forceps, and that for four weeks after the plaintiff was troubled with a cough, until he finally expectorated the piece. The Court held that while the patient was under the influence of an anæsthetic which deprived him of the use of his faculties the operator was bound to exercise the highest professional skill and diligence to avoid every possible danger, and in this case it was the opinion of the Court that the circumstances shown were sufficient to carry the case to the jury on the question of negligence. The judgment appealed from was in favour of the plaintiff for $500 damages, and this judgment was affirmed by the present decision.

"The whole question evidently turns upon the fact whether or no there was negligence. It is fair to presume, in view of the circumstances of the case, the patient being at the time unable to protect himself, that the full onus of any supposed negligence must be borne by the defendant. In view of this it behoves the operator to exercise extraordinary care to prevent accidents. It is hardly necessary to say that this is a rule very generally observed by surgeons, and accidents inflicting injuries on patients are, in consequence, comparatively rare. No reasonable excuse can be offered for neglect to exercise even more than ordinary skill in guarding against such mishaps. The law holds that no person should assume extra responsibility in the management of any case without bringing to the same a corresponding amount of skill to meet emergencies. During anæsthesia there is an implied guarantee to the patient that no known precaution that can be taken shall be omitted to guard against every possible accident. The same holds true regarding every step in any operation, the surgeon being bound to exercise his best judgment, his most watchful care, and greatest skill for the benefit of his helpless and trusting patient. That accidents will happen, despite all precautions to the contrary, is well known, and the case under consideration appears to form a striking illustration of the fact. The result of the suit may, however, establish a precedent which is full of danger to any operator who is forced to take extra risks for his patient."

How to Hang a Man.

Some time since Dr. Greme Hammond read a paper before the New York Medico-Legal Society (*New York Medical Record*, October 14), having for title, "On the Proper Method of executing the Sentence of Death by Hanging." In this he passes in review the various modes in which this punishment has been carried out, and the views held by those who have written concerning it; and gives an account of the feelings produced by an experimental semi-strangulation performed upon himself.

"My own experience," he says, "was somewhat similar to that obtained by other observers, except in the fact that strangulation was not carried to that point at which respiration ceases entirely. My object was more particularly to demonstrate the painlessness of the operation than to show the existence of any new sensations. With the assistance of two medical friends I was partially strangled in the following manner:—After being placed in a sitting posture, a towel was passed around my neck, and the ends twisted together. Of course with every twist very forcible compression was made on the entire circumference of the neck. One of my friends was entrusted with the twisting, while the other was stationed in front of me in order that he might watch my face, and at the same time make the necessary tests of the cessation of sensibility. My sensation from the first twist may be briefly stated as follows:—I first noticed a sensation of warmth and tingling, beginning in the feet, and quickly passing over the entire body. Vision partially disappeared, but there was no appearance of coloured lights. My head felt as if about to burst, and there was a confused roaring in the ears. I suffered no loss of consciousness, and was fully able to tell my friend whether I felt any pain from the knife-thrusts he was inflicting on my hand. In one minute and twenty seconds after the commencement of the operation all sensibility was abolished. After a few minutes' rest, a second trial was made. This was followed by symptoms similar in character, except that sensibility ceased in fifty-five seconds. A stab with a knife, sufficiently deep to draw blood, was indicative of no sensation whatever.

"Taking into consideration my own symptoms, and the accounts of those cases previously described in this paper, it is obvious that the proper and orderly way to execute the law, in the case of a person condemned to death by hanging, is not to let him fall or to jerk him into the air, but to stand him on the ground, or on a suitable platform, and to adjust the noose carefully around his neck below the larynx. If he is made to fall through a trap, or is lifted suddenly from the ground, this important end can never be assured. The noose is almost certain to become displaced, and hence death is not so sudden as it ought to be. Having arranged the noose properly, the person should be raised from the place on which he is standing by pulling on the rope, which should pass over a pulley fixed to a beam above, and he should be allowed to hang for thirty minutes. The rope should be soft and flexible, so as to fit closely to the neck. Probably one of cotton or flax would be preferable to the hempen one usually employed. Carried out in this manner, hanging will be effectually and mercifully performed. The condemned would undergo no physical or mental suffering from the moment that the suspension began, and his life would be taken as speedily and with as much freedom from horrible events as the circumstances of the case would allow. It would be better with persons weighing less than 150 lbs. to attach a weight to the feet, so as to assure a sufficient degree of traction on the cord. It is supposed by many that dislocation of the neck produces instant death; such, however, is by no means certainly the case. There are instances on record in which the vertebræ of the neck have been dislocated and recovery has taken place. Moreover, even when death does occur, it is no more instantaneous than when asphyxia is accomplished, and there is no greater freedom from convulsions. In some recent cases of hanging there were no convulsions of the limbs, and yet the neck was neither dislocated nor broken. Of these things we may be positively sure—that from the instant that suspension takes place there is no sensibility to pain, and that the convulsions which ensue are no more evidence of pain than are the movements of a decapitated chicken; they are such as always ensue with insensibility when the bloodvessels of the neck and trachea are suddenly closed."

Fatal Influence of Anæsthetics in Diseases of the Kidney.—Dr. Laurence Turnbull, in a paper read at the American Medical Association in 1882 (an abstract of which is published in the *Phil. Med. Reporter*, October 14), reiterates cautions already given by him against administering anæsthetics in patients who are suffering from any form of affection of the kidney. Fatal results frequently follow, and this practice has been the cause of many deaths without being suspected.

REVIEWS.

The International Encyclopædia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Nations. Edited by John Ashhurst, jun., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromolithographs and woodcuts. In six volumes. Vol. I. London: Macmillan and Co. 1882.

[Second Notice.]

In the *Medical Times and Gazette* for April 8, 1882, page 367, will be found our first notice of the first volume of the "International Encyclopædia of Surgery." To-day we comment on the second half of the same volume. In this we find articles on "General Principles of Surgical Diagnosis," by D. Hayes Agnew; "Shock," by C. W. Mansell-Moullin; "Traumatic Delirium and Delirium Tremens," by William Hunt; "Anæsthetics and Anæsthesia," by Henry M. Lyman; "Operative Surgery in General," by J. H. Brinton; "Minor Surgery," by Charles T. Hunter; "Plastic Surgery," by Christopher Johnston; "Amputations," by John Ashhurst, jun. Of these eight authors, Mr. Mansell-Moullin, the Surgical Registrar to the London Hospital, London, is the only one who is not American. Of the seven Americans no less than five of them are surgeons of Philadelphia; Dr. Lyman is attached to the Rush Medical College, Chicago; and Dr. Johnston is Emeritus Professor of Surgery in the University of Maryland, Baltimore. Thus American, or at most Anglo-American, rather than International, is the fitting designation of this part of the work.

Dr. Hayes Agnew's article deals with the General Principles of Surgical Diagnosis in a manner which is perfectly familiar to those of us who know the work on Surgery which he has for the last few years been bringing out. There is the same general arrangement, with slight variations in detail; and illustrations, slightly varied, of the same three subjects, viz., clinical thermometer, æsthesiometer, and dynamometer, which are to be found in the introductory chapter of "Agnew's Surgery." It is a very good article, and the author treats his subject in a methodical and clear manner; but it affords an excellent example (like other articles in the same work) of the fact that a new book on surgery, though it be an encyclopædia, does not mean new material or fresh information.

The chapter on Shock, by Mr. Mansell-Moullin, is a very good *resumé* of what has been previously said on the subject. It is a pity the author has quoted Goltz's experiment on a frog as having "thrown a flood of light upon much that before was mere conjecture." By his statement in the next paragraph, "The suggestions of Travers and others, that such phenomena as are presented in shock can only be produced by the suspension of the nervous power, manifesting itself through the circulation, have found their clearest proof in the facts of physiology"—he puts an argument into the reasonings of the anti-vivisectionists; for the experiment really added nothing to our knowledge,—both the fact and the explanation of the fact remain the same. We may remark, in passing, that though supporters of vivisection when properly pursued, we yet feel that there is nearly as much cant talked and written about it by its defenders as by its opponents.

A section in this chapter is devoted to "fatty embolism." Its connexion with "shock" is not very clear, but, as Mr. Moullin suggests, some fatal cases which have been set down to shock *may have been* due to fatty embolism. Probably its connexion with some forms of acute blood-poisoning is much closer. It is to be regretted that no mention is made, either in the table of contents or in the heading of the article, of fatty embolism, for the section is instructive and well worthy of study.

Dr. William Hunt gives an exhaustive account of the causes of Traumatic Delirium, and makes some suggestive remarks on what he calls the "anatomy of delirium." The term is not used in the same sense as Burton's "Anatomy of Melancholy," and the subject-matter would not have taken Dr. Johnson out of bed "two hours sooner than he wished to rise": but it is important, as suggesting the scope there is for inquiry into the morbid states of the brain associated with delirium. The author from his own experience inclines to the conclusion of Hughlings-Jackson and others—"that the posterior lobes of the hemispheres have more to do with ordinary

intellectual processes than the anterior." In the description of delirium tremens we miss any mention of the frequent existence of kidney disease in the subjects of it; and perhaps, as a consequence of this, we find under "treatment" sedatives and alcohol recommended. "At times the case is so urgent that these have to be resorted to at once in order to procure sleep, and other indications may be met afterwards. It is in this state that the surgeon most frequently finds his delirium tremens patients. Time often will not permit him to take risks. Then hypodermic injections of morphia should be given." We entirely dissent from the practice thus indicated. Possibly its adoption explains the continued delirium noted in the chart Fig. 34, and the frequent relapses in the chart Fig. 35.

Dr. Henry M. Lyman gives an interesting "History of Anæsthesia." He then goes on to discuss the phenomena, physiology, and accidents of anæsthesia, and the circumstances under which anæsthesia is required. Local anæsthesia, and the various methods, other than by chloroform, ether, and bichloride of methylene, of producing anæsthesia, are described. There is wanting a description of the post-mortem appearances in cases of death from chloroform, ether, etc. The whole subject is dismissed in eight lines, and with the statement that "the victims of anæsthesia present nothing positive or characteristic." We need more information than we have on this point, and certainly in an article in an encyclopædia the reader ought to be furnished with a summary of the actual conditions which he ought to expect, and with others which he might possibly, though rarely, meet with in making a post-mortem examination of such a case. Perhaps the author will reply, "This is not an encyclopædia either of pathology or medical jurisprudence"; still we would suggest that such information based on actual post-mortem examinations is needed, and might advantageously have occupied the space allotted to "hydrocarbons and their derivatives," and the many other anæsthetic substances, which might more fittingly be contained in an encyclopædia of chemistry than of surgery.

In the next article, "Operative Surgery in General," Dr. John H. Brinton may be said to continue the subject of anæsthesia, for he devotes several pages to it. These will, too, be found of much more value to the surgeon or the practical administrator than the article specially devoted to anæsthetics. Dr. Brinton's remarks on the "mode of conducting an operation" are worthy of the attention of all who have to operate or assist at operations. His directions to the operator, which perhaps we may not inadequately sum up in the words "*Watch always, and be prepared*"; and to the assistant, to be always ready and efficient, but never fussy or officious, are too often in need of application. He justly calls in question Erichsen's employment of the term "Lister's method," as applied to the plan of "emptying a limb of blood by simply elevating it to the highest point and then stroking it in the direction of the venous circulation." Dr. Brinton has witnessed the method in the hands of Pancoast, of Philadelphia, thirty years ago; and the writer of this notice witnessed it in the practice of Hilton, of Guy's Hospital, twenty years ago. A very large proportion of this article is given up to the consideration of the "conditions determining the results of operations," and the "causes of death after operation." Erysipelas is spoken of as being sometimes due to cold and dampness, and other atmospheric vicissitudes, and as being prone to make its appearance in persons of broken-down constitution. Even pyæmia and septicæmia are said to be most often met with "in patients of depraved system, or in the aged, or in those who have been broken down by overwork, mental or bodily." It speaks well for the absence of bias in the mind which can in these days take this view. We have been told of late, so often and so emphatically, that not a drop of pus, no erysipelas, and no pyæmia or septicæmia follow if wounds are only dressed after a certain fashion, and that the most hazardous operations can be done without the slightest risk if only special precautions in the surgeon's method are employed, that we have been almost persuaded to lose sight of the fact that there is another party (viz., the patient) besides the surgeon and his assistants concerned in an operation. We are reminded, by such assertions, of the philosophic reasoning of Hamlet which he hints at rather than expresses in the words—

> "For if the sun breed maggots in a dead dog,
> Being a god kissing carrion."

In other words, Hamlet meant, Exalt the thing operating—be it god or antiseptics—as high as may be, surely the effect will follow partly, and too often largely, from the thing operated upon, be it carrion or the living tissues. The same thought is again suggested by a passage in *Measure for Measure*—

> "Who sins most?
> , , but it is I,
> That lying by the violet in the sun,
> Do as the carrion does, not as the flower,
> Corrupt by virtuous season."

Do not we, as surgeons, see, under exactly the same processes, results in the young which we cannot obtain in the middle-aged and old? And can we conscientiously declare that we shall attain the same results, and in the same manner, in the enfeebled and diseased that we shall in the healthy and robust? If not, what becomes of the oft-repeated assurance, "Absolutely no danger" in this or that operation? Dr. Brinton's article is an excellent contribution to the Encyclopædia.

Dr. Hunter's chapter on Minor Surgery does not require special notice: it is as full and as well illustrated as can be expected in a work of this character. Besides the modes of applying the ordinary forms of bandages, blood-letting, transfusion, artificial respiration, vaccination, and other subjects usually described in treatises on minor surgery, the author gives sections on the surgical uses of electricity, massage, and the use of the sphygmograph. The use of the thermometer in surgery is again referred to at some length, and another drawing of a clinical thermometer is furnished!

"Plastic Surgery," from the pen of Dr. Christopher Johnston, is for the most part a description of skin-grafting. The author briefly refers, however, to the "lesions remediable by plastic surgery," "the general principles of, and general rules for, plastic operations." Perhaps the chief value of this contribution consists in the numerous references on the subject of skin-grafting. It does not contain a single illustration, though some of the plastic operations strike us as needing explanation by drawings. These operations, however, are not even described in detail by Dr. Johnston.

Dr. John Ashhurst has written a very exhaustive article on Amputations, which is abundantly illustrated; but, it must be added, the illustrations are in many instances crude and unfinished, though, for the most part, they clearly depict the points to be shown. The article is divided into two parts. In the first there is all that relates to amputations generally, including the various modes of dressing stumps, the adaptation of artificial limbs, and the mortality and causes of death after amputations; with a table showing the results of 100 consecutive cases of major amputations, besides several other tables referring to the influence of various circumstances, such as age, sex, etc., on the results. In the second part special amputations are described, and at the end there is a table of 633 cases of hip-joint amputation, showing the nature of the cause for which the operation was performed, whether the amputation was primary or secondary, and the form and result of the operation. The only criticism we will offer on this able article is this, that the description of the "dressing of the stump" occupies several pages, and anticipates the articles in the second volume on the treatment of "Wounds." No doubt this kind of repetition is inevitable in a work of this sort, for it occurs again and again in vol. i., as our notices of it show.

SOLUBILITY OF MORPHIA.—Some recent experiments by Mr. Lloyd (*New Remedies*) show that some of the statements of our text-books in regard to the solubility of morphia require modification. According to him, one part of the acetate requires 11·7 parts of water at 60° Fahr., and 1·34 parts at 212°; and of alcohol specific gravity ·820 at 60° Fahr. 68·3 parts, and at boiling point 13·3 parts. The hydrochlorate requires for one part 23·4 parts of water at 60° and 0·51 part at 212°; and of alcohol at 60° Fahr. 701·5, and at boiling point 144 parts. The sulphate requires for one part 21·6 parts at 60° Fahr., and 0·75 part at 212°; and of alcohol at 60° Fahr. 701·5, and at boiling point 144 parts. The most important fact to be observed is that sulphate of morphia is almost insoluble in cold alcohol, and that water at 60° Fahr. will not hold more than about three grains to the fluid drachm.

GENERAL CORRESPONDENCE.

BRITISH RAINFALL.

LETTER FROM MR. G. J. SYMONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am just preparing to issue, to all the observers of rainfall known to me, blank forms for the entry of their records for the year shortly about to close. This staff now exceeds 2000, but still, as they are not unfrequently rather clustered, there are many parts of the country where additional records are needed.

I have no doubt that records are already kept in many places unknown to me, and I shall be glad if you will allow me to invite communications from anyone who has kept an accurate record, and to supply either those already observing or contemplating doing so with a copy of the rules adopted by British observers and with all necessary blank forms—all, I may perhaps as well add, free of charge, as our greatest requirements are ample and accurate records.

I am, &c., G. J. SYMONS, F.R.S.

62, Camden-square, N.W.

REPORTS OF SOCIETIES.

THE CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 8.

JOSEPH LISTER, F.R.S., President, in the Chair.

AN interesting living specimen of alleged Pseudo-hypertrophic Paralysis in an adult male, aged twenty-four, was exhibited by Dr. GREEN.

The whole of the time of the meeting was devoted to the paper and discussion on the treatment of Intussusception in Children.

THREE CASES OF INTUSSUSCEPTION IN INFANTS TREATED BY ABDOMINAL SECTION.

These cases were detailed by Mr. RICKMAN GODLEE. *Case* 1, aged nine months, was admitted into University College Hospital, with well-marked symptoms of intussusception, from which it had been suffering for four days. The bowel protruded at the anus. The child was very ill and weak, and it was doubted whether it was justifiable to perform any operation. It was not thought wise to spend much time on attempts at inflation, and accordingly abdominal section was performed without delay. Antiseptic precautions were adopted throughout; the child being, as far as possible, protected from the chilling influence of the spray by using as small a volume of it as possible, and wrapping up the greater part of the trunk and legs in cotton-wool. No great difficulty was experienced in finding the point of involution, nor in reducing the intussuscepted part; the wound was secured as in an ovariotomy, and a dressing of iodoform wool was applied and secured by a flannel roller. The temperature rose the day after the operation to 105°, but soon fell to about 100°. It was necessary to give small quantities of brandy after the operation, and for some few days minim doses of laudanum were given to check restlessness and a slight diarrhœa which ensued. A little suppuration occurred along the course of the sutures, but the wound healed well, and by the eleventh day it had completely closed, the child being apparently in perfect health. *Case* 2 was a somewhat younger child, who had been seized with sudden pain two days previously. The symptoms of intussusception were clear, and a sausage-shaped tumour was felt to the right of the umbilicus, easily movable, especially from above down. In the intervals between the spasms the child was apparently free from pain. Under the influence of chloroform the tumour could be easily felt, and it was thought that it diminished under manipulation, but as a considerable mass remained, the abdominal section was performed as in the previous case, and reduction was effected by grasping the end of the ileum and drawing it towards the wound. Next morning the child seemed pretty well, but peritonitis set in rapidly, and death occurred the following night. The spray used in this case was remarkably small. At the autopsy the last two inches of the ileum and the first two of the cæcum were found much congested and thickened, and some slight ulceration had occurred in the ileum; the rest of the intestines were almost empty. There were marked appearances of peritonitis. *Case* 3: A child, aged fourteen weeks, was admitted into the North-Eastern Hospital for Children, with symptoms of intussusception that had lasted several days. The child was very ill, and the abdomen much distended and tender. The bowel protruded at the anus. Abdominal section was performed. It was very difficult to find the point of involution, which was seated deeply in the splenic region, and correspondingly difficult to effect the reduction. After about four inches had been drawn out the cæcum and vermiform appendix appeared, and, thinking that the reduction was complete, Mr. Godlee drew the cæcum towards the iliac fossa and closed the wound in the abdominal wall. The child never rallied, but died eight hours after the operation. At the autopsy it was found that seven inches of large intestine still remained unreduced. It was clear that the involution had commenced, not, as is usually the case, at the ileo-cæcal valve, but at some point in the course of the transverse, or perhaps the ascending, colon. Some sloughing had already occurred in the cæcum. Mr. Godlee pointed out how easily such a mistake as that which he made in the last case may occur, and the manner in which it may be avoided. He did not feel discouraged by the result of the last two cases, but whenever the gut protruded at the anus he would at once proceed to the operation, or, at all events, would not waste much time in attempting inflation. On the other hand, in cases such as the second recorded he would give inflation and injection a good trial, since those are the cases most likely to be cured by this proceeding, and they are in a condition better able to bear the exhausting results which it causes; and moreover, it is clear that the danger of peritonitis is a real one, even if the operation be carried out antiseptically.

Mr. G. BROWN related the case of a boy, in which he had been unable to reduce the intussusception by manipulation after abdominal section. The child, aged two years and nine months, was suddenly seized on April 14 with severe pain in the abdomen and vomiting. The bowels had acted naturally in the morning. Four hours after the onset of the illness blood and slime were observed in the stools, and the patient grew gradually worse. The next day Dr. Cholmeley was called in consultation. The intestine could then be felt low down in the rectum, and as sedatives and inflation did no good, the abdominal section was advised, and was performed about forty-eight hours after Mr. Brown first saw the child. The incision was made to the left of the mesial line. All the means were exhausted in the endeavour to reduce the invagination. The colon was much distended. The attempt at the formation of an artificial anus was done as a last resource, and it was then discovered that the volvulus had become adherent, probably throughout its whole length, to the outer layer of the intussusception—a condition which fully explained the inability to effect reduction. Vomiting set in after the operation, and death ensued in six hours. Mr. Brown thought his case taught that operation should be done very early if success were to be attained, for extensive adhesions might form in forty-eight hours.

Mr. BRYANT thought that Mr. Godlee's experience supported the practice of early operation in such cases. The fact was very important, that in all three cases the reduction of the bowel was possible, for the inability to accomplish this had been one of the main arguments against the operation. The amount of success obtained by leaving cases of intussusception to themselves was very problematical, and such fortunate results might rather be regarded as accidents. There was much analogy between the course of hernia and that of intussusception; in the early stage of each, temporary measures were more likely to do good. Taxis was of value in reducing a hernia of recent date, but later on it did harm. And much the same view might be held of insufflation in the treatment of intussusception. The diagnosis was not specially difficult, and so we need be in no straits on that account. The facility with which Mr. Godlee was able to restore the natural shape of the bowel was remarkable. The lesson contained in the third case was valuable. Mr. Brown's case pointed out a surgical difficulty. He congratulated Mr. Godlee on his courage in acting out his opinions.

Mr. HOWARD MARSH congratulated the author of the paper, and believed we might learn not only from our failures, but also from our successes. The surgery of recent times had established two facts—first, that an infant can tolerate such an operation; and secondly, that mechanical treatment of the invaginated bowel can be successful. Mr. Bryant had marked out the proper line to be taken in the inquiry, and had considered cases of intussusception as parallel to those of hernia; and with these views Mr. Marsh fully concurred. The opponents of the treatment by abdominal section may point to the few successes; but that argument was now exploded, for the chances of spontaneous recovery were even less. To his mind an important feature was the appearance of blood in the stools; for, as Dr. Fagge had pointed out, this was a sign at once that strangulation had occurred, and that the circulation was not yet arrested, so that there was no time to be lost. The period at which strangulation supervenes is variable. The danger was not so much how long the intussusception had existed, but how long the symptoms of strangulation had lasted. In support of this doctrine, he quoted a case read before the Royal Medical and Chirurgical Society, in which strangulation took place in twelve hours, but the intussusception had been diagnosed for fourteen days. He thought we ought to disregard the voice of the statistician who would say that the successful were very few compared with the unsuccessful cases. The operation should be done fearlessly and early, and the operative interference was quite parallel to the case of hernia. The severity of a procedure is no good ground for its exclusion; such a mode of thought is illogical. The method of reduction employed by Mr. Hutchinson, in which the invaginated bowel is made to *back out* rather than to be pulled out, was strongly advised.

Dr. TAYLOR narrated two successful cases treated by inflation of the bowel under the influence of chloroform. The symptoms had not been severe, and had lasted from three to five days. The ages of the patients were five and nine years. In a third case the method of insufflation caused the tumour to become much smaller and to change its site; but a relapse occurred, which was again dealt with in the same fashion with the same success. The patient died of collapse, not from the state of the bowel. At the autopsy the invagination was found to be almost entirely reducible by the injection of water. Though he had had these successful cases, he yet considered that there were others in which the abdominal operation should be undertaken as early as possible.

Dr. MAHOMED related a case of chronic intestinal obstruction which turned out to be really a case of chronic intussusception, but which during life was difficult of diagnosis; and indeed, notwithstanding the passage of a portion of intestine four to five inches long, the question of cancerous disease was not excluded. The case was mentioned because he thought that it was a subject for surgical consideration, whether total excision of the invaginated bowel might not be the proper mode of procedure in some cases even of acute intussusception.

Mr. HOWSE did not wish to throw cold water on the suggestion of the last speaker, but he felt that the serious difficulties of such an operation were not fully appraised. He had twice performed excision of the entire circumference of the bowel in the neighbourhood of the ileo-cæcal valve. In these instances reduction had been possible up to a certain point. When the diseased bowel, which was inflamed and softened, was opened, there came a rush of gas and fæculent material, which was very liable to get into the peritoneal cavity and lead to fatal peritonitis. To overcome this difficulty, a sheet of mackintosh or india-rubber, with a gap through which the affected bowel could be drawn, was recommended. The mode of union of the opposite ends of the intestine would probably be successfully dealt with by practice, but it was working in the dark; and these, with other difficulties of the nature of escape of intestine, all served to take up time, which was a bad thing for the patient and the surgeon. It was a point worthy of consideration whether some other operative proceeding might not be applicable to cases in which adhesions had formed. The case occurring in Italian surgery, where the intussuscepted bowel was amputated in the belief that it was a prolapse of the rectum, illustrated what Mr. Howse suggested.

Dr. ANDREW CLARK spoke of the frankness and modesty shown by Mr. Godlee in the paper read this evening. He thought that careful observation of the body-temperature, both before and after the ventral section, might prove of much value.

Mr. WARRINGTON HAWARD had met with great difficulty in returning the protruded intestine in an unsuccessful case. The patient was seventeen months old, and had been ill five days with agonising pain, vomiting, and constipation. Blood was passed also per rectum, and the bowel could be felt therein. Under the influence of ether, attempts at treatment by injection of air and inversion were adopted without avail. The abdominal section was resorted to, and all went well with the exception of the escape of intestine, and it was only after repeated acupunctures, and finally the use of a trocar, that the distended bowel was returned into the serous cavity, and then the peritoneum was split in many places. Death took place in a few hours, and peritonitis was found at the post-mortem examination. The volvulus was not much hurt, being only a little swollen. He thought with Mr. Marsh, that the acuteness of the symptoms was of much more service in indicating operation than the length of time the case had endured.

Mr. MARCUS BECK had operated on a child a few months old, where it was found impossible to reduce the invagination; the patient became pulseless and collapsed whilst under the operation, and then the bowel undid itself; artificial respiration was performed, and the child recovered, only to die afterwards of peritonitis.

Mr. PEPPER said that the case related by the last speaker had made a great impression on him at the time, for he was the house-surgeon, and he doubted the propriety of operating. He said Mr. Pollock had written in Holmes's "System of Surgery," actually discountenancing operative interference, because a considerable proportion of the sufferers got well. For these reasons he was sceptical whether it was wise to operate unless quite early.

Dr. BUZZARD remarked that these cases were not at all in the same category with those of ovarian disease, where there was no attempt at recovery. There is a period in the affairs of intussusception when mere invagination is present; but that does not cause obstruction,—it is only when swelling and adhesions take place that danger arises, but then that is precisely the step at which Nature is asserting her sway. There is then a natural tendency to recovery. True, the patient often dies before recovery is accomplished, or, as the French have it, "*la mort guérie.*"

Dr. GLOVER apologised for calling the attention of the Society to the notes of a case of intestinal obstruction in which belladonna had worked wonders. Opium fomentations and the like had been employed without relief. Five quarter-of-a-grain doses of the extract of belladonna were followed by a copious evacuation and the recovery of the patient.

The PRESIDENT commented on the exceedingly valuable discussion and paper. He said that the suggestion of Mr. Howse was one that deserved consideration. As to the cause of peritonitis in Mr. Godlee's second case, he felt sure that the inflammation was due to the state of the bowel. It would seem that, according to some surgeons, abdominal surgery required less antiseptic treatment. But was that the case? Although the spray was not used (the spray was certainly the least important of the antiseptic *armamentarium*), yet great care was taken to boil or carbolise sutures and the dressings and so forth.

Mr. GODLEE, in reply, agreed with the remarks of the President with regard to the cause of the peritonitis in the second case. Dr. Taylor and Mr. Pepper did not seem to distinguish, as he did, between very young children and older ones. In the former great exhaustion may be induced by inflation. The remarks that had fallen from Messrs. Bryant and Marsh had encouraged him. He regarded it as difficult to recognise the point in time at which strangulation had occurred, for pain in the belly and blood with slime in the stools were symptoms of intussusception at all times. In reducing the invagination, the outer layer of large intestine in his cases was rather unrolled than the inner layer was pulled out. The time at which reduction becomes impossible varies with different cases; *e.g.*, in Mr. Hutchinson's case it was one month. The temperatures had been taken both before and after operation; but not immediately after. Prior to operation the body-heat was normal, and nine or ten hours after it was already highly febrile. He had met with difficulty in

reducing the protruding intestines, as Mr. Haward had. From all that he had heard to-night he felt inclined to repeat the operation should the proper opportunity offer itself. Dr. Sands, of New York, in a paper on the subject, gave seven successful cases out of a total of twenty-one, the first being in the year 1751.

The PRESIDENT asked Dr. Taylor to bring his cases before a future meeting of the Society for insertion in the *Transactions*. The meeting then adjourned.

ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.—FRIDAY, DECEMBER 1.

THE President of the Section, Professor PURSER, opened the session with a brief inaugural address. In the course of his address Dr. Purser dwelt particularly on the waste of pathological material which takes place in many of the hospitals of Dublin, and on the disadvantages that attend the making of post-mortem examinations by gentlemen who have received no training in pathological anatomy. He suggested that this difficulty might be obviated by the appointment to each hospital, or group of hospitals, of a pathologist who had received some instruction in pathological anatomy and *technique*. His business should be to attend when required to make autopsies, and to dictate the notes to be taken there and then. Dr. Purser laid special stress on the fact that, in spite of its great development as a centre of medical teaching, up to the present time neither university, nor college, nor private school in Dublin, had supplied any systematic course of instruction in pathology. He further urged the necessity of endeavouring to impress on the examining bodies a sense of the great importance attaching to a knowledge of pathology.

Mr. ARTHUR BENSON showed a girl, aged fifteen, suffering from Primary Lupus of the Conjunctiva.

Mr. WILLIAM THOMSON exhibited a patient, aged twenty-six, with well-marked Hodgkin's Disease.

Dr. FINNY exhibited the viscera of a patient who died of Hodgkin's Disease. The patient was aged seventeen, the son of healthy parents; two years ago he exhibited enlargement of the lymphatic glands in the neck. The cervical, mediastinal, bronchial, and retro-peritoneal glands were enlarged, and adenoid nodules occurred in the spleen. The blood at no time exhibited an increase of white corpuscles.

Mr. P. S. ABRAHAM exhibited preparations of the Bacillus of Tubercle according to Dr. Gibbes's method.

Dr. A. W. FOOT exhibited photographs of Pachydermatocele, taken from a woman, married, aged thirty, never out of Ireland. The disease had existed nine years; origin attributed to a severe wetting, followed by irritation of the inguinal glands; nates and genital organs unaffected. Died four days after the removal of the large mass springing from the posterior femoral region. Also a drawing of Ichthyosis Vera, from a peasant boy aged eleven, affected from early life, but not born so; and a drawing of Diffuse Melanonata from a washerwoman aged sixty-seven, whose right eye was excised for melanosis. Five years afterwards she was in the condition represented in the drawing, studded all over with melanotic tumours of various sizes.

Dr. E. H. BENNETT showed a specimen of Fractured Patella completely united by bone. The fractures of the patella were in the main vertical in direction, but at both the upper and lower parts of the bone they passed laterally through its structure. There was a scar in the integuments covering the centre of the bone, which was adherent to the anterior surface of the lines of fracture, suggesting (in the absence of any history) that the fracture was the result of direct injury, and probably compound. He also showed a fracture of the left patella of a man, united by fibrous tissue.

Mr. P. S. ABRAHAM showed a specimen of Double Fracture of the Lower Jaw. A comminuted fracture existed in the region of the right mental foramen, its principal line passing down from between the bicuspids to the anterior margin of the foramen, at the base of which it bifurcated. A triangular piece, with a base 1·5 centimetres, was thus separated off from the lower margin of the jaw, and chiefly at the expense of the inner surface of the bone. The obliquity of the plane of the fracture was for the most part from behind, forwards, and inwards. No teeth were displaced or loosened, and there was no evidence of the fracture having been compound. A second fracture was situated on the left side of the jaw, extending from behind the last molar, of which the alveolar socket was peculiarly expanded down to the angle. This fracture was compound, communicating with the mouth. The probability was that the fracture of the left side of the body was produced by a direct blow or kick, while that of the left angle was due to indirect violence. *History* (by Dr. Brereton, Oughterard).—The subject was a man, aged thirty-six. From evidence given before the coroner, the fracture was inferred to be the result of a kick while the man lay on the ground. On the fourth day after the receipt of the injury he got out of bed, walked from his house a short distance, and on returning fell dead at his own door. The post-mortem examination showed that the fracture at the angle was compound, communicating with the mouth, and that the abscess had formed in connexion with it. This abscess was traced from the parotid region down along the carotid into the pericardium. The other fracture was simple, but comminuted, as seen in the specimen.

Mr. CROLY showed a patient whose Elbow-joint had been Excised for Disease, said to have followed acute rheumatism.

Mr. WHEELER and Mr. COPPINGER showed Loose Cartilages from the Knee-joint.

Mr. STORY showed three specimens of Glioma Retinæ.

Mr. CROLY exhibited Muco-gelatinous Nasal Polypi removed from a man aged fifty-five; and also a Fatty Tumour removed from the left shoulder of a woman, and weighing ten pounds and a half.

Mr. ANTHONY H. CORLEY showed a peculiar Vesical Calculus, of irregularly ovoid shape, with numerous bosses projecting; its longest diameter was one inch and a half, and its weight 420 grains.

Mr. J. K. BARTON read a case of Volvulus, and remarked that of all the causes of intestinal obstruction, twisting of the gut, or volvulus, was the rarest. It usually took place in the large intestine, and most frequently in the sigmoid flexure. In the following case the cæcum appeared to have been the part which was displaced, and the ascending colon was in consequence twisted and the gut distended. The patient, aged fifty-eight, a charwoman, while cleaning out a church, was suddenly seized with severe pain in the abdomen. She was admitted into the Adelaide Hospital on October 3. The abdomen was then found greatly distended, and unequivocal signs of peritonitis existed. No action of the bowels was procured, but the gaseous distension of the abdomen was so great as to require the operation of puncture twice. Patient died on the 8th, five days after admission, and eight after the sudden attack of pain. The autopsy revealed enormous distension of the cæcum and small intestine, with a rupture posteriorly of the cæcum with general peritonitis. The ascending colon was twisted so as completely to exclude the gut, and the large intestine below this point was small and empty. The cæcum must have accomplished a complete revolution on itself, as the vermiform appendix was behind, but distended to the size of the index finger.

Drs. Myles, Foot, Finny, Thornley Stoker, Corley, Warren, H. Kennedy, and Abraham took part in the discussion which followed.

Dr. T. EVELYN LITTLE read a paper on Aneurism of the Internal Iliac Artery, and exhibited a specimen of the disease.

Mr. WHEELER read a paper on Nasal Polypus, illustrated by the exhibition of six specimens of mucous nasal polypi, one fibrous naso-pharyngeal polypus, and one mucous naso-pharyngeal polypus, removed from three patients.

Drs. T. Stoker, Corley, and Kendal Franks joined in the discussion, and Mr. Wheeler replied.

SURGICAL SECTION.—FRIDAY, DECEMBER 8.

The PRESIDENT, in opening the proceedings, remarked that the old Surgical Society of Ireland, which for over fifty years held its sessions in that College, had voluntarily laid aside its separate individual existence in order to be foremost in supporting the new Academy as its Surgical Section. While the name of the Society was changed, it would, in all important and useful respects, remain the same as before, the organisation of which it formed part giving complete-

ness to its work. In effecting the transformation, little change had been made, the Council of the Society being the Council of the Section. A happy selection had been made as Secretary in the person of a gentleman whose interest in the Surgical Society was proved by his many contributions to it. For himself, he was President in virtue of his office as President of the College. Reviewing the history of the Surgical Society on the occasion of the new departure was suggestive of a funeral oration rather than a triumphant wedding song, which was more appropriate to its union with the Medical, Pathological, and Surgical Societies; and therefore in his inaugural address he preferred instituting a comparison between the system of clinical surgery pursued here and that which obtained in Paris, Berlin, and Vienna. Dublin stood second to no other city in the thoroughness with which the students were trained in the diagnosis and treatment of disease. At the same time, little was done to clear up those disputed surgical problems which could be determined only by the powerful logic of accurate statistics. The conditions of the Dublin hospital system favoured completeness of individual work and good clinical teaching, while the results which might be gained from the variety, value, and number of all the cases put together were, for want of unity, lost. This want could be overcome by the new Academy. In Paris the classes went round with the surgeons, as in Dublin, and, in addition, the interns there—corresponding to the residents here—took private classes, with permission to examine cases, of which there were a great many to illustrate each subject. In Berlin, special clinical teaching could be had in almost any branch of surgery, and therefore favoured advance in special directions, though it might well be doubted if the system of speciality produced the best-informed practical surgeon, and gave to the State and Army men able to use skilfully all the resources of their art. In Vienna the same system was carried to a very high degree of perfection. The advantages of the continental system, with their vast hospitals, were obvious in stimulating original investigation and facilitating the collection of reliable statistics, and so arriving at sound conclusions as to the result of different modes of treatment or operation. In Dublin there were, in proportion to the population, quite as many beds available for clinical instruction as in Paris, Berlin, or Vienna. This resulted in thorough and practical instruction, but the experience of each surgeon was limited without co-operation, and thus the Dublin School of Surgery was prevented taking its place in the van of progress. By the new Academy this defect could be met. Here as in a common centre might be lodged the records of the cases in all the hospitals, each case under its proper heading, and thus would be formed a most valuable collection of reliable statistics. He hoped the Council would adopt his view and invite contributions.

The pressure upon our space prevents us from reporting the papers and discussions upon them.

PRESIDENT GARFIELD'S MEDICAL ATTENDANTS.—The discharge of the bill for attendance on the late President is, according to the *New York Med. Record*, November 11, still further complicated by a claim of Mrs. Edson against his estate, of $10,000 for "skilful attendance in her professional capacity as a physician." It will therefore have to be considered as coming within the limit of $35,000 allowed to the physicians under Act of Congress.

DIPHTHERIA IN ST. PETERSBURG.—Diphtheria has become of late much more prevalent in St. Petersburg. The deaths until September averaged (in a population of 929,525) twenty per week, but increased in that week to thirty, and in the week September 18 to 26 to forty-five per week; but in the week October 10 to 16 they decreased again to thirty-one.—*St. Petersburg Med. Woch.*, November 4.

A DIFFICULT POINT EVADED.—A story comes from Chicago of an accoucheur who attended a Cyprian and delivered her of a fine boy. The blank form for a return to the Board of Registration requires the physician to give the name of the father of the child. This obligation caused the practitioner no little solicitude, but he finally acquitted himself by writing on the certificate, "*E pluribus unum.*"—*Boston Med. Journal*, October 19.

OBITUARY.

SIR THOMAS WATSON, BART., M.D., F.R.S., D.C.L., ETC., PHYSICIAN-IN-ORDINARY TO THE QUEEN.

ON Monday last, the 11th inst., after an illness of about seven weeks, Sir Thomas Watson, the most loved and most honoured of modern physicians, sank to his rest, at the patriarchal age of ninety. Sir Thomas Watson was descended from a family long settled in Northumberland, but was born on March 7, 1792, at Kentisbeare, a village near Cullompton, in Devonshire, where his father, Mr. Joseph Watson, was then, for a time, residing. He received his early education at the Grammar School of Bury St. Edmunds, and in 1811 was admitted a pensioner at St. John's College, Cambridge, of which College an uncle on his mother's side, the Rev. Thomas Catton, was at that time a Fellow. He took his B.A. degree in January, 1815, passing out of the schools as tenth Wrangler; in 1816 was elected a Fellow of his College; proceeded M.A. in 1818; and in the following year, when twenty-seven years of age, commenced the study of medicine at St. Bartholomew's Hospital, where he had the advantages of the teaching and the friendship of Abernethy. He passed one session of medical study at the University of Edinburgh; took a licence *ad practicandum* at Cambridge in 1822; served the office of Proctor of the University in 1823; and graduated as M.D. in 1825. Soon after this, Sir Thomas, then, of course, Dr. Watson, settled in London as a physician, taking up his residence in Henrietta-street, Cavendish-square, and in that street he resided for the rest of his life. In 1826 he was elected a Fellow of the Royal College of Physicians of London, having passed through the grades of inceptor-candidate in 1824, and candidate in 1825. The year after Sir Thomas Watson had been admitted to the Fellowship of the College, he was appointed Physician to the Middlesex Hospital. In the arrangements for establishing the School of Medicine in University College he was appointed Professor of Clinical Medicine in the College, but resigned this chair not long afterwards, and accepted the Professorship of Forensic Medicine in King's College. In 1836 he succeeded the late Dr. Francis Hawkins as Professor of the Principles and Practice of Medicine in the College; and in that capacity he first delivered, in 1836-37, the lectures which at once established his reputation as a learned, wise, and sagacious physician, and which hold a high place among the medical classics. The Lectures were first published in the *Medical Gazette*; in 1844 they were published in a collected form in two volumes, and a second edition was called for in the following year. In all, five large editions of the Lectures have appeared, the fifth having been published in 1871—facts showing of themselves the very high estimation in which the work has been held by students and practitioners.

In the year 1840, when King's College Hospital was established, Sir Thomas Watson declined to leave the Middlesex Hospital, and consequently resigned his chair in King's College; and in 1843 the demands of private practice obliged him to resign his post of Physician to the Middlesex Hospital. In 1859 he was appointed Physician Extraordinary to the Queen, and as such was called with others into attendance on the Prince in his last illness. He was created a Baronet in 1866; and in 1870 he was appointed one of Her Majesty's Physicians-in-Ordinary. He served the Royal College of Physicians as Censor, and as Consiliarius for many years; delivered the Gulstonian Lectures in 1827, the Lumleian Lectures in 1830 and 1831; and was Lecturer on Materia Medica at the College in 1833, 1834, and 1835. In 1858 he was elected to the office of Representative of the College in the General Council of Medical Education and Registration on the constitution of that body in 1858; but resigned that office in 1860, and, finally, he was elected President of the College in 1862, and held that high office for five years.

It would be easy to lengthen out this list of the services rendered by Sir Thomas Watson to the profession and the public, and of the various honours by which those services and his eminence in the profession were acknowledged. He was President of the Pathological Society in 1857-58; and he was the first President of the Clinical Society; honorary degrees and other distinctions were conferred upon him by universities and colleges; and his portrait, painted by Richmond at the request of a number of the Fellows of the Royal

College of Physicians, graces the walls of the College. But these facts, while they prove that Sir Thomas Watson was eminently a man whom men loved to honour, will not tell why or how it was that the physician and the man won so large a place in the hearts and minds of his professional brethren and his patients, and so high a place in the regard and esteem of the public. This necessary clothing with life the framework we have given above has happily been done for us out of a much fuller knowledge than we possess, and with a skill to which we lay no pretence; and we are very glad to add to our sketch of Sir Thomas Watson's life and work Dr. West's loving word-picture of the man, contained in the following letter:—

Sir,—It was my privilege, seven years ago, to pay the tribute of affectionate respect to the memory of my old friend and master, Dr. Latham. You are good enough to allow me now, on my own behalf, and on behalf of my contemporaries and my juniors—for few indeed, if any, remain of those who were of his own day—to record the feelings with which we all cherish the remembrance of Sir Thomas Watson, and to my best to tell in a few words the life-history of a great, good man.

"Serus in cœlum redeas" was the old Roman's prayer for his patron; and this, which was the unspoken wish of all who knew him, was abundantly fulfilled in the case of Sir Thomas Watson, who, born on March 7, 1792, lived in honoured age till close on midnight, December 11, 1882, when, as old inscriptions have it, "In Domino obdormivit"; and painlessly, peacefully ended a most excellent life.

It is hardly worth while to dwell long on details which tell almost as little of what a man's life has been as do the milestones on the road of the nature of the country through which the traveller passes. It is enough to say that he received his early education at the Grammar School of Bury St. Edmunds; that he afterwards entered at Cambridge, where he took his degree of B.A., being tenth Wrangler in 1815; in the following year was elected a Fellow of St. John's College; took his degree of M.D. in 1825; and was admitted a Fellow of the College of Physicians of London in 1826. He became Physician to the Middlesex Hospital in 1827; and during the five years from 1836 to 1840 occupied the chair of Medicine at King's College, where he gave those lectures the reputation of which will outlast all changes of opinion and of practice. In 1859 he was appointed Physician to the Queen, was created a baronet in 1866, and held the distinguished position of President of the College of Physicians from 1862 to 1867.

These facts and figures show that Sir Thomas Watson was an eminently successful man, and that he attained the highest honours open to members of his profession; but they furnish no adequate explanation of why, living, he was so universally respected, why, dead, his name will be held in such lasting remembrance. He laid no claim to genius; he made no great discovery. Though a scholar he was not more learned, though a good speaker he was not more eloquent, than many of his cotemporaries whose names are now well-nigh forgotten; and yet he was by universal consent regarded as the completest illustration of the highest type of the physician. His moral as well as his intellectual qualities had much to do with the estimate which all formed of his character. His faculties were remarkably well balanced, his mind was eminently fair. He had that gift—the attribute and the reward of truth—the power intuitively to detect all specious error. Hence, while the added experience of each year gave increased value to his teaching and his writings, it brought but little for him to unlearn or to unsay. He took a wide view of every question; and as the traveller who has a long journey before him must not stop to pluck the flowers on every bank, or to examine the plumage of the singing birds, so he wasted no thought on idle speculation, nor turned aside to amuse himself with some curious detail or some collateral inquiry. He availed himself of knowledge from all sources, and for all purposes except vain display; he used theories to illustrate his facts and to point their meaning, but no further, conscious that, with imperfect knowledge, it would be idle to attempt to build up correct theory—a stable building can never be raised on an unstable foundation. Take him in his teaching, all in all, he seems to me, more than anyone I ever knew, to be the undoubted heir of England's greatest practical physician—Thomas Sydenham.

Some one—pleased, I suppose, with the alliteration—has called Sir Thomas Watson the "Macaulay of Medicine." The designation seems to me singularly inappropriate. I find little resemblance between the ornate style of the great historian and essayist, and the transparent simplicity of that of Sir Thomas Watson. I see a closer resemblance between his writings and those of Cardinal Newman. There is the same perfect command of language, with the same absence of redundancy, and the same, or at least a similar power of illustration. His subjects did not call for the wonderful dialectic resources of his cotemporary, but wherever clear description is needed his pencil never fails—only you recognise the accuracy of the portrait by the perfection of the drawing rather than by the vividness of the colouring. In the skilful handling of the pen his power was not lessened by age, as his latest essays, some of which were written when on the verge of his ninetieth year, sufficiently attest.(a)

I did not know him in the lecture-room or in the wards of the hospital, but I often met him in private practice. The courteous consideration with which he treated his juniors, the pains he took in investigating the case, the endeavour to conceal an error without sacrificing the interests of the patient, were qualities which no younger man who met him in consultation could ever forget. And may I—now no longer young, and far away from the struggle of the great city—refer, without offence, to a mistake which, it seems to me, is sometimes made, almost or quite unwittingly, by the consultant? He assumes, or acts as though he assumes, that he is called in not simply to aid his professional brother and to help him by his counsels, but as though his function were to discover some mistake or to detect some oversight. The presumption, on the contrary, almost always is in favour of the correctness of the diagnosis, and the suitability of the treatment of the practitioner who is in charge of the case, and with whom the consultant is associated for his benefit and for that of the patient. Sir Thomas Watson always took this view of his position, and, consequently, I never heard of anyone who was not glad to profit by his experience and to be strengthened by his assistance.

I saw much of Sir Thomas Watson during the first two years of my Censorship at the College of Physicians. Nothing could be more admirable than the way in which he fulfilled the duties of his very difficult office. He was always courteous, always dignified; and he maintained, with no apparent effort, among the Fellows at the meetings of the College that perfect order, that mutual high-bred courtesy, which now and then has since his time been a little wanting. At all the meetings of the Censors' Board, or of the Council, or of committees, he was always most punctual, most business-like, most gracious. On all public occasions he well supported the honour of the College; and when he had to speak in public his speeches were models of English, in perfect taste, and always adapted to the occasion, as everyone will testify who had the pleasure of being present at the College banquet at which he presided in 1863. They were prepared with great care; but so well prepared, so excellently delivered, that, to all who heard them, they seemed happy improvisations. So long as they who knew him survive, no President of the College will escape the disadvantage of the comparison.

His portrait in the College, by Richmond, renders admirably his features and expression. He was not handsome, but his fine forehead, from which he early lost his hair, his look of keen intelligence, and the great kindliness of his expression, made his face one to look upon with pleasure and to be very glad to see again.

We have in a journal such as this to do only with a man's public character. But, noble as that may be, it gains an added lustre if, in withdrawing for a moment the curtain which veils the sanctities of private life, one sees only the same virtues which illustrated his public position; if one knows, as I do, how good he was, how kind, how loving, how beloved.

I have thought how best in one short sentence to write his epitaph. I can find no fitter words than those written now well-nigh three thousand years ago—"Mark the perfect man, and behold the upright, for the end of that man is peace."

I am, &c.,

Nice, December, 1882. CHARLES WEST.

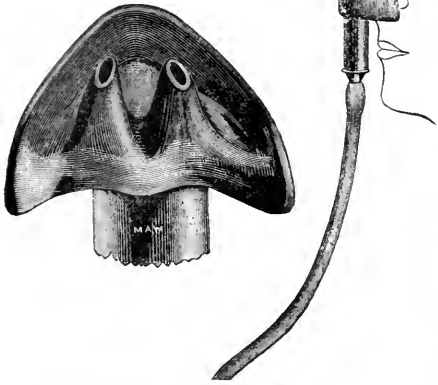
(a) Three of these essays—on Zymotic Diseases, on Hydrophobia, and on Small-pox and Vaccination—were republished in 1879, in a small volume, by Mr. T. Kegan Paul.

We will only add to the foregoing that Sir Thomas Watson, who had retired from the active practice of his profession for some years, was suddenly affected by a marked, but slight, weakness of the right side on October 22, while he was staying with his son at Reigate; and that he was obliged, a few days later, on account of increasing general weakness, to keep his bed. He was attended, through the few weeks of illness that followed, with the greatest attention and skill by his friend Dr. Walters, of Reigate, and was seen also by Dr. George Johnson and by Mr. Lister. He was happily without suffering or marked discomfort throughout, a short period only excepted; and he sank quietly and painlessly to his rest on the 11th inst. Sir Thomas married in 1825, but lost his wife in 1830. He leaves one son and one daughter.

NEW INVENTIONS AND IMPROVEMENTS.

DR. WHISTLER'S NASAL INHALING TUBE.

This instrument consists of a mould of the tip and alæ of the nose, the base or floor of which fits accurately over the entrance to the nostrils. Upon this floor are two perforated conical projections for insertion into the nostrils, and these communicate, through a chamber below, by means of an india-rubber tube with an inhaler. The advantages of this method of inhalation are—first, that medicated vapours may be thoroughly applied to the whole cavity of the nose and upper portion of the pharynx, as well as to the lower portion of the respiratory tract; secondly, that by this means the normal process of respiration is insured, viz., inspiration through the nose instead of through the mouth, and consequently the act is more complete and less fatiguing to the patient; also, the enforced act of breathing *in* through the nose and *out* through the mouth is an aid in overcoming the habit of oral breathing, to which most patients suffering from nasal catarrh are addicted.



The application of medicated vapours to the nasal tract has been carried out as a separate method of inhalation, and in a very limited manner. Sometimes this is effected by inhaling vapour through the mouth, and endeavouring to blow it through the nose, the perfect accomplishment of which depends upon the skill of the individual. More often the patient breathes steam from an inhaler through one nostril, while the opposite one is closed by the finger, through an olive-shaped nozzle, made generally of soft rubber which is so compressible that it is apt to become blocked up. Comparatively little vapour passes into the nose by this means, and still less beyond, while the patient in stooping over the inhaling apparatus contracts the chest and approximates the process to that of mere smelling instead of full inspiration.

The principle intended to be carried out by means of the instrument before us is, then, to do away with this division of nasal and oral breathing into two separate acts, and substitute normal deep inspiration through its proper channel.

The instrument, which has been made from Dr. Whistler's design by Messrs. Maw, Son, and Thompson, is of vulcanite. It is light, smooth, and unirritating, and is easily cleaned. The india-rubber communicating tube, which is sufficiently long to allow of proper expansion of the chest, may be adapted to various forms of inhalers.

MEDICAL NEWS.

University of London.—The following are the names of the candidates who passed the recent Honours Examinations:—

M.B. Examination.

Medicine.

First Class.—David Alexander King (Scholarship and Gold Medal), St. Bartholomew's Hospital; Leonard Charles Wooldridge, B.Sc. (Gold Medal), Guy's Hospital; Thomas Harris, (a) Owens College; David Collingwood, University College; Edwin Leonard Adeney, Guy's Hospital; William Camac Wilkinson, B.A. Sydney, University College; Richard Honeyburne, Liverpool Royal Infirmary and University College; Malcolm Webb, Owens College.

Second Class.—Dudley Wilmot Buxton, University College, and Launston Elgie Shaw, Guy's Hospital, *equal*; William Ebsett Fielden, Guy's Hospital, and Mary Ann Dacomb Scharlieb, Madras Medical College and Royal Free Hospital, *equal*.

Third Class.—Reginald Pratt, University College; John Williams Batterham, Westminster Hospital, Edward Alfred Dingley, University College, and Elith Shove, London School of Medicine for Women, *equal*.

Obstetric Medicine.

First Class.—Mary Ann Dacomb Scharlieb (Scholarship and Gold Medal, Madras Medical College and Royal Free Hospital; David Alexander King (Gold Medal), St. Bartholomew's Hospital; Richard Honeyburne, Liverpool Royal Infirmary and University College.

Second Class.—Edith Shove, London School of Medicine for Women; Edward Alfred Dingley, University College; Thos. Harris, Owens College.

Forensic Medicine.

First Class.—William Camac Wilkinson (Scholarship and Gold Medal), University College; Malcolm Webb (Gold Medal), Owens College; William Thomas Maddison, King's College; Leonard Charles Wooldridge, Guy's Hospital; Oswald James Currie, Guy's Hospital; Mary Ann Dacomb Scharlieb, Madras Medical College and Royal Free Hospital.

Second Class.—Edward Alfred Dingley, University College; John Williams Batterham, Westminster Hospital; Edwin Leonard Adeney, Guy's Hospital; David Alexander King, St. Bartholomew's Hospital; John Hinks Vincent, Queen's College, Birmingham, and University College.

Third Class.—Richard Honeyburne, Liverpool Royal Infirmary and University College; David Collingwood, University College.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 4, 5, 6, and 7, the following candidates were successful:—

For the Licence to practise Medicine—

Atkins, George Purcell, Cork-street Hospital, Dublin.
Barrington, John Leslie, Dublin.
Donnellan, Patrick, Castlerea.
Fisher, George Henry Johnson, Rathmines, Dublin.
Greene, Arthur Joseph, Dublin.
Gubbins, Robert Joseph, Kilfinane, co. Limerick.
Hatch, Richard, Dublin.
Kerr, James Joseph, Meadow Bank, Sligo.
Maguire, Patrick, Arney, co. Fermanagh.
Mullan, Edward Duddy, Londonderry.
Nolan, Michael James, Limerick.
Pollock, Rowland, Navan, co. Meath.
Vernon, Edward, M.R.C.S. Eng., 1853, Kingston, Yeovil, Somersetshire.

For the Licence to practise Midwifery—

Atkins, George Purcell.
Austin, John J., M.D. Roy. Univ. Ire., Ahoghill.
Donnellan, Patrick
Fisher, George Henry Johnson.
Greene, Arthur Joseph
Gubbins, Robert Joseph.
Hatch, Richard.
Hawthorne, Alfred Wynter, M.D. Roy. Univ. Ire., Dromore, county Down.
Kerr, James Joseph.
Maguire, Patrick
Mullan, Edward Duddy.
Nolan, Michael James.
Pollock, Rowland.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership pursuant to the provisions of the Supplemental Charter of 1878, have been duly enrolled Members of the College, viz.:—

Mullen, John Joseph, 1861, Dundrum, co. Dublin.
Tyner, George St. George, 1865, Downpatrick.
Tobin, William, 1863, Halifax, Nova Scotia.
Power, John Byrne, 1871, Kingstown.
Geoghegan, Charles Edward, 1876, Surgeon R.N.

The numerals indicate the year in which the Licence to practise Medicine was obtained.

(a) Obtained the number of marks qualifying for a gold medal.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having undergone the necessary examinations for the Fellowship at the half-yearly meetings of the Court of Examiners on the 23rd, 24th, and 25th ult., were reported to have acquitted themselves to the satisfaction of the Court, and at a meeting of the Council held on the 14th inst. were admitted Fellows of the College, viz.:—

Buck, W. Elgar, M.A. and M.D. Cantab., Leicester, diploma of membership dated November 14, 1872, student of St. Bartholomew's Hospital.
Dingley, Allen, L.R.C.P. Lond., Argyle-square, W.C., July 30, 1878, of St. Bartholomew's Hospital.
Gunn, R. Marcus, M.B. Edin., Park-street, W., July 21, 1873, of the London Hospital.
Hardie, James, M.D. Edin., Manchester, of the Manchester School.
Lane, J. Ernest, Norfolk-square, W., May 18, 1880, of St. Mary's Hospital.
Prowse, A. Bancks, M.D. Lond., Cambridge, July 25, 1877, of St. Mary's Hospital.
Smith, T. F. Hugh, L.S.A., Wimpole-street, W., August 1, 1877, of King's College Hospital.
Walters, F. Ruinenacht, M.B. Lond., Croydon, April 20, 1880, of St. Thomas's Hospital.

The gentleman placed fourth in the above list is not a Member of the College; and the name of one other gentleman who passed cannot be published until he is admitted at the next meeting of the Court of Examiners in January. Seven candidates out of the sixteen examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months. With this meeting all the examinations for the present year were brought to a close. The total number of Fellows of the College by examination now amounts to 613.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 7:—

Culhane, Francis John Fitzgerald, St. Helen's-road, Hastings.
Dabbs, Charles John, Newport, Isle of Wight.
Hewitt, Frederick William, Grove-place, Pond-street, S.W.
Maddison, Charles John, William-street, Regent's-park, N.W.
Sparkes, Claud Stephen, St. Catherine's, Guildford.
Stephens, Samuel, Camborne, Cornwall.

The following gentleman also on the same day passed his Primary Professional Examination:—

Anwyl, James Norman, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office as early as possible, information as to all new Appointments that take place.

BAKER, HENRY F., F.R.C.S. Ed.—Surgeon to the Cripples' Nursery, Parkplace, Clarence-gate.

BIRTHS.

CAMERON.—On December 10, at Lochiel, Harlesden, North Wales, the wife of Charles H. H. Cameron, L.R.C.P., M.R.C.S., prematurely, of a son, stillborn.

DAVISON.—On December 12, at Langton House, Battle, Sussex, the wife of Rashell Davison, M.D., of twins (boy and girl).

HUTCHINGS.—On December 7, at Southborough, Tunbridge Wells, the wife of Edward J. Hutchings, M.R.C.S., of a son.

LAMB.—On December 8, at Yew-tree Cottage, Lewisham, the wife of William Lamb, M.D., of a son.

RAYNER.—On December 12, at the Asylum, Hanwell, the wife of H. Rayner, M.D., of a daughter.

SCOTT.—On December 6, at Shirley Lodge, Shirley, Hants, the wife of Surgeon-Major R. R. Scott (retired), of a son.

WALLIS.—On December 10, at 22, Priory-place, Doncaster, the wife of Ferdinand Wallis, M.R.C.S., of a son.

MARRIAGES.

ABERCROMBIE—ROBERTSON.—On November 11, at Bombay, Alexander, eldest son of John Abercrombie, M.D., of Cheltenham, to Emilie C. de Laurentsoi, youngest daughter of the late Colonel George H. Robertson, C.B., A.D.C. to the Queen, 25th Bombay N.I.

ANDREW—MARTIN.—On October 28, at Christ Church, Mussoorie, George Andrew, M.B., Surgeon-Major A.M.D., to Milly, widow of the late Curtiss Martin, Brigade-Surgeon A.M.D.

DRURY—YOUNG.—On December 9, at Bournemouth, William Vallancey Drury, M.D., of Lingmoor, Bournemouth, to Emelyn, eldest daughter of Edward Young, Esq., of Thornleigh, Bournemouth, and Birchfield, Lancashire.

FRAMPTON—TURNER.—On December 7, at Paddington, Tom Henry Frampton, M.R.C.S., elder son of Thomas Frampton, M.R.C.S., L.R.C.P., to Kate, third daughter of the late J. Turner, Esq., of 60, Cleveland-square, Hyde-park.

MACGEAGH—DAVIES.—On December 6, at Baltimore, U.S.A., T. E. Foster MacGeagh, M.D., etc., eldest son of Benjamin Scott Foster MacGeagh, Esq., of Coombe House, Coombe, Surrey, etc., to Fanny, daughter of the late S. D. Davies, Esq., of Baltimore, U.S.A.

MARSDEN—WEYMOUTH.—On December 11, at Rangoon, British Burmah, James Cort Marsden, M.R.C.S., L.S.A., Surgeon, Indian Medical Service, to Eleanor Rosa, second daughter of Richard Francis Weymouth, D.Lit., Head Master of Mill Hill School.

SWALE—PARISH.—On December 5, at Guildford, Harold Swale, M.B., of Ingfield Hall, Settle, Yorkshire, and of Tavistock, Devon, to Alice, daughter of Captain Parish, R.N.R., of Guildford.

TUKE—WYLDE.—On December 12, at Chiswick, Charles Molesworth Tuke, M.R.C.S., third son of Dr. Tuke, of The Manor House, Chiswick, and Albemarle-street, London, to Mary Ella, second daughter of William H. Wylde, Esq., C.M.G., of Westfield, Putney, Lieut.-Colonel 2nd South Middlesex Volunteers.

WELLS—WILLETT.—On December 9, at West Brighton, Charles Wells, M.D., of 13, College-crescent, Belsize-park, N.W., to Anne Maria, second daughter of the late R. B. Willett, Esq., of 20, St. John's-terrace, West Brighton.

DEATHS.

ALFORD, RICHARD FRANCIS, son of Richard Alford, M.R.C.S., of Weston-super-Mare, at 140, Harley-street, on December 9, aged 33.

BAYES, WILLIAM, M.D., at 88, Lansdowne-place, Brighton, on December 8 aged 58.

BENSON, ERNEST WALTER, B.A. Cantab., L.S.A., M.R.C.S., at Bath, on December 10.

GIBBONS, JOHN, Surgeon-General, C.B. (retired list), at 8, Waterloo-road, Dublin, on December 6.

KEATES, THOMAS WILLIAM BOTTOMLEY, infant son of William Cooper Keates, M.R.C.S., L.R.C.P., at 2, Tredegar-villas, East Dulwich-road, on December 11, aged eight months.

MUGLISTON, EMMA, wife of G. T. W. Mugliston, M.D., at Poling, near Arundel, on December 8.

SAVORY, ARTHUR HENRY, L.R.C.P., M.R.C.S., at Wendover, Bucks, on December 5, aged 34.

WATSON, Sir THOMAS, Bart., M.D., at Reigate Lodge, Surrey, on December 11, aged 90.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BURY DISPENSARY HOSPITAL.—House-Surgeon. Salary £120 per annum, with furnished apartments, board, fuel, and lighting. Candidates must be registered under the Medical Act, 1858, in both medicine and surgery, and be unmarried. Applications, with testimonials as to qualifications and character, to be sent to the Hon. Sec., J. W. Kenyon, Market-street, Bury, on or before December 18.

CUMBERLAND INFIRMARY.—Assistant House-Surgeon. Salary £20 per annum, with board, lodging, and washing. Applications, with testimonials, to be sent to the Committee not later than December 26.

MONMOUTH UNION.—Medical Officer and Public Vaccinator. (*For particulars see Advertisement.*)

NATIONAL DENTAL HOSPITAL, 149, GREAT PORTLAND-STREET, W.—Dental Surgeon and an Assistant Dental Surgeon. Candidates must possess an L.D.S. degree. Applications, with testimonials, to be sent to Arthur G. Klugh, Secretary, on or before December 22.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD, W.C.—Junior Resident Medical Officer. (*For particulars see Advertisement.*)

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Salary £70 per annum, with board, lodging, and washing. Candidates must possess a registered surgical and medical qualification. Applications, with qualifications and testimonials, to be sent to the Secretary on or before December 20. The election will take place on December 28.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Cheadle Union.—Mr. H. S. Webb has resigned the Ipstones District: area 15,010; population 3588; salary £35 per annum.

Ecclesall Bierlow Union.—The Fifth District is vacant by the death of Mr. George Booker: area 10,315; population 5400; salary £37 10s. per annum.

Fylde Union.—Mr. Luke Fisher has resigned the Lytham District: area 10,224; population 6073; salary £30 per annum.

Hartlepool Union.—Mr. E. B. Pellew has resigned the Western District: area 27,330; population 2760; salary £22 per annum.

Scarborough Union.—Dr. Michael Collins has resigned the Workhouse: salary £40 per annum.

Teesdale Union.—Mr. George Lowe has resigned the Middleton District: area 58,692; population 4281; salary £25 per annum.

APPOINTMENTS.

Haltwhistle Union.—Edward B. Pellew, M.R.C.S. Eng., L.R.C.P. Edin., to the Eastern District and the Workhouse.

Lincoln Union.—Cyril J. Williams, L.R.C.S., L.R.C.P. Edin., to the Fifth District.

Lutterworth Union.—Richard Steele, M.R.C.S. Eng., L.R.C.P. Edin., to the combined Third and Fourth Districts.

Tamworth Union.—Alex. Davidson, L.F.P. & S. Glasg., to the Anstey District.

PURGATIVE LINIMENTS.—When medicines cannot be administered by the mouth the following may be used:—Tincture of colocynth one part, castor oil two parts. The tincture is to be prepared from stronger alcohol and one-tenth of its weight of colocynth deprived of seeds. A teaspoonful of the liniment is to be rubbed into the abdomen night and morning.—*New York Med. Record*, November 10.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 9, 1882.

BIRTHS.

Births of Boys, 1319; Girls, 1210; Total, 2520.
Corrected weekly average in the 10 years 1872-81, 2612·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	818	851	1669
Weekly average of the ten years 1872-81, corrected to increased population ...	910·5	882·1	1792·6
Deaths of people aged 80 and upwards ...	...	...	63

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	4	14	5	4	...	6	...	4
North ...	905947	3	19	3	3	6	3	10	1	4
Central ...	2s2238	...	15	2	2	3	...	2	...	...
East	692738	...	6	20	3	1	...	5	1	4
South	1265927	2	23	6	7	10	...	9	...	5
Total	3816483	5	67	45	20	24	3	32	2	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·108 in
Mean temperature	36·5°
Highest point of thermometer	51·2°
Lowest point of thermometer	25·5°
Mean dew-point temperature	31·5°
General direction of wind	Variable.
Whole amount of rain in the week	0·49 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec. 9, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Birth Registered during the week ending Dec. 9.	Deaths Registered during the week ending Dec. 9.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Temperature of Air (Fahr.) Lowest during the Week.	Temperature of Air (Fahr.) Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	Rain Fall. In Centimetres.
London	3893272	2520	1689	22·4	51·2	25·5	36·5	2·50	0·49	1·24
Brighton	109595	69	37	17·6	49·8	26·7	35·5	1·95	0·03	1·09
Portsmouth ...	129916	76	53	21·3	...	...	...	...	...	...
Norwich	88821	58	38	22·3	...	...	...	...	...	...
Plymouth	48	25	17·5	53·0	28·0	38·6	3·67	0·72	1·83
Bristol	210134	126	80	19·9	51·1	28·0	36·1	2·28	0·64	1·63
Wolverhampton ...	76756	51	38	25·8	42·4	25·4	33·1	0·62	0·77	1·96
Birmingham ...	408532	256	169	21·6	...	...	...	...	...	...
Leicester	126275	87	40	16·5	48·2	29·0	35·3	1·84	0·80	2·03
Nottingham ...	193573	126	81	21·8	45·3	26·9	34·9	1·61	2·03	5·16
Derby	83587	41	26	16·2	...	...	...	...	...	...
Birkenhead ...	85082	61	37	22·3	...	...	...	...	...	...
Liverpool	560377	364	311	29·0	46·2	23·5	36·0	2·22	0·87	3·21
Bolton	106767	72	36	17·6	43·5	27·1	33·8	1·01	1·32	3·35
Manchester ...	340241	252	152	23·3	...	...	...	...	...	...
Salford	184704	128	95	26·9	...	...	...	...	...	...
Oldham	115572	80	47	21·2	...	...	...	...	...	...
Blackburn	106460	72	60	29·4	...	...	...	...	...	...
Preston	97656	65	49	26·2	...	...	...	...	...	...
Huddersfield ...	83418	29	35	21·9	...	...	...	...	...	...
Halifax	74713	38	30	20·9	...	...	...	...	...	...
Bradford	200158	104	79	20·6	43·2	28·4	35·5	1·95	2·11	5·36
Leeds	345098	212	188	31·0	45·0	31·0	36·8	2·67	1·85	4·70
Sheffield	240516	160	138	24·8	44·0	29·7	35·5	1·95	1·53	3·94
Hull	158814	103	95	31·2	...	...	...	...	...	...
Sunderland ...	119065	91	51	35·5	45·0	30·0	36·6	2·36	2·57	6·53
Newcastle	147620	93	73	25·8	...	...	...	...	...	...
Cardiff	86724	77	32	19·3	...	...	...	...	...	...
For 28 towns ...	8469571	5453	3794	23·4	53·0	25·4	35·7	2·06	1·25	3·19
Edinburgh	232410	132	68	22·0	45·0	26·4	34·0	1·11	0·62	1·57
Glasgow	514048	313	303	30·8	48·0	29·0	37·0	0·00	0·75	1·90
Dublin	348293	157	166	24·9	47·5	19·0	33·1	0·62	0·52	1·32

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·11 in. The highest reading was 29·76 in. at the beginning of the week, and the lowest 28·88 in. on Tuesday morning.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

M.A. Oxon.—The Rev. Dr. Hawkins was a brother of Mr. Cæsar Henry Hawkins, who survives him, and of the late Dr. Francis Hawkins, of whom a biographical notice appeared in the *Medical Times and Gazette.*

Body-snatching: Philadelphia.—A band of resurrectionists has been captured with six bodies, intended for the Medical College, in their possession. The recovered corpses have been identified. The capture was planned by some reporters attached to the Philadelphia press, who carried it out successfully as amateur detectives. The captured men are now in gaol awaiting their trial.

Dr. Graham.—The celebrated Linacre resided in Stone House, in Knightrider-street, where also the first meetings of the College of Physicians were held after its establishment by him in 1518.

Mr. H. Francis.—There seems to be no question that Sir Everard Home destroyed the Hunterian MSS. in question. He was educated at Westminster School, elected thence to a scholarship at Trinity College, Cambridge, and, before the destruction of the valuable papers, held a high position in science, in his profession, in society, and in the estimation of his sovereign. There is a fine portrait of him by Thomas Phillips, R.A., in the rooms of the Royal Society, of which he was a Fellow. The Hunterian Oration will be delivered by Mr. Spencer Wells, President of the College.

Thomas Denman.—The examinations for the Licence in Midwifery of the College of Surgeons have long been discontinued—in fact, no appointments of the Board have been made for the last seven years. According to the last published Calendar, there appear to be 876 licentiates. The gentlemen mentioned by you are both licentiates. Write to the Secretary.

Caledonian.—According to the last annual report of the Glasgow Maternity Hospital, the income for the past year had been £1214, the expenditure £1310, and the stock account amounted to £443.

Physical Exercises, their Place and Function.—Dr. Charles Cathcart, Lecturer on Anatomy in the Edinburgh School of Medicine, in a lecture delivered at the Edinburgh Health Society a few days ago, gave, as to the effects of exercise in expanding the chest, some striking facts which related to a school where physical exercises had been systematically carried out. The effect of regular exercise was shown as follows:—New boys, aged fourteen, average chest measurement, 29·3; at fifteen, 30·16; at sixteen, 32·0; at seventeen, 32·6; and at eighteen, 32·5; while former boys measured respectively 30·6, 32·1, 34·2, 35·8, and 36·8. In concluding, Dr. Cathcart laid down some rules for the regulation of physical exercise.

The Manx Census.—The Isle of Man census return shows that on April 4 the population numbered 53,492—a decrease, compared with 1871, of 550.

The Threatened Removal of a Cabmen's Shelter.—The Paddington Vestry has wisely rescinded, by a majority of twenty-eight, the order which it had previously given for the removal of the cabmen's shelter in the Harrow-road. London cabmen probably enjoy as few comforts as most men; hence the erection of shelters for their benefit has met with much generous public support, and the experiment has been very successful.

The High Price of Meat.—At the City of London Court, a question arose as to the profits on meat in the Central Meat Market. In a judgment summons, the plaintiff, a meat salesman, carrying on business at the Metropolitan Meat Market, applied for the committal of the defendant, a man in the employment of a firm in the same market, for not having satisfied a judgment of the Court for payment of a debt and costs. It appeared, in answer to inquiries made by Mr. Commissioner Kerr, that the money was owing for "meat sold for the purpose of being re-sold in the market." The defendant bought from the salesman to re-sell at a profit to the butcher, and the evidence showed, as the Commissioner remarked, "that by the time it gets into the hands of the butcher at St. John's Wood there have already been four or five profits made, and no man knows when it gets upon his table what amount of profit has been made out of him. I think the public should know the advantage of the monopoly of the sale of meat in the Central Market. It is disgraceful."

Diseased Meat: a Conviction appealed against.—In the Queen's Bench Division, last week, the case of Williams *v.* the Narberth Sanitary Authority was heard. The appellant had been charged with having sold meat which was unsound and unfit for food of man. The day after the sale the purchaser complained of it and had it inspected, and it was condemned, and the appellant convicted. He now appealed against the conviction. The Court thought the Act only authorised the seizure of meat while exposed for sale, and a conviction for selling it when it is found at once upon examination to be unsound. Here the meat was not found to be bad until the day after it was sold, and that in hot weather—in July.

Education in the United States.—A lately issued special return from the Washington Census Office gives statistics of illiteracy in the United States, from the last census-taking. The total number of persons ten years old and upwards in the States and territories of the Union is 36,761,607. Of these 4,923,451, or 13·4 per cent., are returned as unable to read, and 6,239,958, or 17 per cent., as unable to write. The proportion of uneducated persons is greater among the negroes than among white people. Out of 4,601,207 coloured people above ten years of age, no fewer than 3,220,878 were found to be unable to write.

A Metropolitan Cemetery.—At a public meeting, held at the Limehouse Town Hall last week, on the "Bow Cemetery grievances," a speaker stated that the Act of Parliament set forth that the sewage of the cemetery should be confined within its precincts; but, as a matter of fact, the sewage of the cemetery was allowed to run into the common sewer, into St. Paul's-road, spreading pestilence and death amongst the inhabitants.

Fog Impurities.—A contemporary reports that Dr. Russell, of the Chemical Laboratory at St. Bartholomew's Hospital, a member of the Committee which has been for some time carrying on extensive experiments regarding the composition of London fogs, at the request of the Meteorological Council of the Royal Society, states that he has already obtained very important results, showing the great increase in the amount of carbonic acid in the air of the city during fogs. In some cases the increase amounts to upwards of two and a half times the quantity ordinarily present. The result is considered important, not only as demonstrating the presence of abnormal amounts of this gas during fogs, but also as indicating, by its accumulation, the probability that the proportion of other atmospheric impurities may be increased to a like extent.

Excessive Death-rate, Sunderland.—The Town Council has held a special meeting to consider the excessive death-rate in the borough, which for some weeks has been over thirty in the thousand, and one week it exceeded forty seven in the thousand. The causes were assigned to overcrowding caused by the great increase in the local industries, to climatic influences, and to deficient drainage. It was decided that the Health Committee should consider the subject, and report.

Arsenic in Dress Materials.—The *Dyer* says the German Government has just laid before the Reichstag a decree prohibiting the use of colours prepared with arsenic in dress materials, as well as that of pigments containing arseniates of copper.

Unsatisfactory.—At an inquiry held by the Nottingham coroner as to the death of the wife of a colliery engineer of New Stapleford, who was poisoned by arsenic contained in a dose of magnesia, it appeared the medicine was purchased at a shop in the village, and given by the purchaser to deceased's husband, who also took some, and was very ill. The jury returned a verdict of "Accidental death," no evidence being found as to how the arsenic was mixed with the magnesia.

A. N.—The East London Nursing Society supplies poor parishes with resident nurses who have received careful medical training. Last year the Society had seven parishes thus equipped; this year they have thirteen. There are many more parishes urgently needing the aid the Society gives, but funds are wanting.

Dangerous Substances for Toys.—A parent writes that his son, between ten and eleven years old, has been in danger of very serious injury through purchasing some blocks of sodium advertised in a catalogue of conjuring apparatus. Combustion takes place when this substance is thrown into water, thus affording a very dangerous amusement to children. His son, in using some of these blocks, met with an explosion which scattered the water in all directions, and every drop that touched his face and eyelids pitted him as if he had been shot. Had a single drop touched the sight he must inevitably have been blinded then and there. He suffered intense pain for some time, and will, no doubt, carry to his grave several marks on his face. Surely, he adds, there ought to be some restriction to prevent such dangerous substances being sold to children!

Anglesey and Carnarvonshire Infirmary.—At the annual meeting of the subscribers just held, the report drew attention to the strain made upon the institution, consequent upon the typhoid epidemic, and a resolution was passed, acknowledging the services of Dr. R. Rowland Jones, the House-Surgeon, to whom a gratuity of ten guineas was voted.

The Latest Sanitary Association.—"The Westminster Sanitary Association" has for its object the prevention of the spread of infectious diseases in the midst of a dense population. At a meeting recently held under the presidency of Cardinal Manning, it was reported, after four months' experience, that signal success had attended the labours of the members. It was stated that in thirty-two families in which scarlet fever had broken out, the malady had been confined to one case in each. The latest and most approved methods of dealing with infectious cases are adopted, under the supervision of the visitors of the Association.

COMMUNICATIONS have been received from—

Mr G. J. Symons, London; Mr. C. J. Wright, Leeds; Mr. W. Garner, London; The Registrar of the University of London; The Registrar-General for Ireland, Dublin; The Registrar of the Apothecaries' Hall, London. Dr. Ogilvie Will, Aberdeen; Dr. Whistler, London; Dr. J. W. Moore, Dublin; Mr. J. Chatto, London; The Honorary Secretary of the Medical Society of London; The Honorary Secretary of the Pathological Society, London; The Sanitary Commissioner for the Punjaub, Lahore; Professor Attfield, F.R.S., London; The Registrar-General for Scotland, Edinburgh; Dr. Wahltuch, Manchester; Dr. Theodore Williams, London; Dr. E. C. Seaton, Nottingham; Dr. Maxwell Simpson, Cork; The Treasurer of University College Hospital, London; Mr. G. Hopkins, East London Mission.

BOOKS, ETC., RECEIVED—

Notes on Books, by Messrs. Longmans and Co.—The Sanitary Chronicles of the Parish of St. Marylebone—London School of Medicine for Women, Inaugural Address—Something about a Well, etc., by the late John Brown, M.D.—The Relative Mortality of Large and Small Hospitals, by Henry C. Burdett—Transactions of the Medico-Chirurgical Society of Edinburgh—L'Acido Picrico nella Cura dell' Eresipela—The Sacred Eclogue, by Walter Garstang, M.D.—Conjoint Session of the North Carolina Board of Health and Medical Society of North Carolina, held May 10, 1882—Della Temperatura nell' Eclampsia Puerperale—The Treatment of Diseases by the Hypodermatic Method, by Robert Bartholow, M.A., M.D., LL.D.—Sessional Proceedings of the National Association for the Promotion of Social Science—La Predilezione dei Tubercoli—D'Ophthalmologie Pratique, par le Docteur S. Baudry—L'Amaurose et de l'Amblyopie, par le Docteur S. Baudry—A New Method of Reduction in Dislocations of the Humerus, by James E. Kelly F.R.C.S.I.—Annual Report of the Health of Salford—Report of the Council of the Metropolitan Hospital Sunday Fund—Annales des Maladies des Organes Génito-Urinaires—Opening Address of the Medico-Chirurgical College of Philadelphia, by George P. Oliver, A.M., M.D.—A System of Surgery, by Samuel D. Gross, M.D., LL.D., D.C.L. Oxon., LL.D. Cantab.—Artificial Light, by J. Banting Rogers Nerve-Vibration and Excitation, by J. Mortimer Granville, M.D.—The Garden of Fragrance, by G. S. Davie, M.D.—Die Augenlinsensterne des Menschen und der Wirbelthiere ein Beitrag zur Anatomie der Augenlinse, von Dr. Severin Robinski.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Indian Medical Gazette—Journal of Cutaneous and Venereal Diseases—Cincinnati Lancet and Clinic—Medical News—Leamington Spa Courier, December 2—North Carolina Medical Journal—Royal Leamington, Warwick, and County Chronicle, December 2—Revista de Medicina—Therapeutic Gazette.

APPOINTMENTS FOR THE WEEK.

December 16. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

18. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Braxton Hicks, "On the Tension of the Abdomen." Dr. Wiltshire, "On Abdominal Pulsation."

19. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Specimens: Mr. Bowlby—1. Disseminated Polypi of Colon; 2. Polypus of Rectum; 3. Specimen of Casts made of a New Material. Mr. J. B. Sutton—Disseminated Abscesses in Liver of Python and of Kangaroo. Dr. Walter Edmunds—Nerves from Three Cases of Infantile Paralysis. Dr. Goodhart—1. Case of Infantile Bone-Disease; 2. Addison's Disease without Bronzing. Mr. Victor Horsley—1. Bone and Brain Disease in Syphilis; 2. Micro-organisms from Pyæmia. Dr Bedford Fenwick—Cancer of Omentum (card specimen). Dr. Hale White and Dr. W. Edmunds—Specimen of Neuromata. Mr. Shattock—Urinary Calculi, chiefly composed of Carbonate of Lime.

20. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

22. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

ORIGINAL LECTURES.

ABSTRACT OF PAPER ON THE

INFLUENCE OF SMALL-POX HOSPITALS, Etc.

By EDWARD SEATON, M.D. Lond., M.R.C.P.,

Medical Officer of Health, and Physician to the General Hospital, Nottingham.

THE reader commenced by giving a description, illustrated by photographs, maps, and plans, of the kind of hospital accommodation at Nottingham, which was situate quite in the heart of the populous part of the borough. It was erected in 1871, and was of a temporary character, consisting of wooden huts, capable of receiving eighty patients, built in a space of five acres of ground, and divided from frequented thoroughfares only by a wooden fence six feet high. The disadvantages of a hospital so situate and so constructed were obviously great. Much care and attention had been given by those who were concerned in the management, but with such materials it was an impossibility to carry out isolation in the perfect manner that should be expected at hospitals for infectious diseases. In the first place there was no suitable provision for a resident medical officer, who would be there to maintain a constant and intelligent supervision, and to exercise absolute and undivided control over the establishment and its inmates. Then again, being very centrally placed, some of the private practitioners continued attendance on their own cases at the hospital, and though most of them were very careful to adopt all requisite and practicable precautions, there were some who were not so. The chief drawback was due to the facilities for communication between the convalescents and persons outside over the wooden fence; and when the hospital was full it was exceedingly difficult to prevent this altogether. Then again, there was another drawback to this hospital, arising from the fact that the Poor-law Authority had a kind of joint proprietorship with the Sanitary Authority, which, at one time, seriously interfered with their proper medical management. It was evident, then, that hospitals of this temporary character, especially when in the centre of a town, did not allow of isolation being carried out in a sufficiently complete manner. Being convinced of this by his recent experience, he had strongly urged the Town Council of Nottingham to build a permanent hospital away from the central part of the town, and they were now proposing to go to Parliament for compulsory powers to enable them to obtain a suitable site in accordance with the recommendations of the Royal Commission. After dwelling on the great difficulty in tracing cases in town populations, he proceeded to give a narrative of the early part of the epidemic, which arose from cases imported into different parts of the town from London, Derby, and elsewhere, accounting for all the cases which came to his knowledge during the first two months. With one exception each of these admitted of being so dealt with as to allow little room for the spread of the infection. The exception to which he referred occurred during the fifth week of the epidemic. It formed a centre of infection in a direction north-east of the hospital, and at a distance of more than half a mile. He then referred to certain other cases which came to his knowledge about this time, and which must have been prolific centres of infection. One of these was at a little barber's shop. The mother and wife of the barber were attacked with the disease severely, and must have been lying within a few feet of where the customers were shaved. He had good authority, too, for saying that the barber himself suffered from a rash which was believed to be that of modified small-pox, his illness not being sufficient to prevent him pursuing his avocation. Another centre was at a tripe shop, where the person who nursed the patient also waited in the shop. Another, close by, was that of a man who refused to be removed to the hospital, and was afterwards found, with the crusts of small-pox upon him, conversing with people, for which offence he was prosecuted and fined. These cases occurred within the quarter-mile radius of the hospital. There was another at a distance of about half a mile east of the hospital, an anti-vaccinator, who, being also a tailor, had the opportunity of disseminating the disease broadcast. This last-mentioned case, together with the other centre to which he had referred as having occurred during the fifth week of the epidemic, formed the starting-points of an outbreak a long way off, just as the barber's shop and the tripe shop must have been starting-points of the outbreak close to the hospital, on the east and north-east sides. This and other points he elucidated by a series of hand-maps which he had prepared, showing the gradual development of the epidemic. The maps showed the hospital as a centre, circles being drawn to indicate the quarter-mile, half-mile, three-quarter-mile, and mile radius. The cases were shown by spots of three different colours—dark blue, light blue, and red. The dark blue indicated those which were kept at home fully isolated; the light blue, those kept at home fairly well isolated; the red, those removed to hospital. This division was of course somewhat arbitrary. The isolation was not equally bad in all the cases indicated by dark blue spots, and among the cases indicated by red spots were many who were promptly removed to hospital as soon as the symptoms of the disease were manifest: and others in which there had been opportunities for the spread of the disease before removal took place. Still, the different coloured spots served to indicate roughly the relation of cases. There were in all eight hand-maps. Five of these referred to different periods of the epidemic; the first, comprising cases 1 to 100, from November 24, 1881, to March 8, 1882; the second, 101 to 200, March 8 to May 1, and so on. Between the first and the second there was an intermediate map, A, showing the first 183 cases, November 24, 1881, to April 26, 1882. Then there was a map showing those of the whole 500 cases from November 24, 1881, to November 7, 1882, which occurred within the mile radius. The eighth map referred to the epidemic of 1871-72. By the help of these maps a lesson might be learnt as to the value of an isolation hospital in checking the spread of small-pox. Taking Map A, which showed the 183 cases occurring during the first five months, they would be at once struck by the way in which they were grouped near to badly isolated cases. A blue spot was almost always followed by a crop of other spots; on the other hand, red spots occurring in other localities stood alone. As he had already said, it would be seen from this map that the cases east of the hospital were arranged in two principal groups, which had relation to recognised centres of infection. These groups were separated by a broad belt of populous district, almost entirely clear, with the exception of one little secluded terrace of houses, about which the disease hung for months. The relation of this cluster of spots to a blue spot as a starting-point seemed very evident. These groups—two large and one small—had occurred on the east side of the hospital, and the prevailing wind during the first five months of the epidemic was from the west. This had given rise to the supposition that the infection was carried in the atmosphere from the hospital as a centre; and in view of Mr. Power's admirable report recently made public, it was necessary to examine the facts closely to see whether they fitted in with this hypothesis. Apart from the relation the cases bore to recognised centres of infection, there were other considerations which directly negatived this supposition. In the first place, the number of cases was greater in the group near to the half-mile ring, and between that and the three-quarter-mile ring, than close to the hospital. There had been no simultaneous outburst of cases, such as might have been expected had the semina of small-pox been widely scattered in a still active state amongst a population which was proved to be susceptible. He had five maps, on a large scale, hung in the room, showing the position of each case as it occurred, the date of its occurrence being also indicated by a number; every case thus appeared as it presented itself in point of time. He would not attempt to go through the various groups of cases which made up the epidemic; he would, however, select one group as illustrating the others. It was that in the little secluded terrace, and in houses immediately adjoining, already referred to. The cases recorded here within a few yards of each other were numbered 39, 44, 57, 68, 94, 99, 136, 153; the corresponding dates being January 30, February 8, 16, and 22, March 4, 8, and 29, April 3. Now, this little cluster

formed, up to the end of the first five months of the epidemic a small independent group between the two large groups. The whole of the circumstances pointed to the fact that they arose from direct or intermediate communication between infected and non-infected persons. On the other hand, the hypothesis of atmospheric dissemination required us to suppose that the small-pox material, in process of being conveyed by the atmosphere in an easterly direction to the locality at the extremity of the half-mile radius, passed over, unharmed, the belt of populous district which intervened between the two large groups, and showed a special affinity for this particular spot; and not only so, but that it should have given evidence of its power for mischief by attacking the persons living there at different times. The opportunities he had of seeing the way in which the cases arose led him to attach much importance to these considerations. He then drew attention to a large map of the borough, into which glass-headed pins were stuck to indicate the cases where they occurred—the first 183 being shown by black-headed pins, and the rest of the five hundred by pink-headed pins. It would be seen that there were very few black-headed pins near the hospital on the south side—not so many as those beyond the mile radius, which indicated some of the very earliest cases of the epidemic. East and north-east of the hospital they were massed in groups as already described. The pink pins were pretty thick south of the hospital, and also plentifully interspersed among and between the groups on the east. It would be seen, then, that during the first five months the south side was nearly free from small-pox, but that subsequently it became invaded. To account for this, much importance had been attached to the direction and force of the wind, which was chiefly from a westerly direction till the end of March, and during April and May from a northerly quarter. But, independently of all other considerations which were entirely opposed to this view, there was the fact that though the wind blew sometimes from the north, the susceptible population near to the hospital on the south were more free from the disease during all these months than localities widely distant. Besides, according to recent observations, it was not windy, but calm, misty, foggy weather which was favourable to the dissemination of small-pox material, and, assuming this to be so, the difficulty was to explain the immunity of the south side, seeing that there were twenty-eight days recorded as calm, misty, or foggy during the five months. The reason for the exemption of this district seemed to him quite clear; it was this—that the few cases that occurred south of the hospital within the quarter-mile, half-mile, and three-quarter-mile rings were promptly reported, and in every case they were successful in getting them removed to hospital. This was shown in map A, where the cases were all indicated by red spots. At the end of April a case of small-pox was imported into the district; it was kept at home throughout the illness. He drew the attention of the Health Committee to this case when it occurred. For certain reasons it could not be removed to hospital, and the isolation was about as bad as it could be. Three other unvaccinated children in the same house were subsequently attacked. Now, this group of cases at the end of April constituted a prolific centre of infection on the south side, just as the barber's shop in January must have been the starting-point of much of the small-pox near the hospital on the east. He told the Committee they must anticipate a spread of the disease in this direction; and during the summer, as the maps showed, a large proportion of the cases appeared on this side. He then went on to describe the hand-maps further in detail. As a rule, the blue spots were followed by a crop of other spots, but there would be seen to be some exceptions to this rule. It would be remarkable if it were not so, seeing that they had in vaccination an influence controlling the spread of small-pox more powerful than that of isolation. Whenever small-pox made its appearance in a locality, the Sanitary Authority urged revaccination not only on the household, but on the neighbours. In order to facilitate this, lymph freshly taken from well-chosen cases was furnished to practitioners for the purpose of revaccinating those who required it, and who were likely to be exposed to infection; and where medical men had certified that the persons were not in a position to pay the fees for these revaccinations, the Sanitary Authority had, with a wise liberality, made it a rule to pay for them at the rate of 2s. 6d. each. Still, with all these arrangements, there was the greatest possible difference in the way in which vaccination was pressed by different medical practitioners, and this fact, of course, constituted an element of the first importance in determining the spread of small-pox. Then, again, independently of the way in which the desirability of vaccination was put forward by the medical attendant and the officer of the Sanitary Authority, the occurrence of a death from this terrible and loathsome disease would sometimes arouse the people of a neighbourhood to a sense of their folly in neglecting to avail themselves of vaccination. This was all the more so when the case was kept at home, and the people became acquainted with small-pox in all its hideousness as it occurred amongst the unvaccinated or the badly vaccinated. This led him to speak of one disadvantage that attended the removal of the worst cases to hospital. It undoubtedly tended to encourage that indifference and repugnance to vaccination which was so sedulously cultivated by anti-vaccinators, and which arose to a large extent from an ignorance on the part of the people as to what small-pox unmodified by vaccination really was. This was one of the disadvantages that to some extent counterbalanced the great advantages, from a public health point of view, of the early removal of cases to hospital. Then, besides the action to which he had already referred, he had himself, acting for the Health Committee, done what he could single-handed towards promoting revaccination. He had endeavoured to bring this about by addressing meetings of the working people at the factories on the subject, and, at the same time, providing exceptional facilities for good "arm-to-arm" vaccination, free of cost, at the factories. In some instances, being backed up enthusiastically by large employers of labour, he had succeeded in getting numbers of lace-girls over fifteen years of age, and other factory hands, revaccinated, and in this manner they must undoubtedly have interfered considerably with the progress of the disease. With all these disturbing elements, if he might so term them, it was not to be expected that the spread would be uniformly in proportion to the badness of the isolation, or that there should be any mathematical relation between the number of blue spots to the total number of spots in a given locality. Still, on looking through the series of maps, they would see that the localities in which badly isolated cases occurred almost always became the seats of a further outbreak. The exception to this general rule seemed to be most marked in the fourth map of the series, which comprised the one hundred cases occurring between June 12 and July 7, and also in the fifth, which comprised the last hundred, the most of which occurred in July. Here they had in the season of the year another important controlling influence of a nature as yet little understood. For though during July and August nearly all the cases were promptly removed to hospital, there were a few outside, which at another period of the year would certainly have proved active centres of infection. He could not, therefore, ascribe to hospital influence more than a share in bringing about the almost complete cessation of the epidemic in September, though he was disposed to think that share was a very large one, having regard to the fact that there must still be a very large proportion of susceptible persons in the borough. Here he might ask—How was it that small-pox did not spread so rapidly at one time of the year as another? How was it that in one epidemic it would assume a much more malignant form than in another? How was it that measles a few years ago attacked Plymouth with such virulence, and at the same time the same disease prevailing extensively amongst a population of presumably the same susceptibility, at Nottingham, caused many deaths, it is true, but still by comparison few? Why was scarlet fever so terribly fatal in Hull about a year ago? By the light of present knowledge we can only partially account for these anomalies. The science of epidemiology has yet to solve these and many other mysteries. In the meanwhile, with regard to small-pox, we can say this for certain, that it is practically preventable by vaccination and revaccination *properly* performed, if the people would only avail themselves of these safeguards. In isolation hospitals we have also another means of prevention, which, for various reasons, must, I think, at the present day be considered indispensable. The last map of the series showed the whole of the cases which occurred from November 24, 1881, to November 7, 1882, within the mile radius, in

relation to cases kept at home as well as in their relation to hospital. It was important to note that, though the total number of cases appeared to show a relation to their distance from the hospital, they also bore a relation to the number of centres of infection within the four circles. The relation was not a definite one, and would not be expected to be so, for reasons already stated, but it was obviously a prime factor for consideration in determining the question of atmospheric dissemination. He had not as yet had the opportunity of alluding to a very probable source of infection in some of the first cases which he had referred to as starting-points of the outbreak, near to the hospital. It arose from one of those very slight cases of modified small-pox which are best described as "ambulatory small-pox," and which, as we know, are so often fruitful sources of mischief in a way in which, at present, it would appear beyond our power to prevent. This man, who lived near the hospital, and also close to where the subsequent cases arose, must have taken small-pox at the end of November or beginning of December, 1881, when there was only one case of small-pox in the hospital. Unless it were supposed that this man contracted his illness from this one case through the atmosphere, he must have got it independently of the hospital, seeing that prior to November 24 it had not been used for small-pox for months, and then only for one case at a time. He was about as usual whilst in a condition likely to give the disease to others. It would be seen, then, that even at the very commencement of the epidemic there was outside the hospital an independent source of infection, and that very erroneous conclusions might have been arrived at had it been overlooked. He then proceeded to draw attention to certain remarkable exemptions, which could not well be accounted for on the hypothesis of atmospheric dissemination. The west side of the hospital had been comparatively free from the disease, as compared with the south and east sides, and though it was possible that the population was better protected by vaccination, there was no proof that it was so. Then close to the hospital on the west was the union workhouse. The disease first made its appearance here on November 24, the case being removed to the hospital over the way at once. Whilst at the workhouse the patient was in the "skin ward," with fourteen others. Of these fourteen, seven contracted the disease. There were a few other cases which occurred at the workhouse about this time, and one person died there; but after the commencement of the epidemic, the workhouse, with its 615 inmates, was free from the disease, notwithstanding its close proximity to the hospital, and notwithstanding that there had been very little revaccination carried out. In May another case or two having occurred, revaccination was extensively resorted to. On the other side of the road on the north is a large board school. In the boys' department, which is nearest the hospital, there are 410 scholars; two of these only were attacked, and in each there was ample opportunity for the illness to have been contracted in the ordinary way. This immunity, however, does not go for much, seeing that primary vaccination would protect the vast majority of those at school age, and it would be only those who had escaped vaccination who would constitute a test. But by far the most remarkable case is that of Mr. Hodgson's factory on the south side. This building is virtually in the hospital ground, the distance being only thirty yards from the nearest hut to the factory wall (photographs shown). Some of the windows on the second and third floors overlook the hospital ground, and one might easily pitch a stone from one of the "doubler's" rooms into one of the hospital huts in which some of the worst cases were put during the epidemic. The factory buildings, however, are enclosed in such a way that there can be no personal communication between the workpeople and the hospital convalescents. During the year two persons working at this factory have been attacked. In one case the source of infection might be said to have been traced with a considerable amount of probability; in the other it would be quite impossible for anyone to ascertain with anything like certainty the various chances of infection incurred twelve or thirteen days prior to the commencement of illness. When he visited this factory a few days ago it was for the purpose of finding out whether there were any but a very few persons who had not been revaccinated. The factory was not one of those at which he had himself addressed the employés, but, having regard to its very close proximity to the hospital, and to the danger which was supposed to exist in consequence, he fully expected to find that nearly every one was protected against small-pox by revaccination. To his great astonishment he found that (excepting the Messrs Hodgson), so far from being the rule, revaccination had been the rare exception; that a large number of the workpeople were very badly vaccinated, and that some were unvaccinated. In order to show the proportion of persons who might be looked on as susceptible to small-pox he had drawn up the following table. In separating the vaccinated but unrevaccinated adults into Classes II. and IV. he had been guided not only by the number and size, but also the character of the marks as regards their foveate and depressed condition. This division was, of course, somewhat arbitrary; some of those placed in Class IV. might by others have been placed in Class II., and *vice versâ*; but he had tried to represent the facts as fairly as possible.

HODGSON'S FACTORY.—*Date of Examination, November* 13 *and* 14, 1882.

Number of persons examined as to vaccination, 113.

" refused to be examined, 4 { Said to have good primary vaccination ... 3. / Said to be unvaccinated ... ... 1.

Total number employed at date of examination, 117.

Number of persons employed during whole of epidemic ... ... { November, 1881, to November, 1882 } 90.

Number of persons taken into employ during epidemic ... ... { Before September 1, 1882 ... 23 / Since September 1, 1882 ... 7 } 30.

Total number employed during whole or chief part of epidemic, 110.

Of the 90 employed during the whole time,		Of the 20 employed during the chief part,	
(a.) Completely or partially protected, 51.	(b.) Unprotected or very slightly protected, 39.	(a.) Completely or partially protected, 11.	Unprotected or very slightly protected, 9.
Class I.—15. Adults revaccinated; under 15, with good marks.	Class IV.—34. Adults with bad marks. Class V.—5. No marks, unvaccinated.	Class I.—5. Adults revaccinated; under 15, with good marks.	Class IV.—8. Adults with bad marks. Class V.—2. No marks, unvaccinated.
Class II.—27. Adults with moderately good marks; under 15, with evidence of vaccination.		Class II.—6. Adults with moderately good marks; under 15, with evidence of vaccination.	
Class III.—9. Previous attacks of small-pox.		Class III.—0. Previous attacks of small-pox.	

Total number working in the factory during whole or chief part of epidemic, 110.

(a.) Completely or partially protected, 62. (b.) Unprotected or very slightly protected, 48.

Now, the number of patients at the hospital huts was at one time as many as seventy-eight. The proportion of acute cases was, of course, constantly varying, but in one week there were as many as thirty-two fresh cases admitted. At the lace factories the work is carried on at night as well as in the daytime. During the eleven months the "hands" must have been working there under every conceivable variation in atmospheric conditions. They were there during the still, cold, foggy weather of December and January, during the early spring when the high winds blew from the west, in the hot days of June and July, in the still summer evenings, and again in the early morning when the dew was rising from the earth. They were there in damp and dry states of the atmosphere, when the amount of ozone, accord-

ing to Schönbein's test, was present in large quantities, and again when it was absent; when the electrical condition must also have varied; when the wind was from the north, the south, the east, and the west. Had fourteen of these forty-eight persons been for twenty-four hours in the "skin ward" with a case of small-pox, as the people were over the way on November 24, it is highly probable that, as had happened then, about half of them would have contracted the disease. On the hypothesis of aërial infection, and having regard to the close proximity of the hospital, it is certainly very difficult to account for the immunity of these forty-eight persons during the whole epidemic. In conclusion, he exhibited a map which showed the localities in which all the fatal cases occurred during the epidemic of 1871-72. It was impossible for him to do more than this, as, of course, at that time there was no registration or notification of cases of sickness. It would be understood, therefore, that this map had not the same signification as those he had previously laid before them; still it was a very remarkable fact that the deaths from small-pox, which he had indicated by black spots, were chiefly aggregated in localities far removed from the hospital, the immediate vicinity of which, especially on the north and east sides, was remarkably free. This quite coincided with the facts given by Dr. Thorne ("Report of the Medical Officer, Local Government Board, 1882," page 210), and with the very important statements there recorded of Mr. Burnie and Dr. Bury, medical gentlemen who practised in the neighbourhood at the time, which went to show that though the hospital was fuller during that epidemic than it had ever been on this occasion, there was less small-pox in the neighbourhood than in other parts of the town.

THE DIAGNOSIS OF DISEASES OF THE SKIN.

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LECTURE XVI.

B.—ORGANIC AFFECTIONS.

I.—THOSE DEFINED BY UNIFORM CAUSES.

3. *Strumous Affections of the Skin.*

THESE have certain characters in common, to which it may be well in the first place for a few moments to allude.

1. They are very chronic, and in most cases the disease for which we are consulted is found to have lasted for months or even for many years.

2. The eruption has a great tendency to assume a dusky-red, violet, or vinous tint, thus contrasting with the bright-red colour of most simple inflammations, and the coppery hue of chronic syphilitic affections.

3. In most affections of the skin, itching, or pain, or burning heat, or some disagreeable sensation is complained of at times at least, whereas the majority of strumous affections are remarkable for the absence of pain and itching.

4. If ulceration occurs—to which there is a great tendency—the characters of the ulcers are often very typical: the skin around them has a dusky-red or violet tint; their edges are often undermined, and they have a tendency to throw out profuse granulations.

5. Even when there has been no preceding ulceration, a cicatricial appearance of the skin is almost invariably left, the surface being generally depressed and often parchment-like; and, when there has been ulceration, the cicatrices are sometimes very characteristic, owing, no doubt, to the peculiar character of the ulceration as above described. Little tongue-like processes of skin often project from the surface, or bridles of skin are left, underneath which the probe can often be passed.

6. If we except Lichen Scrofulosorum, which is usually limited to the trunk of the body, the part which is most generally attacked is the face, and next to this, though at a long interval, the extremities and the hips.

7. The eruption is usually circumscribed, and, although a good many scattered patches may sometimes be observed, the whole extent of skin invaded is rarely great; and such a thing as a strumous affection involving the greater part of the cutaneous envelope is never seen.

8. These affections have a special tendency to attack the young, either in childhood, or about the period of puberty, or, at all events, usually before the age of twenty-five, although they may persist obstinately for many years thereafter. An exception to this rule is, however, to be found in Lupus Erythematodes (afterwards to be described), which often sets in in middle life.

9. Lastly, in a considerable proportion of cases, other strumous affections (manifestations of the strumous diathesis), such as Caries, Necrosis, strumous affections of the glands (especially of the sides of the neck), or of the eyes, coincide with the affection of the skin.

Most of the forms of strumous affection of the skin met with in practice may be classed under one or other of the following heads, viz.:—

i. Lupus Vulgaris { Non-exedens. / Exedens.
ii. Lupus Erythematodes.
iii. Lichen Scrofulosorum.
iv. Scrofuloderma—variety, S. verrucosum.

i. *Lupus Vulgaris.*

This is a common manifestation of the strumous diathesis, and one which is met with in all classes of the community, although the worst cases are usually, though not invariably, in those whose diet is bad, and whose hygienic surroundings are wretched; and yet it may appear in those whose general health *seems* to be excellent; it rarely interferes much with the general health, and in uncomplicated cases is unaccompanied by fever. Males and females are nearly equally liable to its attacks, and it usually begins its ravages between puberty and twenty-five. Any part of the body may be implicated: the extremities are more frequently invaded than the trunk of the body, but in the great majority of cases its seat is on the face, especially the nose or cheeks; indeed, Devergie's statistics show that of forty-four cases the face was attacked in no less than forty-one.

The disease commences in the deeper layers of the skin, giving rise to little yellowish-brown nodules: these are improperly termed tubercles, because there is usually not much elevation, and their area is not much greater than that of small papules. They are very soft, and can therefore be easily penetrated by means of a pointed stick of caustic, thus contrasting strongly with the firm and resistant healthy tissue around. These nodules gradually increase in number and in size, and sooner or later many of them coalesce, so as to form yellowish-brown or violet patches of variable extent, often glistening on the surface, and covered more or less with scales, but at their edges some isolated nodules are usually to be detected. It occasionally happens that the Lupus deposit is so copious as to lead to very considerable elevation, and the surface may then have more or less of a tubercular appearance; this is the Lupus Hypertrophicus of some authors, but the term is also sometimes used to designate an eruption accompanied by great swelling of the subcutaneous cellular tissue. The patches are usually more or less rounded, and often there is a tendency for the eruption to heal in the centre, and to spread at the edges in elevated circles or segments of circles. In this condition the disease may remain in an indolent state for an indefinite period of time, giving no trouble except for the disfigurement which it produces, and with no tendency to ulceration (Lupus non-exedens); but should it disappear in whole or in part, a cicatricial condition of the skin is invariably left, apart altogether from the use of strong local applications, or the occurrence of ulceration.

In a large proportion of cases, however, especially if the general health is much below par, or the surroundings of the patient unfavourable, ulceration, at some parts at least of the eruption, occurs (Lupus exedens), for the Lupus deposit is possessed of very feeble vitality. Pustules form here and there—sometimes isolated, more often confluent,—which dry into crusts, beneath which the ulcerating process is apt to proceed, and with a great tendency to the development of profuse granulations, so that, on removing the crusts, the surface has a very uneven and rugged aspect, and presents a very different picture from that of the non-ulcerating variety. It occasionally happens that the ulceration, instead of spreading superficially, penetrates deeply, and produces great destruction and deformity (Lupus tere-

brans—Lupus vorax). In this way the alæ nasi are often destroyed, or the septum of the nose perforated; indeed, in a large number of cases the latter is the first evidence of disease, one which is very apt to be overlooked or neglected, and which may considerably precede the appearance of the eruption on the surface. The disease may also produce caries of the bones of the nose and palate, leading to almost complete destruction of the former and to perforation of the latter. More frequently, however, the ulceration spreads superficially, healing in the centre, and spreading at the circumference in circles or segments of circles (Lupus serpiginosus), and may gradually involve a considerable extent of surface, when it is very apt to be mistaken for a serpiginous syphilitic eruption. As the ulceration extends circumferentially, cicatrisation usually occurs in the centres of the patches, but the cicatrices often become the seat of a fresh deposit of Lupus nodules, forming new points of departure. This variety also produces much disfigurement, which may even be aggravated by the healing up of the ulceration, the cicatrices inducing twisting of the mouth, dragging down the lower eyelid (ectropium) and exposing the eyeballs, which may inflame, or interfering with the play of the muscles of the face, or with the movements of the neck. The soft tissues covering the nose and cheeks, too, are very apt to be atrophied, and thus the patient may present a most revolting appearance—a condition which, unfortunately, is too often beyond the surgeon's skill.

Like other strumous affections, this disease is exceedingly chronic—so much so that I have rarely seen a case which was of less than six months' duration, while it is quite common to be consulted by patients who have suffered from it for ten, fifteen, or twenty years. It is sometimes beneficially influenced by intercurrent affections: this is especially true of erysipelas, which, attacking the affected part, has been known to cure the eruption of which it was a complication. The same result has also been known to follow the outbreak of a constitutional disease, though much more rarely; and Hardy mentions a case of complete cure as the result of an intercurrent severe attack of enteric fever.

There are some who hold that Lupus is the offspring of Syphilis in the parents, that, in fact, it is one of the late manifestations of hereditary Syphilis. This, however, is in no way proved, and is open to grave doubt, although probably persons tainted with Syphilis may be more liable to it than those not so affected, because anything which deteriorates the general health favours the development of the strumous diathesis.

The diagnosis of Lupus Vulgaris is usually very easily arrived at: the seat of the eruption (most commonly on the face), the peculiar reddish-brown or violet glistening spots which characterise it, the absence of pain or itching, its very slow progress, the tendency to ulceration, the ulcers usually throwing out very profuse granulations, the occurrence of characteristic cicatrices even without preceding ulceration, and the frequent accompaniment of other signs of the strumous diathesis, are features which, when carefully attended to, serve to distinguish Lupus from all other diseases.

The only affections likely to be confounded with it are Lupus Erythematodes, Leprosy, Epithelioma, and Syphilis. The diagnosis of the first two of these will be considered after they have been described, while the following tables should serve to distinguish the other two:—

Lupus Vulgaris.	*Epithelioma.*
1. Commences usually before the age of twenty-five, and often much earlier in life.	1. Occurs usually in persons getting up in years.
2. An indolent, painless affection.	2. Tingling, and pain often lancinating in character, common.
3. Edges of patches, though often round and elevated, are soft.	3. Edges hard, everted, and often having a glistening translucent appearance.
4. Ulcers in most cases superficial, soft, throwing out profuse granulations, and edges often undermined.	4. Ulcers oftener deep, hard, with uneven, finely granular appearance, and exuding a sticky fluid, which gives a varnished appearance to the surface.
5. The nose is the part of the face oftenest attacked.	5. The nose is not more frequently involved than other parts of the face.

Lupus Vulgaris.	*Late Manifestations of Syphilis.*
1. Commences early in life, generally before twenty-five.	1. Appears usually after the age of twenty-five.
2. Often a history of hereditary tendency to strumous affections.	2. History of Syphilis having been acquired.
3. Oftenest met with on the face.	3. On any part of the body, though often upon the face.
4. Ulceration has tendency to throw out profuse granulations, and edges often undermined.	4. Ulceration as if cut out with a punch, and base ashgrey.
5. Colour of eruption yellowish-red or violet.	5. Colour of eruption in the chronic stage usually coppery.
6. Often of many years' duration.	6. Chronic, though not nearly so much so.
7. Cured by the use of caustics and anti-strumous remedies.	7. Cured by mercury or iodine.
8. Often other manifestations of the strumous diathesis.	8. Generally other manifestations of Syphilis.

ORIGINAL COMMUNICATIONS.

PRACTICAL NOTES ON
THE ORDINARY DISEASES OF INDIA,
ESPECIALLY THOSE PREVALENT IN BENGAL.

By NORMAN CHEVERS, C.I.E., M.D.

(*Continued from page* 691.)

MALARIOUS REMITTENT FEVER OF THE PLAINS OF INDIA.

Causes and Differentiation of the Remittent and True Enteric Fevers of India.

A few years ago I, and probably any other physician of Indian experience, would have written upon the disease which we all concurred in designating as "Paludal Remittent Fever" with as little hesitation, regarding its etiology and diagnosis, as we should have felt in dealing with common ague. Now, however, the whole question has been torn in pieces, and there appear to be nearly as many conflicting opinions as there are professors. In fact, the opinions of Indian physicians regarding the true types of the grave fevers of that country are, just at present, in a state of transitionary unsettlement, almost precisely similar to that which, more than forty years ago, Sir Thomas Watson described in his Lectures:—

"The mildest form of fever to which malaria gives birth is the intermittent or ague, but in climates and places where it exists in greater abundance and intensity, the fever becomes remittent, or even assumes the continued form. *This has led to strange errors—fevers which spring from the malaria, and which are never contagious, are confounded with the severe continued fevers usually called typhus, which are unquestionably communicable from person to person.*"(a)

Nevertheless, in India at present this doubt is gradually resolving itself into certainty. That mysterious word "FEVERS," which has always held so prominent but so dark a position in the Indian medical returns, is beginning to be intelligible to Indian physicians, who are able to perceive that it comprises Intermittent, True Enteric, and Relapsing Fever. So far the question is becoming clear, but what many of us still term "Paludal Remittent" is now the subject of doubt and controversy. "Is there," it is inquired, "any such thing as a paludal poison?" "No!" "Is there such a thing as Paludal Intermittent?" "No; assuredly not!" We are told that "the only intermittents are intermittent typhus, enteric, and relapsing." "Is there such a thing as paludal remittent?" "No!" India is ravaged by "continued" fevers; there is no such disease as "remittent" fever. Sift and properly investigate your cases of the malady erroneously so-called and muddled together in the Official Returns under that heading, and all "remittents" will resolve themselves into cases of "Typhus, Enteric, and Relapsing Fevers."

(a) The italics are mine.—N. C.

Others inquire, "Does the True Enteric Fever of Jenner exist in India?" and reply "No: the so-called Enteric of India is climatic, i.e., Paludal Remittent with bowel-complication."

I have studied, with care and great interest, nearly everything which has been published during the course of this controversy. I think that the discussion has been most useful, because it has now reached the point at which the youngest practitioner in India must feel that his ignorance scarcely falls short of criminality if, after having studied all that the best Indian authorities have lately written on this subject, he fails, in those cases which he has watched throughout their full course, and examined after death, to distinguish which was Indian Relapsing Spirillum Fever, which the True Enteric of Jenner, and which the Paludal Remittent. To myself, the result of this pleasant course of reading is that, while it has greatly added to my own old store of valuable facts, it has left my chief and earliest opinions absolutely unshaken. One of these opinions is that, although marsh poison is the great factor in the causation of Remittent Fever, and although, in a very decided y less degree, this poison may be everywhere a factor in the causation of Enteric and Relapsing Fever, and probably often modifies their type when they occur in India, Remittent Fever is, etiologically, and in all its characteristics, as distinct from these other two diseases as plague and ague are from one another.

As the question of the differentiation of Enteric and Remittent Fever in India has been much discussed since I published my chapters on the former disease, a few additional remarks upon the history of Enteric Fever, and especially of Indian Enteric, may not be out of place here.

Since I last wrote on this subject, I have enjoyed the advantage of discussing it with Drs. Morehead and Maclean. What I have heard from these great authorities fully confirms the opinion which I submitted to the profession in the columns of this journal in September, 1879, which was that, —although True Enteric Fever, or a fever closely resembling it, probably made occasional appearances in India between the times of Dr. John Clarke (1770-85) and of Twining (1835), and although Morehead saw two cases, and Scriven and Ewart each saw a solitary case, Edward Goodeve saw and described an outbreak of the disease in Calcutta, and I saw two distinct outbreaks and a few isolated cases in the same city,—True Enteric Fever was long a rare disease in India until it became somewhat prevalent, in comparatively recent times, chiefly among European troops. No one who knew Dr. Morehead, and has, in studying his admirable work on Indian diseases, admired the rare combination of truth and knowledge which every page displays, will imagine that True Enteric Fever ever prevailed to a great extent in his hospitals during the term of his long Indian experience. Before he went to India, Dr. Morehead learnt, while attending Louis' *clinique*, that there was a form of continued fever characterised by Peyerian disease. In India he made post-mortem examinations in all his fatal cases of fever, opening the whole tract of the intestines. He appears, to my mind, to have met with and recorded a case of True Enteric six years before Jenner separated this fever from Typhus,(b) although, as Richard Bright had called Enteric Fever "Typhus with bowel complication," Morehead called it "Typhoid Remittent Fever with Gastro-Enteritic Symptoms." While some of Jenner's most learned contemporaries died without admitting his discovery, Morehead accepted it early, when he wrote, in 1856, in his first edition, after describing case No. 32—"While retaining this case in its original position, I must admit that recent inquiry may suggest that it was true typhoid, not adynamic remittent."

I think it unquestionable that Bright and Morehead hold a very high position among those who almost succeeded in anticipating Jenner's grand discovery, nearly as Blackall, of Exeter, approached the demonstration of morbus Brightii.

In a valuable paper read before the International Medical Congress in August last,(c) Dr. Maclean writes:—"In the General Hospital at Madras, so far back as the year 1838, the year of my first connexion with India, in the old infantry barracks of Secunderabad, in the Deccan, of dysenteric notoriety, and on service in China, as far north as Nankin, I saw and treated cases of continued fever, extending over twenty days in duration, with the bowel complication above referred to, that, without hesitation, if I saw them now, I would diagnose as enteric fever. The symptoms were the same, the mortality exceeded that of fevers distinctly malarial, they were not amenable to quinine freely given, and death from hæmorrhage from the bowels was frequent, and the intestinal lesions were what we now recognise as characteristic of enteric fever. It was on my return to India, after two years' residence in Europe, that I first satisfied myself that such cases, in all their essential particulars, were none other than enteric fever, as that term is understood among you here. I then saw, treated, and dissected cases as distinctly enteric in their symptoms, progress, and in their post-mortem lesions, as any to be seen in the London Fever Hospital. It is useless to add that all the attempts since made to persuade the public and the profession that enteric fever is not a disease of India have had no weight with me."(d)

In the discussion which followed the reading of Dr. Maclean's paper, Dr. Mouat, A.M.D.,(e) mentioned a very interesting case. He did not say where it occurred, but the context appears to show that it was in India. It was that of a young officer of the 38th Regiment, in 1840, which commenced as an ordinary attack of fever, ending in peritonitis, with perforation of the bowel. As there was suspicion of poisoning, Dr. Mouat made a most careful post-mortem examination, and found the now well-known characteristic morbid signs of enteric fever.

It is most improbable that there was then any considerable prevalence of Enteric Fever in India. I notice that, reporting in 1838, the elder Dr. Mouat, an officer of great Indian experience, says:—"Here" [in India] "we have no Typhus, and in no instance do our fevers appear infectious, unless the Palu Fever or Plague be an exception."(f)

In our Indian career, Morehead, Maclean, Edward Goodeve, and I started with a full knowledge of the symptoms and post-mortem appearances of True Enteric Fever. We recognised it as a perfectly distinct entity in disease, although we gave it other names. I am perfectly confident that, unless by rare oversight on my own part, neither of us four overlooked cases of True Enteric, which were as rare in our experience as Emperor butterflies are in that of European entomologists. The main battle of our lives was with Malarious Remittent, and, when True Enteric came before us, we knew it almost as well as Jenner would have done, save that to us, or to me at least, its appearance was often unexpected, the presumption, at first sight of a case in India, being, "This is Paludal Remittent," the second thought only being, "Or is it Enteric?" Two years ago I said at the Epidemiological Society that, when I had a case of True Enteric fairly under treatment, I could no more mistake it for Paludal Remittent than an old fisherman could mistake a dog-fish for a cod.

Brigade-Surgeon J. Marston, a very able physician, who, being Secretary to the Head of H.M. British Medical Department in Bengal, has the amplest information from the whole of British India at his command, has lately told us(g) that "medical officers have latterly failed, in India, to satisfactorily trace out *the intimate connexion of the disease with filth-causes of specific infection*, with which, according to European authorities, it is invariably connected." Greatly as I esteem the authority of those who maintain the pythogenic origin of Enteric Fever, and freely as I acknowledge the striking character of the arguments upon which this doctrine has long rested firmly, I think that recent observation of the disease in India justifies a full reconsideration of the whole question in both countries. With this view I submit the following—*not as a dogma, but as a mere tentative suggestion.*

Is pythogenesis the *prime, predisposing, and true cause of Enteric Fever?* When I was young, this disease was prevalent on the continent of Europe, and comparatively very

(b) *Transactions of the Bombay Medical and Physical Society*, first series vol. vi., page 193.

(c) "On the Prevalence of Enteric Fever among Young Soldiers in India, etc."

(d) I am glad to find that my arguments against the, to me, absolutely incomprehensible doctrine that European soldiers, now serving in India, cannot suffer from Pythogenic Fever because they are not exposed to poisoning by drain or cesspool filth, receive powerful corroboration and extension in the facts and opinions on this point fully given in Dr. Maclean's memoir.

(e) *Transactions* of the Congress, vol. ii., page 541.

(f) *Madras Quarterly Medical Journal*, 1840.

(g) Cited by Fayrer, page 221.

care in England, where Typhus was very common. Richard Bright was a middle-aged physician of great experience when he first observed it, and had no name to give it, late in the year 1826. Within the last few days Sir James Paget has called attention(h) to the fact that "specimens of typhoid ulcers, preserved by Hunter, exist in the Museum of our College of Surgeons. Hunter died in 1793. Now Typhus is rare in London, except in Typhus years, and Enteric Fever is very common. In all times, but less at this moment than in any hour during the past millennium, cesspool and drain filth have tainted the air and the drinking-water of every city and country village in Europe. In their general bearing, the above remarks apply equally to India. To explain these facts in the history of this disease in the two continents, the opinion that its prime originative cause is an atmospheric or telluric influence—say a pandemic wave, —now invading countries and now leaving them, travelling now broadcast, now in narrow lines, demands attention. Thus the inhabitants of Paris and our army in Egypt have recently suffered from Enteric Fever outbreaks of unparalleled severity. All must admit that bad water was drunk both in city and in camp; but I cannot think that these two great visitations of pestilence were merely coincidental. I believe that both were determined by epidemic influence. Convincing as nearly everything which I have seen in the writings of Dr. Billings is to my mind, I cannot bring myself to think with him that "the term *epidemic condition* is simply another name for total ignorance."(i) All my experience combines in persuading me that disease-waves are constantly flooding the air which we breathe. In clinging to this antiquated idea, much enlarged as it has been, in modern times, by Lawson and others,—still greeting as a most welcome little stranger any microzyme which its discoverer may bring before me, as something really tangible, and worthy of having its morbific powers rigidly investigated,—I am willing to admit that I and all who hold the same view are agnostics and visionaries. But the blind and deaf man whose paralysed hand is dipped in the sea by another, and then held up to dry, must not deny that sea and wind are entities; and I am content to hold to this somewhat dark faith until I can hit upon a belief which admits of demonstration.

With regard to sewer-filth, may it not be merely the most valid and prevalent *exciting* cause not the *prime, true, and predisposing* cause? During the cholera season in Calcutta, almost any great imprudence, especially in diet, may excite an attack: not because that imprudence inoculates the system with cholera poison, but because a general atmospheric or tellnric influence having already placed the unknown prime cause of cholera there, the imprudence in diet, etc, is among those exciting causes which suffice to explode it, just as fulminate of silver is exploded if it chances to sustain a blow or shock, but may remain open on a plate for a week unaffected by other ordinary causes. Now, everyone in India recognises the fact that a dose of Epsom salts is, to the system doubtless already charged with cholera poison, nearly that which the blow of a hammer is to fulminate. A regiment of soldiers, eight hundred strong, in barracks at Fort William, pass through a cholera season with, say, half a dozen seizures, chiefly traceable to imprudence or exposure; but if, at any part of that epidemic season, an enemy could give each of those men half an ounce of Epsom salts, I believe that at least seven hundred and fifty of their number would be down with Asiatic Cholera within six hours. But no one would place Epsom salts among the *causes* of cholera. Thus, may it not be that when the Enteric Fever wave covers us, and enervates and predisposes our system, water or milk containing sewage fæcal matter is the most common and most potential *exciting* cause or explosive—all those who remain outside the verge of that wave, as well as many who are within it, remaining proof against this special mode of poisoning by drain and cesspool filth, as I believe we were long ago in England and in India, and may be again whenever this epidemic alters its course? Some may say, "Further discussion is needless; this question has long been settled in England!" To this I reply, "It is probably about to be reconsidered in India; and, whatever the result may be, the inquiry will assuredly tend to advance our knowledge."

I shall certainly not coincide in the opinions which may be arrived at by my brethren of the British Army if, at starting, they deny that, throughout the length and breadth of India, the European soldier, when on liberty in the bazaar, is not liable to the calamity of quenching his thirst with draughts tainted by fæcal matter—nay, possibly by the excreta of native patients suffering from True Enteric Fever.

When, with abundant statistics and notes of post-mortem examinations at hand, medical men cannot agree whether an Indian fever is Paludal Remittent or True Enteric, what I may term the PERFORATION TEST ought to come in as a useful aid. Twining, Annesley, Ranald Martin, Morehead, John Macpherson, have all described lesions at the lower part of the small intestine in cases of what they regarded as Paludal Remittent. How came it, then, that they, Kenneth Mackinnon, Edward Goodeve, hundreds of other able Indian observers, and I, among the thousands of cases of Paludal Remittent which we treated and were prepared to write upon whenever we met with anything unusual, never saw or described a case of intestinal perforation occurring in Remittent Fever, this being an event looked for and dreaded in every case by all who know and treat True Enteric Fever?

(*To be continued.*)

(h) In the first Bradshawe Lecture at the Royal College of Surgeons.
(i) *Transactions* of Medical Congress of 1881, vol. ii, page 537.

QUERIES IN MEDICAL ETHICS.

By WILLIAM FRASER, M.A., M.R.C.S. Eng.

(*Continued from page 719.*)

Q.—Is it the duty of a medical practitioner to keep a record of his professional work and experience?

A.—Yes; it is both his duty and for his interest to keep such a record or records, and as regularly and correctly as he can; and the habit of doing so, if once acquired—which it can easily be—will cost him but little time and trouble, and will abundantly repay him both in substantial profit, and in the satisfaction and comfort accruing to him from the progressive accumulation, the preservation, and the availability of his stock—stock-in-trade, as it may be called —of skill and experience.

Q.—In what way may these records be kept; and first as regards professional advice, attendance, and visits to patients?

A.—Every medical practitioner is provided, or ought to be provided, with a "visiting list," or book ruled in columns for every day of the year, in which a daily record may be made, by crosses and other understood marks, in the appropriate column and space opposite to the patient's name, of all visits, operations, consultations, and other special services, indicating also whether made at the house of the patient or that of the practitioner. This book alone can often be made to serve as a *sufficient* record of all accounts or fees paid and due (although a special fee- or receipt-book is also necessary), as well as a memorandum of professional visits and other work to be attended to. But, if necessary, a separate book or journal of accounts can be made up from it, which will enable the practitioner to conduct his practice in a more commercial, which I suspect is not the worst way, if such be his preference. From the "visiting list" the practitioner will be able also to make up his daily list or programme of visits and work, which, written on a small slip of paper, he should carry in his waistcoat pocket for reference when necessary. When a general practitioner supplies or dispenses his own medicines, of course a regular system of bookkeeping is necessary.

Q. Of prescriptions given to patients, is it advisable to keep a record?

A. Yes; of such as are of importance in connexion with the treatment of a case, or for other reasons; and the most effectual and ready means of doing this is by employing the ordinary commercial transfer-books now in general use, of which one of size and construction suitable for the purpose could be carried in the pocket, and another lie in the consulting-room of the practitioner. By this means *verbatim* copies (*fac-similes*) of prescriptions can be preserved and become accessible for reference at any time, and also constitute a repertory from which the possessor may derive important suggestions and assistance in his future practice.

Q. What kind of record of cases or of other professional subjects is it advantageous or necessary for a medical man to keep?

A.—Without referring to those holding the position of authors, of consultants, or of professors or teachers in medical schools, who necessarily require by every means in their power to educate themselves for their special duties, it may be said that almost every medical man will find it for his advantage to take occasional notes or memoranda on matters affecting his practice and profession. The most convenient way to do this is by means of a capacious common-place book, in which he should, at convenient moments of his leisure, write down, fresh as they occur, and with dates, any remarks which may be worth preserving that relate to the history and treatment of his patients' cases; also such therapeutic or other useful professional information as he may chance to come upon in his reading or his intercourse with his brethren or others; and likewise any such ideas as may arise in his own mind, either through special direction and study, or from accidental suggestion or impression, and of which he may wish to retain possession. A volume, or series of volumes, composed in this manner should have their contents indexed and concatenated in such a way as that they would be available for future reference, or for the separate, continuous, and complete elaboration of any of the subjects to which they refer. The record of midwifery cases, or indeed of any specialty in practice to which a practitioner may attach himself, should have a separate and special book set apart for it. Although this sort of bookkeeping may at the time appear to be unnecessary and unremunerative, the practitioner should reflect that, in consideration of the powers, responsibilities, and privileges entrusted to him by the State, he is in reality fulfilling a duty to himself, to his patients, and to the public, and should leave it to time to evolve and to prove the advantages resulting from it. His discretion, of course, should be used in selecting for insertion only such important cases and such salient points and circumstances as have an interest, either immediate or prospective, attached to them. The great bulk of his practice doubtless would be excluded from this category, for—

"To physic fools and chronicle small beer"

would be quite undeserving of any such record. He should, moreover, be on his guard not to insert anything that could be understood by another as compromising the honour or interests of his patients or others.

Q.—The powers, privileges, and responsibilities belonging to the medical profession having been several times alluded to, will you kindly explain what these are, and how they affect the public and the profession?

A.—They are of two kinds—those which are inherent in the art of medicine itself, and those which have been imparted to or grafted upon it by external circumstances. Thomas Carlyle says of medicine: "It is radically a sacred profession and connected with the highest priesthoods, or rather itself the acmé and outcome of all priesthoods, and divinest conquests of intellect here below." A still higher and older authority (Homer) says—

"A wise physician skilled our wounds to heal,
Is worth ten thousand to the public weal."

And if to the public weal, by consequence also to the public wealth, or to put it in slightly altered words—

"A wise physician skilled to guard our health,
Is worth ten thousand to the commonwealth."

The restoring of life and health and happiness to one's fellow-creatures, while it rouses into action the highest faculties of the intellect, and the tenderest sympathies of the heart, brings respondent feelings into operation on the part of the benefited; and the result, in work, remuneration, love, honour, obedience, and friendship, constitutes such reward as few other professions or occupations in society can lay claim to. And within recent times, legislation, giving effect to public and professional feeling, has done much to improve the status of the profession in society. The benefit of a compulsory, complete, and high-class professional education, guaranteed by the test of a strict and impartial examination, and authenticated by a corresponding title or degree, and also by statutory registration, must be as reassuring and beneficial to the public, as it is self-assuring and in every way advantageous to those who have successfully passed through the ordeal. This improved system of education has led to, and made practicable, the opening up of the public services, by means of open competition, to those who are found the best qualified for them. In this way appointments in the Army, the Navy, the colonies, and the numerous medical departments in the civil and municipal services at home, with all their advantages of fixity of tenure, liberal remuneration, honourable status, and pensions on retirement, have been brought within the reach of all young members of the profession who have the ability to achieve a sufficiently high place in the respective competitive lists of candidates for these appointments. The Medical Department of the Poor-law, too, is coming to be taken advantage of, and to be worked in a way that must tend to give to the public in all parts of the country the advantage of well-qualified medical attendance, and to the junior members of the profession a field and a prospect of practice commensurate with their qualifications. On the occasion of a parochial medical officer being wanted in a parish, the ratepayers, acting through the board of guardians, have only to fix the salary (supplementing it, if necessary, by private contribution) at such a sum as will, when the vacancy is made known by suitable advertisement, enable them to choose from a list of candidates one who shall be acceptable to, and competent to attend, the other residents, as well as the poor of the district. In this way the inhabitants of a district can exercise the power, which of right belongs to them, of choosing their own medical attendant, instead of being saddled with any mercenary or incompetent adventurer who might pander to the views of a niggardly board of guardians. The high-class and wide-embracing character of the present system of medical education fits it as the best nursery for rearing and qualifying experts in various departments—naturalists, microscopists, medical missionaries, analysts, sanitary and food inspectors, chemists, botanists, electricians, superintendents of lunatic asylums and of philanthropic, scientific, and industrial establishments, etc.; and hence into these departments it comes that so many members and licentiates of the profession are being continually drafted and transplanted.

These may be taken as some of the advantages and privileges of the medical profession. The reverse side of the picture is not so pleasant to look upon, but it too, in warning, must be held up to view. Failure to pass through the legitimate portal, or even any of the posterns that admit to the field of practice, or the surreptitious entrance into it by illegitimate means; non-adaptability to the surroundings of one's position; deficiency of those qualities, whether of hand, of head, or of heart, that are necessary for success in practice; illegal or dishonourable conduct, whether in regard to patients or to brother practitioners; culpable neglect to do one's utmost for the benefit of patients; a persistent attempt, by means of newspaper or other public advertisement, to promote practice or the sale of nostrums; addiction to habits of intoxication or immorality; unfaithfulness or disloyalty to patients as regards professional confidence;—these are some of the breaches of duty and responsibility which students, and indeed practitioners in general, should understand to mean blasted prospects, degraded position, loss of practice, disappointment, demoralisation, dishonour, waifdom, poverty, and often death itself.

The Birmingham and Midland Eye Hospital.—The old building occupied by this charity having been found inadequate to the requirements and demands of the present time, it was resolved, some while ago, to build a new hospital, at an estimated cost of £20,000. Many munificent donations have already been received—one to the amount of £5000, from Mrs. Barrs. The trades of Birmingham conduce in a special degree to eye disease and accident, but it is probably from the surrounding districts that the patients mainly come.

Fatal Football Accidents. The evidence adduced at the inquest touching the death of a young man at Lower Tooting, who died from injuries sustained whilst playing at football on Wandsworth-common, showed that death resulted from concussion of the brain. Deceased was struck by the ball on the chest with such force as to knock him backwards on his head. Verdict, "Accidental death." In another case last week a youth engaged in an association football match, at Bolton, was struck violently on the head by the ball, and died almost instantly.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CASE OF EMPYEMA TREATED BY FREE INCISION

(Under the care of Dr. FINLAY.)

THE following case illustrates some points of interest in the diagnosis and treatment of empyema:—

Henrietta R., aged thirty-two, was admitted on May 10, 1882. Respecting family history she stated that a brother had died of pleurisy, and that three cousins had died of consumption. Her mother had suffered from rheumatism, and had died of dropsy, presumably the result of heart disease. The patient herself had an attack of acute rheumatism at the age of twenty, and four years ago suffered from pleurisy on the left side. For six weeks before admission she complained of a catching pain in the left side accompanied by a cough. Four weeks ago the pain had become much worse, and she coughed up some blood. Since then she had suffered from feverishness, cough, and sweating, with much pain on breathing, shortness of breath, and looseness of the bowels. She had no rigors.

On admission she was described as a pallid, somewhat emaciated woman, with hot and dry skin, complaining of pain in the left side of the chest, shortnesss of breath, and cough. The pulse numbered 108, and was regular; temperature 101·6°; respirations 28. The tongue was clean; the alæ nasi acting in respiration. In the chest the expansion was diminished on the left side and the resonance impaired, the impairment in front being most marked towards the base and under the outer third of the clavicle. The left back was dull throughout; vocal fremitus was abolished at the base, and breath-sounds inaudible below the angle of the scapula. Above this level they were feeble and tubular in character, and the voice-sounds nasal. Whispered voice-sounds were heard over the dull areas. In front, scanty creaking and crepitant sounds were heard with diminished breathing, and on coughing a bulging forwards was observed in the third left interspace at the edge of the sternum. There was no œdema of the chest-wall. Over the right side of the chest the resonance was good, and the breath-sounds rather exaggerated. The heart's impulse was not seen nor felt; the sounds were heard at the normal apex position, but most distinctly just to the left of the ensiform cartilage. Elsewhere than in the chest nothing abnormal was found. The urine was acid, abounded in lithates, and was free from albumen. In the evening her temperature was 102·6°; the bowels had been opened four times during the day, the motions being loose and offensive.

On the following morning (May 11) it was noted that the bowels had been opened four times in the night, and that she had sweated profusely. In the afternoon an exploratory puncture was made into the pleural cavity, the trocar being introduced in the eighth interspace in the line of the angle of the scapula to a depth of two inches and a half, but no fluid was found, although the cannula could be freely moved in all directions.

During the next few days her evening temperature remained high, reaching 104° on one occasion, and the diarrhœa and sweating continued. On the 16th another exploration was made in the axillary line in the seventh interspace to the depth of an inch and three-quarters, and a syringeful of thin, grey-coloured, fœtid, purulent fluid withdrawn.

It was accordingly decided that a free incision should be made into the pleural cavity, and this was done on the following day (May 17) by Mr. Morris, the place chosen for incision being the sixth interspace in the anterior axillary region. A considerable quantity of very stinking sero-purulent blood-stained fluid, containing shreds of lymph, was thus evacuated. The operation was done under carbolic spray: the pleura washed out three times with a solution of carbolic acid (one in eighty), the fluid latterly coming out almost clear: a gum-elastic catheter for drainage introduced, and antiseptic dressing applied.

In the evening the temperature was 98·4°. On the 18th she was much troubled with cough, and sweated a good deal. The dressings were renewed under the spray, and the pleura washed out as before. The evening temperature was only 99°.

On the 19th it was noted that the cough had almost gone, and that she had no pain and very little sweating; there was but little pus on the dressings, but the smell was still offensive. The notes of the next few days present a record of slow but steady improvement, cough and sweating diminishing and appetite improving. The temperature also seldom rose above 99°.

On May 28 it was noted that the discharge of pus was still further diminished, but was still offensive. As to the physical signs, there was a fair amount of resonance over the left side, except in the vicinity of the opening (where some friction-sounds were heard) and at the extreme posterior base. Coarse breath-sounds also were audible with some rhonchus both on this and the other side of the chest.

On the following day (29th) the pleural cavity was washed out with a weak solution of iodine, and she was ordered to be carried out into the garden when the weather was fine. The discharge now became very slight, and was very slightly, if at all, offensive. About this time, also, friction-sounds began to be audible all over the affected side, and the drainage-tube was gradually shortened. As she complained at intervals of great pain passing through the left side of the chest, which it was thought might be due to the stiffness and hardness of the drainage-tube, this was removed on June 6, and a soft, flexible india-rubber one introduced in its place. After this the pain was not complained of, and she slept better. This tube was also shortened by half an inch or an inch from time to time, and she was now able to be up. Her weight was found to be 6 st. 13 lbs.

On June 19 it was found that the tube had slipped out of the opening in the chest, and could not be replaced. It was accordingly left for a few days longer in the external sinus, and then removed altogether, in the hope that as the discharge was now so slight that it might be accounted for by the external wound alone, the necessity for further drainage might have disappeared.

The external wound closed readily, and she was discharged on June 30, expecting to go to a convalescent home a few days later. The following note was made of her condition on discharge:—The left shoulder is about an inch lower than the right, and the left side moves less freely in respiration. The wound in the chest is closed, and presents a track of exuberant granulations running in the direction of the interspace. On percussion over the left back the resonance is found good down to the angle of the scapula, below which it is somewhat impaired, and for two inches at the extreme base almost, if not quite, dull. The breath-sounds are good to where the resonance is impaired, becoming feebler towards the base, where they are lost over the dull area. Over the left front, resonance and breath-sounds are uniformly good; but an occasional creak is heard on deep inspiration about the upper and inner part of the mammary region. At the right apex anteriorly, breathing is somewhat bronchial, and expiration prolonged; over both backs rhonchi are well heard, most marked on the right side. Her weight is 7 st. 5 lbs.

Pending her removal to the seaside she came to the hospital every other day to have the wound dressed. At her visit on the morning of July 10 she stated that the wound had broken out during the previous night and discharged a considerable quantity of foul-smelling pus. She was accordingly readmitted for further treatment. Her temperature then was only 98·2°; pulse 84; respirations 18. At the anterior part of the line of incision in the chest-wall there was a very small opening, discharging fœtid pus, into which a probe could be passed to a distance of about three inches. The cough had become troublesome again, and the expectoration copious and muco-purulent. She had a return of the sweating, and the appetite was impaired.

Next day the chest was again opened as before. No pus escaped at first, but a No. 10 gum-elastic catheter being introduced, and the patient coughing, a small quantity of very fœtid pus and blood was expelled. The cavity was washed out with iodine solution, and carbolic dressings applied. The evening temperature was 97·6°. After this it was found that any injection into the pleural cavity brought on at once such a paroxysm of coughing that it had to be given up, and the wound simply dressed daily. The discharge became at once sweet and of small amount; the temperature was uniformly normal, and she improved in

general condition rapidly. Her weight, which had been 7 st. 7¾ lbs. on July 27, became 7 st. 11 lbs. on August 3, and 7 st 13¼ lbs. on August 11. The tube was gradually shortened, and finally removed on August 7, and she was sent to the seaside on August 11. On her return to town, a month later, she showed herself at the hospital, when her chest was again examined. Good resonance and breath-sounds were found to within about two fingers' breadth of the base, no adventitious sounds being heard. There was no displacement of the heart, and the left shoulder was but little depressed. She had gained half a stone in weight, but was still troubled at times with slight cough.

It may be mentioned that during her stay in the hospital the medicinal treatment consisted for the most part of quinine and iron, cod-liver oil with malt extract, morphia injections for the relief of pain, a small amount of stimulants (port wine chiefly), and a liberal diet, which, after the first few days, a good appetite enabled her to dispose of.

Remarks.—The case just narrated presented all the classical physical signs of pleural effusion. That the fluid was purulent was rendered highly probable by the sweating, wide range of temperature, and offensive diarrhœa, as well as by the patient's pallid and pasty appearance; and this was rendered certain by the result of the second exploratory puncture. Why the first should have failed it is not easy to say. The most obvious explanation is, that, being made at a low level posteriorly, the cannula became blocked by coagulated fibrin adherent to the wall of the thorax. According to Frærtzel this is not an uncommon event when the chest is punctured posteriorly, but seldom occurs at the anterior wall; and the experience of this case certainly tends to corroborate his remark, the second exploration being made much further forward. So far as my experience goes, the failure to find fluid is more common also in purulent than in simple sero-fibrinous effusions, perhaps because in the former the layers of lymph deposited on the pleural surface are thicker and more tough, and if so, more apt to be driven before the trocar and cannula. As to treatment, one of the most difficult questions to decide in such cases is when the drainage-tube ought to be removed. When it accidentally slipped out in this case the discharge was so slight and sweet that it seemed right to let the opening close. In any case if the tube had to be replaced a fresh operation would be necessary; and it was hoped, for the reasons stated and others, that it might not be necessary. This hope, however, was not realised, and the operation had to be repeated. Probably no definite rule on the subject can be laid down, although the character and quantity of the discharge, together with the results of probing with a soft catheter, will guide us to a considerable extent. On general grounds it is, of course, better to risk allowing the tube to remain in too long than to remove it too soon.

Ossification in Muscle.—At the meeting of the Vienna Medical Society held on the 1st inst., Professor Podratzki exhibited a soldier, the subject of traumatic "myositis ossificans," the result of an injury during gymnastic exercise. The day following the accident there was violent inflammation of the muscles in front of the upper arm. This was treated at first with cold applications, and later on by *massage*. In the course of the second week after the traumatism a hard, round, movable, circumscribed swelling was observed in the bend of the elbow, and this was followed by complete ossification of the brachialis anticus. The formation of bone reached from the elbow almost up to the shoulder-joint, increased in density, and appeared to be continuous with the periosteum. The superficial part seemed to be of gristly consistence, the deeper of bony hardness. No good was obtained from any kind of treatment. The cases of a like character in which a cure resulted from the use of mercury and iodide of potassium were probably of a syphilitic nature. In the discussion that followed, Prof. Weinlechner said that he had observed two cases of formation of bone in the front of the lower part of the thigh, likewise as the result of an accident. Professor Kundrat asserted that such ossifications did actually occur in the muscle, and the new growth took on the form of the belly of the muscle, even showing furrows corresponding to the fasciculi. He possessed many preparations showing such occurrences in almost all muscles. They are most likely to be found in strong men. They may become in time consolidated with the bone, and then may be considered to be primary exostoses.

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The Medical Times and Gazette *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, DECEMBER 23, 1882.

WORKING OF THE ADULTERATION ACT DURING THE YEAR 1881.

From the report recently issued by the Local Government Board, we learn that last year 17,823 analyses were made in England and Wales, being about 150 more than in 1880. Of these, 5039, or nearly one-third—and, curiously enough, exactly the same number as in the previous year—were made in the metropolis.

The Board had urged the appointment of analysts in those places where the Act had not been complied with, but only a few of the authorities had paid any attention to their representations; and in many cases where analysts had been appointed the Act had nevertheless remained a dead letter. In sixty-six boroughs not a single analysis had been made, and in twelve counties only fifty samples in all were analysed.

The town councils of the smaller boroughs show the greatest unwillingness to admit the suspicion that adulteration is practised within their jurisdiction, though the Local Government Board urge that the Act is intended as much for the protection of honest tradesmen as for that of the public. In one borough, which only yielded to repeated representations, three-fourths of the samples examined were found to be adulterated. It has long been found that fraudulent tradesmen soon become acquainted with the faces of the inspectors, and will often recognise a policeman in plain clothes, so that, after a few months, further attempts to obtain samples of adulterated articles for analysis are futile. The Board therefore call attention to the thirteenth section of the Act, which permits of the purchase being made by a deputy, and to the decision in the High Court of Justice (Stare *v.* Smith, 45 J.P., 141) that the subsequent proceedings in such a case need not be undertaken by such assistant, but that the inspector who employed him may be regarded as the actual purchaser. Many a man or woman would be willing, for a trifling consideration, to act as deputy to an inspector, but would shrink from the publicity and trouble of appearing in court as prosecutor.

On the whole, adulteration seems to be on the decline, especially in London, except as regards milk, the percentage of adulterated samples of all kinds having fallen, between 1877 and 1881, from 19·1 to 14·7, and of milk from 24·1 to 19·5, in England and Wales. In London alone the percentage of all articles last year was 12·4, and of milk 23·4. But it is difficult to altogether avoid feeling rather suspicious of the correctness of the returns as to the adulteration of milk in the different metropolitan districts; for, since there can be no possible relation between the areas of the several milk-supplies and the boundaries of the parishes, it is hard to believe that while in some districts 40, 50, or even 70 per cent. of the samples examined were found to be adulterated, in one parish (that of St. James's, Westminster) all the sixty samples really were, as reported, pure.

Cases have occurred in which, after a milkman has been convicted, he has drawn milk from the cow, in the presence of the magistrate or inspector, of still lower quality, though evidently genuine (once, indeed, containing only 8 per cent. of solids). After such an experiment some local authorities have expressed themselves unwilling to undertake further prosecutions. The Local Government Board, however, suggest that under these circumstances a case might be made out that such milk was not an article of the "substance and quality" of that usually sold under the name—a suggestion which we approve, provided it be understood that the poor milk may be legally sold at a lower price than that asked for good milk. The Board feel the difficulty of fixing a standard which shall not be so high as to exclude much *bonâ fide* milk, nor so low as to class as genuine that of the oldest and worse-fed cows in the country. They express the wish that science could devise some means of distinguishing between the water natural to milk and that fraudulently added. We have on a former occasion referred to the production by dairymen of "fore milk," containing often only 10 per cent. of solids, as evidence in their defence; and we have somewhere seen a suggestion that since milk contains but ·005 parts per 1000 of sulphuric acid, any excess of sulphates would indicate the fraudulent addition of water. The amount of water fraudulently added averages about 20 per cent., but in some instances has been as high as 60 or 70 per cent., and it is occasionally of a very foul kind. The Board allude rightly to the gross insufficiency of the fines imposed to check the practice of adulteration, and advise the more frequent examination of samples at the railway-stations, etc., in the interest not only of the public, but of the retail dealers themselves.

The proportion of butters found to be mixed with other fats has fallen from 18 per cent. in 1880 to 14 per cent. in 1881. Possibly the value of butterine as a wholesome article of food is beginning to be recognised, and the artificial compound sold under its proper designation. But butter containing 19 per cent. of water, although no foreign fats be added, is a far grosser fraud on the buyer. Water is retailed by the dairyman at 4d. to 5d. the quart, but the Southampton butterman was getting 1s. 4d. per lb.—equal to 3s. 4d. per quart! Coffee is still extensively adulterated, chiefly with chicory, of which the "fancy" kinds, made up in tins and labelled "French coffee," contain 60 to 70 per cent. Again, grocers persist in assuming that by "coffee," without the qualification *pure* and *unmixed*, the customer understands and expects a mixture. Cocoa, too, is largely falsified, the description "homœopathic," "prepared," etc., concealing the adulteration. Sometimes 80 per cent. of the bulk is made up of starch and sugar, the mixture being nearly devoid of fat, and poor in the albuminoids, of which real cocoa contains not less than 12 parts per cent. It is, therefore, of a relatively very low nutritive value, and dear at the price asked. That the dilution of spirits with water still continues, and that much gin has but 20 per cent. of alcohol, is not from all points of view a matter for regret. The so-called adulteration of mustard is as prevalent as ever, and a relaxation of the law in this respect is much to be desired; a certain proportion of wheaten flour is positively an advantage, and only when a standard to be fixed by law or consent is overpassed should it be considered an adulteration. The percentage of samples of drugs found to be adulterated is as large and as discreditable as ever.

SENATOR ON THE HYGIENIC TREATMENT OF ALBUMINURIA.

Professor Senator's utterances on the subject of albuminuria are always well worthy of careful attention, and he recently delivered before the Berlin Medical Society (*Berlin. Klin. Woch.*, No. 49) an address on the hygienic treatment of albuminuria, which will be studied with advantage.

In the treatment of the various forms of Bright's disease the symptom albuminuria receives the greatest attention, not because the mere loss of albumen is ever likely seriously to interfere with the nutrition of the body, but rather because it is a means whereby we may test the existence and measure the degree of renal disease. Senator has written and lectured against the notion that serious ill-health can result from simple excretion of albumen; he shows how, even in marked cases of albuminuria, the loss of material is hardly ever very great, and might be easily compensated, were that all that was desired, by the use of a somewhat, but not largely, increased quantity of meat. The chaos into which we should be thrown, in regard to our knowledge of renal disease, had we no such guide as albumen in the urine affords, is set forth by Senator. Another ground for insisting on the importance of albuminuria from a point of view of prognosis may be found in the idea that in many cases the separation of the proteid may act as an irritant to the renal tissue. We do not know this for certain as regards the ordinary albumen of urine, but Lehmann and Stokvis have proved it for egg-albumen. They showed that when some egg-albumen is injected into the blood, more albumen is excreted by the kidneys than was originally introduced—not, of course, egg-albumen, but the natural proteid bodies of the serum (serum albumin and globulin). It is not improbable also that peptones, and perhaps some of the other derivatives of albumen, are capable of acting as irritants in the same way. The albumen of urine is not quite the same as that of the blood-serum; and so it may be that this may likewise act as a foreign body, or as a poison, to the renal tissue. Turning from these considerations to the treatment of albuminuria, Senator remarked on the general uselessness of drugs in this regard. New remedies are proposed, which are attended with no better success than old ones. Tannin and other astringents, fuchsin, pilocarpin, and acids—all have been praised in their turn. Iodide of potassium has seemed to do good in some cases of chronic nephritis, in respect of the albuminuria, but not of the other signs—*e.g.*, dropsy, and asthmatic attacks, against which we possess powerful remedies. We may very easily deceive ourselves about the value of medicines in acute Bright's disease, and also in the chronic forms of renal affection. The former has an innate tendency to recovery, and the latter of themselves fluctuate so much in their course, from day to day and week to week, that what has been regarded as the effect of a drug, really might have been nothing more than a temporary improvement of a spontaneous nature. The value of mere hygiene in the treatment of maladies of the kidneys is instanced (we are following Senator all the time) in the different behaviour of the patient's illness under different circum-

stances. For instance, a case with or without treatment as an out-patient showed no improvement, but when taken into the hospital, with the same treatment, mended rapidly. Having thus thoroughly introduced his subject, the Professor next dealt with the individual factors comprised under the term hygienic treatment. Under the question of diet it is very important to ascertain the influences exerted on the albuminuria by the state of the digestion and the kind of food used. With regard to the first of these points, it has been established by recent observations that the process of digestion is attended with an increase in the excretion of albumen in the case of patients already passing albumen, or with a return of that condition when it had passed away; indeed, as Senator has insisted in his work on "Albuminuria in Health and Disease," the full digestion of a large meal in healthy individuals is often attended with transient albuminuria. The practical outcome of this doctrine is that cases of Bright's disease should be fed with small quantities frequently, rather than with large meals at long intervals. Much more important, however, is the choice of the diet. The older physicians were aware of this, no doubt, but they were not so accurately aware of it as we are. The experiments of Lehmann and Stokvis have demonstrated how irritating ordinary egg-albumen is, not only when injected into the blood, but also when given by the stomach. Total abstinence in the matter of eggs is therefore recommended. But also other proteid bodies, especially meat, should be given in a sparing manner, the loss of albumen having been shown never to be very great for long together. Senator has observed albuminuria after the excessive use of meat diet. Christison has noted the same from the employment of cheese. Lichtheim has pointed out another danger attached to the use of food rich in proteids—the danger that the formation of much urea may lead to its accumulation in the blood, the diseased kidneys being less able to excrete the products of metabolism than sound ones. Fleischer has proved the same for phosphoric acid; and Senator, by induction, extends the notion to the other end-products of the metabolism of proteid bodies. In consideration of the inability of diseased kidneys to separate out these products of the destruction of proteids, he recommends the use of meat poor in albumen—*e.g.*, veal, young poultry, and *white* flesh generally, including fish. The vegetables with scanty albumin, as greens, salads, fruits, are to be recommended, rather than the more fully albuminous peas and such like. Individual cases, however, require individual treatment. The digestion must be taken into consideration, and the use or not of fatty foods will largely depend on the capacity of the patient's digestion for such material.

With regard to drink, it has generally been ruled that alcohol had better be avoided, and Penzoldt has recently shown that ethyl and amyl alcohols may cause nephritis in dogs. Senator advises the rejection of brandy unless there be special indications for it; but he has generally allowed the use of red wine. Beer ought not to be taken. Spices and other strong aromatics, and any obvious dietetic error, should all be carefully guarded against. Dr. Senator is in favour of a nearly exclusive milk diet; but he shows, by reference to Voit's work on diets, that pure milk does not contain quite the right amount of carbo-hydrates, and therefore recommends the addition of some white bread, or something of that kind: such a "milk-cure" he regards as of high value.

The subject of mineral-water cures is touched upon, and the conclusion that some patients are benefited by saline, some by alkaline-saline waters, whether warm or cold, is arrived at. Bath cures have an undoubted action on the exchange of material, but their chief effect is locally on the skin. Senator then proceeded to speak of the second part of the hygienic treatment, the care of the cutaneous functions. The intimate relation existing between the kidneys and the skin was dilated on, and the fact that Leube had detected albumen in the perspiration was mentioned. The circumstance that the cutaneous tissues become impregnated with saline salts after repeated baths is alluded to as explaining the turgescence and increased perspiration of the skin observed after such treatment. Senator has maintained that strong muscular exercise increases albuminuria; hence the importance of bodily rest. The value of fresh air is not to be lost sight of, and, as much physical exertion is contra-indicated, carriage exercise is the proper substitute. The psychical aspect of the treatment must also be attended to. Sudden emotions may enhance the excretion of albumen. Menstruation has been observed to augment albuminuria: it need not be said the urine examined was free from the menstrual blood. The explanation of such augmentation may be sought for in local congestion, or there may be an increased exchange of material throughout the body during menstruation. The good effect of a change in climate in kidney disease is to be attributed not only to a change of air and water, but also to other points which have been already mentioned. The southern dry climates are the most advantageous, such as the Riviera or Cairo; and in warmer regions there is this favourable feature, that the diet is not so much animal as vegetable. Where change of clime is not possible, residence in a well-managed, comfortable hospital may stand in good stead.

VITAL STATISTICS OF ENGLAND FOR THE SEPTEMBER QUARTER OF 1882.

It would appear by the quarterly return of the Registrar-General for the three months ended September 30 last, that in England and Wales, during that period, the number of births registered was 220,118, showing an increase of 4152 upon the number returned in the corresponding quarter of last year. The annual birth-rate was equal to 33·1 per 1000 of the estimated population, and although 1·4 below the average rate in the ten preceding corresponding quarters, it showed an increase of 0·2 upon the exceptionally low rate of 1881. The fluctuations in the birth-rate, as shown by the returns furnished by the different counties, ranged from 26·7 in Huntingdonshire and 27·3 in Herefordshire, to 36·4 in Staffordshire and 38·9 in Durham. It was 33·6 in London, and averaged 35·6 in the twenty-seven large provincial towns. The *natural* increase of the population of England and Wales—that is to say, the excess of births over deaths—which had been 87,782 and 105,762 in the third or September quarters of 1880 and 1881, declined to 102,004 in the corresponding period of 1882. During the quarter under notice the number of deaths registered in England and Wales was 118,114, equal to an annual rate of 17·7 per 1000 of the estimated population: this death-rate was no less than 1·5 per 1000 below the average rate in the corresponding quarters of the ten years 1872-81, but exceeded by 0·9 the exceptionally low rate in the third quarter of 1881. The rates in the several English counties ranged from 12·5 in Dorsetshire, 13·1 in Westmoreland, 13·6 in Wiltshire, and 13·8 both in Shropshire and the extra-metropolitan portion of Surrey, to 20·8 in Northumberland, 21·2 in Lancashire, and 22·0 in Durham. The total number of deaths attributed to the zymotic class of diseases amounted in this quarter to 20,825, corresponding to an annual rate of 3·13 per 1000, against an average rate of 3·94 for the ten preceding third quarters Diarrhœa was the most fatal, with a total of 10,041 deaths; and scarlet fever was the next highest on the list, with the large number of 3164 victims. It is satisfactory to be able to record that upon the present occasion small-pox is respon-

sible for the lowest fatality attaching to the seven principal zymotic diseases, only 209 deaths having been registered from this cause during the quarter under notice. This mortality corresponds to an annual death-rate of 0·3 per 1000, against an average rate of 0·10 for the ten preceding third quarters, and was lower than in any quarter since the end of 1880. Of the 209 deaths, no less than 63 occurred in London or in its Outer Ring, and 5 in the adjoining home counties. Of the remainder, 50 occurred in Staffordshire, mainly in the sub-districts of Wednesbury and Tipton. In the borough of Newcastle-on-Tyne there were 21, and in Birmingham 9 deaths; in the sub-district of Gateshead 15, and in the district of Nottingham 11. The proportion of uncertified deaths very slightly exceeded that recorded in the preceding quarter; it was only 1·2 per cent. in London, but averaged 4·3 per cent. in the rest of England and Wales. While the percentage of uncertified deaths did not exceed 1·3 in the extra-metropolitan portion of Middlesex, 1·6 in Hampshire, and 1·7 in the extra-metropolitan portion of Surrey, it ranged upwards to 6·2 in Cornwall and Cumberland, 6·7 in Herefordshire, and 6·9 in Durham. In Wales 9·9 per cent. of the causes of death were uncertified, showing a decline from the percentage in the previous quarter; the proportion was 9·7 in South Wales, and 10·1 in North Wales. This quarter may be said to have shown a marked improvement in the number of hours of bright sunshine recorded at Greenwich, namely, 420·4. The number was identical with that registered in the corresponding period of last year; but the average amount in the third, or summer, quarters of the five years 1877-81 was only 412·6 hours.

THE WEEK.

TOPICS OF THE DAY.

THE recent decision in the Court of Appeal, in the case of Dobbs *v.* The Grand Junction Waterworks Company, is a very important one. It will be remembered that the question at issue was whether the water-rate was to be assessed on the rateable value of the premises supplied with water as appearing from the poor-rate assessment, or upon the gross value. The magistrate before whom the case was originally brought took the Company's view that the gross annual value was intended, and decided against Mr. Dobbs, who thereupon appealed to the Queen's Bench Division. It was held by Mr. Justice Field and Mr. Justice Bowen that the water-rate must be computed on the rateable value of the premises as appearing from the poor-rate assessment, and they accordingly gave judgment in favour of Mr. Dobbs. The Company then carried the case to the Court of Appeal, consisting of the Lord Chief Justice, and Lords Justices Baggallay and Lindley, with the result that the decision of the Court below has been reversed. There was some difference of opinion between the judges as to whether the second of the two Acts under which the Company claim has repealed the earlier; but they were unanimous in thinking that the words in the Act of George IV., "actual amount or annual value," mean the same thing as "annual value" in the 15th and 16th Vict.—namely, the amount actually paid as occupation rent, or, if (as in Mr. Dobbs's case) the house is not let to an occupying tenant, the amount, as nearly as can be ascertained, which such a tenant would pay for it. In acceding to a request of the Company's counsel for leave to appeal, Mr. Justice Field is reported to have said—"This is a very important question indeed, and one capable of giving rise to a great deal of trouble"; it will not, therefore, be any matter of surprise that it is confidently expected that the question will be submitted to the House of Lords for final decision. Whatever may be the true construction of the Acts of Parliament as they stand, it is difficult to imagine that it was the intention of the Legislature to give the water companies the power of charging on a higher basis than that which determines the amount to be paid to the parochial rates. Mr. Dobbs has already received promises of pecuniary assistance from all quarters, to enable him to contest the point raised, and the recent decision will further stimulate his supporters to continue their subscriptions, in order that the question may be finally decided by the highest tribunal.

A meeting of the supporters of the movement for the repeal of the Contagious Diseases Acts was recently held at the Westminster Palace Hotel, in response to an invitation from the National Association for the promotion of this object. The chair was taken by Mr. J. Stansfeld, M.P., who opened the proceedings by reviewing the difficulties which had prevented him from carrying out his positive assertion that the question should be brought before the House of Commons during the past session. Some work, he said, had been done by the Select Committee of the House which had recently reported, and there the task of the repealers was very arduous. The result was exceedingly unsatisfactory to him, and, of course, to the meeting, for the report of the Committee pointed clearly to the extension of the Acts to the country at large. He denounced the action of the Committee in language more forcible than polite, and concluded by remarking that the Government could not stand on the report, which was based on divided medical opinion, and was contrary to the best moral and religious instincts of the nation. Several resolutions were moved, and, of course, unanimously carried, denouncing everything that did not agree with the opinions which the meeting had assembled to uphold.

A short time since the Leek Guardians passed a resolution, prohibiting the use of alcoholic stimulants in Leek Workhouse. They have now, however, seen fit to rescind their order, in consequence of a letter received from their medical officer, pointing out three cases of sickness which have suffered considerably through the withdrawal of the allowance of brandy ordered by him. This officer added that, should one of these inmates die within the next few days, as was not at all improbable, he would have no alternative but to certify that death was accelerated by want of proper nourishment. The resolution was therefore rescinded in favour of one to the effect that stimulants be only allowed in urgent cases, when ordered by the medical officer. The question of allowing the ordinary pint of beer to each inmate of the Workhouse on Christmas-day was also discussed, and decided in the negative, although the Board afterwards consented to the proposition of a member to supply the beer at his own private expense—a result suggestive, to say the least, of the conclusion that with the Leek Guardians the question of denying or granting alcoholic stimulants to the inmates of the workhouse is one of pocket, and not of principle.

We last week published the leading particulars of the tenth annual report of the Council of the Hospital Sunday Fund; the necessary meeting to confirm the same was recently held at the Mansion House, under the presidency of the Lord Mayor. In the course of the proceedings it was stated that the working expenses for the past year had been £1132, or not quite 3½ per cent. The Council desired to record their thanks to the clergy and ministers of all denominations for their valuable co-operation, and pointed out that the spreading interest in the movement was shown by the circumstance that whereas, in 1873, 1072 congregations contributed, in 1882 they had received collections

from no less than 1338 congregations. The Lord Mayor spoke in warm praise of the movement, and trusted that the sum realised during his term of office would exceed anything previously obtained. The Rev. Canon Spence, in moving the continuation of the laws and constitution of the Fund, expressed great satisfaction at the working of the new rule, by which 4 per cent. of the gross collection was devoted to the purchase of surgical appliances. In this way 1110 appliances had been issued to the afflicted poor during the year; and he informed the meeting that the monthly amount devoted to that object had been promised already up to the end of January next, and, unless some benevolent donors rendered additional help, no more appliances would be issued until February. It was proposed and seconded that June 10 be fixed for Hospital Sunday of 1883; and Dr. Adler, the Chief Rabbi, promised the cordial help of the Jewish congregations of the metropolis on the preceding Saturday, June 9.

Numerous cases of typhoid fever having recently occurred in Salford, the Medical Officer of Health for the district has addressed a letter to the local press, strongly recommending householders to "thoroughly boil the whole of their milk before using it." It would appear that in several instances the disease was traced to contamination of the milk-supply; but, however efficient as a personal safeguard boiling the milk may be, it is certain that many persons will forget it, or neglect it on the grounds of trouble, recklessness, or because it deprives the milk of its freshness. A far more satisfactory and safer course is undoubtedly the institution of a careful investigation into the sources from whence milk is imported into the city; boiling is at best only a temporary precaution, and it has this disadvantage, that it leaves the fountain-head of the mischief undiscovered, with the liability of inviting an attack of disease if the process be neglected or forgotten.

A town's meeting was recently held at Liverpool, under the presidency of the Mayor, to consider the proposed reconstruction of the Royal Infirmary in that city. The attendance was large and influential, including the High Sheriff, a number of members of Parliament, many magistrates, and other gentlemen. In opening the proceedings, the Mayor briefly reviewed the history of the Infirmary, which is one of the oldest charities in the city, dating as far back as 1749. It originally stood on the site of the present St. George's Hall, but in 1827 the site now occupied was selected in Brownlow-street. The time has come, however, when it is necessary to seriously take up the question of rebuilding, the accommodation being totally inadequate, and the sanitary condition of the present building eminently unsatisfactory. The Committee, including the whole of the medical staff, are desirous to see a new building erected, since they are of opinion that it would be very objectionable to endeavour to patch up the present structure. On the motion of Colonel A. H. Brown, M.P., seconded by Mr. E. Whitley, M.P., a resolution was adopted, affirming that the present building should be replaced by a new one. It was next decided, on the motion of the High Sheriff, seconded by Mr. W. Rathbone, M.P., to raise a fund of £100,000 to erect a new hospital worthy of the city.

A systematic examination is now carried on in the United States Navy as to the existence, and degree, of colour-blindness, and, according to the report of the department for the last year, it appears that during that period the operations of the service have been extended to a number of new ports. There were 2000 pilots and 273 seamen examined for colour-blindness. Sixty three of the former (about 3 per cent.) and four of the latter were found to be colour-blind.

As the result of the agitation by Dublin medical students, the Council of the Royal College of Surgeons in Ireland have, it is announced, altered their decision, refusing to recognise night lectures, and have determined to admit the status of night students, so far as attendance during the present term, ending in April next, is concerned.

The Royal Commission on Metropolitan Sewage Discharge have continued to hold meetings during the past week. There were present—Sir P. B. Maxwell (in the chair), Colonel Sir C. B. Ewart, C.B., R.E., Professor A. W. Williamson, F.R.S., Dr. de Chaumont, F.R.S., Dr. Stevenson, James Abernethy, Esq., F.R.S.E., and Dr. W. Pole, F.R.S. (secretary). Further evidence was given on the part of the complainants.

THE QUEEN AND THE INVALIDS FROM EGYPT.

MUCH satisfaction will be felt throughout the Service at the announcement that Her Majesty has been graciously pleased to forward to Mrs. Deeble, the Superintendent of Nurses at the Royal Victoria Hospital, Netley, five large Berlin-wool quilts for the use of the military invalids now under treatment in the establishment. One of the quilts had been entirely worked by the Queen herself, and a second by the Princess Beatrice. The former bears in one corner Her Majesty's cipher of a crown, V.R.I., and the date, 1882; the latter bears the initial letter of "Beatrice." The other quilts had been worked by ladies of the Court, but the Queen had added, with her own hand, a border to each. The quilts are made of the softest wool, are of rich, though plain, patterns and colours, and are perfect in all respects as warm bed-coverings. This personal gift is an outcome of Royal appreciation of the work done by our soldiers in the recent Egyptian campaign, and shows how, under the stately mantle of the Queen, Her Majesty has never lost the homely attribute of womanly sympathy. The Royal inspection of the invalids of the naval and marine forces who are under treatment in Haslar Hospital is expected to take place on the 23rd inst. In order to facilitate the object of Her Majesty's visit, the whole of the invalids now remaining in hospital, who have been sent home from Egypt, have been centred in one ward, and it will be through this apartment that the Queen will pass on her arrival.

ON SATURNINE ENCEPHALOPATHY.

IN the *Progrès Médical*, No. 49, a case supposed to be of the above nature is reported by M. le Dr. Vicente. The patient, a man aged thirty-five, was a painter by trade, and had had an attack of lead-colic, as well as other manifestations of lead-poisoning, though an account of the exact nature of these is not vouchsafed. He had a blue line on his gums, and there was a history of his having had attacks of loss of consciousness, which, the reporter says, may have been due to epilepsy, hystero-epilepsy, or hysteria, but more probably, in his opinion, resulted from the effect on the patient's brain of the lead-poisoning. Leaving his history, from which we gather that he has undoubtedly suffered from lead-poisoning, we learn that on "August 5, in the night, he was seized with an attack of saturnine encephalopathy." As some of our readers may possibly not have any more definite ideas about the nature of such an attack than we had ourselves, we shall briefly describe it, and narrate in a few words the account of the subsequent illness. The attack, then, commenced with violent headache, cries, delirium, and trembling of the arms and legs; then the patient lost consciousness; after which there was rigidity, followed by convulsions. These symptoms persisted without much variation during the next few days. Sight was nearly lost. On the fourth day there was hemianæsthesia of the right side of the body, with rigid

extension of the right arm and leg, and loss of voluntary power in them. The patient complained of headache and mental confusion. Some hours later, aphasia and complete deafness supervened. The hemiplegia and hemianæsthesia seem to have lasted one day; the aphasia and deafness two days: they disappeared as quickly as they came. A fortnight after the commencement of the attack the patient was at work again. Of course we are all aware that epilepsy may result from long-continued lead-poisoning, but it seems to us that the above attack was far more closely allied to hysteria than to epilepsy, and that there is really no evidence to point to any association with lead-poisoning.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At the meeting of the Council of the Royal College of Surgeons, held on the 14th inst., the retiring members of the Board of Examiners on Anatomy and Physiology, viz., Messrs. Power, Pick, Rivington, Baker, Lowne, Bellamy, McCarthy, Langton, and Gerald Yeo, were re-elected for twelve months. The Council had before them the invitation from the Royal College of Physicians to a conference as to the best possible combination of the two Colleges in order to establish one complete pass examination in medicine, surgery, and midwifery. It was resolved that the invitation be accepted, and the President (Mr. Spencer Wells), Messrs. John Marshall and Cooper Forster (the Vice-Presidents), with Sir James Paget and Messrs. Erichsen, Savory, and Holmes, were appointed delegates of the College, to meet a subcommittee of the Royal College of Physicians, consisting of the President (Sir William Jenner), Sir Risdon Bennett, Sir William Gull, and Drs. Pitman, Acland, Sieveking, and Ord. Mr. Luther Holden resigned his seat in the Court of Examiners, and the vacancy thus created will be filled up at the Council meeting in January. Mr. Holden retires from the Board of Examiners in Dental Surgery also.

TYPHOID FEVER IN PARIS.

The *Gazette Médicale* states that the number of cases admitted into the hospitals still diminishes very slowly, for while there were 1037 patients under treatment on December 7, there still remained 924 on the 14th, being a difference of only 113. During the week 167 cases were admitted, but only 13 deaths took place, the daily average of admissions having been 23·86 (1·47 less than during the preceding week), and of deaths 1·86, or less by one-half.

ERGOT IN DIABETES INSIPIDUS.

Dr. Alfred Carter, in the *Birmingham Medical Review* for December (No. 52), gives a brief account of a trial of ergot of rye in diabetes insipidus. The patient was a little girl aged six, who had suffered from her complaint for about twelve months, probably, before she came under observation. The treatment lasted over a period of three months, including a fortnight in the early part during which the drug was suspended. The liquid extract was the preparation used, at first in doses of fifteen minims taken three times daily, afterwards gradually raised until no less than nine drachms a day were being administered. He arrives at the opinion that ergot had no notable effect in diminishing the flow of urine for the following reasons —1. The flow increased for the first three weeks, though ergot was taken. 2. Ergot was resumed after its withdrawal for a fortnight; yet the average flow during the four following days was sixteen ounces in excess of the daily average during the period of suspension. 3. Though the daily flow during the last two months was materially less on the whole than before, yet towards the end of this period it increased some sixteen ounces beyond the average of the earlier part, though at the same time the dose of ergot was systematically increased. 4. On the final suspension of the ergot the daily average diminished at first, and did not afterwards exceed the average flow during the time that no less than nine drachms of the extract were being taken daily. 5. Such improvement as did occur appeared to be more closely related to the improvement of general nutrition than to anything else. We think it is evident, then, that ergot may be added to the somewhat long list of drugs which exert no beneficial influence on this formidable malady.

THE SANITARY CONDITION OF MAYFAIR.

An article, with the sensational heading of "Death in the Drains," and referring especially to the defective sanitary condition of houses in Mayfair, lately appeared in a weekly lay contemporary, and has drawn forth a vindication of that sub-district from Dr. Corfield, the Medical Officer of Health for St. George's, Hanover-square. Dr. Corfield shows that—(1) The death-rate of Mayfair (subtracting the deaths in the workhouse and adding a proper proportion of the deaths in all the public institutions of the metropolis) has, during the last seven years, varied from 13·59 to 11·79, and averaged 12·93 per thousand per annum; while the average death-rate for London is 22: so that the death-rate of Mayfair is to that of London as 13 to 22, or very nearly as 4 to 7. (2) The mean duration of life in Mayfair last year was 66·20 years, and in the whole parish of St. George's, Hanover-square (including the sub districts of Hanover-square, Mayfair, and Belgravia), it was 50·26 years, as against a duration of 35·87 years for London generally. And (3) not a single death from typhoid fever was registered in Mayfair (population 13,491) last year, and only one—and that one an imported case—this year. He adds that any houses where a nuisance is believed to exist are at once inspected, and the proper alterations ordered; and that if a definite complaint of the sanitary condition of any house or houses in Mayfair be made, it will be at once attended to.

DR. E. C. SÉGUIN.

The *Boston Medical Journal* of November 9 supplies some particulars of the terrible catastrophe which occurred in the family of Dr. E. C. Séguin, the well-known specialist in diseases of the nervous system, and editor of the *Archives of Medicine*. As was telegraphed at the time of its occurrence, his wife, during his absence from home, took their three children, aged respectively six, five, and four years, up to an unoccupied room at the top of the house, and, having blindfolded them and tied their hands behind their backs, deliberately shot them, and then took her own life in the same way. Strangely enough, the pistol-shots were not noticed by anyone in the house or neighbourhood, and when the bodies were discovered, life had probably been extinct for an hour or more. Mrs. Séguin was a sister of her husband's junior partner, and was thirty-two years of age. She had for some time been subject to temporary depression of spirits, for which there was no assignable cause; but, as far as could be learned, there never was any reason to suspect the presence of actual insanity. The coroner's jury, which was composed entirely of medical men (as is the excellent custom at New York in all cases likely to call for medical investigation), returned a verdict that she performed the dreadful deed during a fit of mental aberration: and there can be no doubt that she was suffering from acute melancholia at the time. She had been depressed for several days, and it had been the intention of Dr. Seguin to take her next day for a little trip for change of scene. Dr. Séguin was the assistant of Prof. Brown-Séquard while he held a chair in New York, and is

a son of the celebrated Dr. Edouard Séguin, who, after his well-known labours in the education of idiots at the Bicêtre, Paris, emigrated to America, and settled at New York. Here he pursued a life of useful activity, one of the subjects to which he paid unwearied attention having been the endeavour to establish an international system of weights and measures founded on the metric system. Dr. E. C. Séguin has left his home for a prolonged visit to Europe, where the warmest sympathies will await him.

PULSATION OF THE SPLEEN IN AORTIC INCOMPETENCE.

It would appear that this sign of aortic incompetence has not been previously described. Attention has now been drawn to it by Dr. Gerhardt, in the *Zeits. f. Klin. Med.*, IV., S. 449, without any attempt being made to magnify the importance of the phenomenon. We are familiar with pulsation in the smallest vessels of many of the visible parts of the body in aortic incompetence, including the bed of the nails; and Quincke has shown how the two factors necessary for its production are, relaxation of the vascular walls, and sudden great variation in the blood-pressure, such as occurs in aortic regurgitation. In Gerhardt's three cases the spleen was large and the patients in high fever. The splenic tumour swelled during cardiac systole, expanding gradually, and diminished in size again during diastole. A dull double sound was audible over the tumour, apparently distinct from the cardiac murmurs which could be made out at the upper part of the tumour. To the finger the pulsation had not the characters of an aneurism, but was of the nature of a soft swelling, very much as in pulsating jugulars. The sign appears to be not entirely without some prognostic value, inasmuch as it indicates a sound condition of the left ventricular walls, and compensation, as far as possible, of the valvular inadequacy.

THE SANITARY CONDITION OF ST. PANCRAS IN 1881.

The twenty-sixth annual report of Dr. Shirley F. Murphy, the Medical Officer of Health for the St. Pancras district of the metropolis, on the sanitary condition of that locality during the year 1881, contains some interesting particulars as to the movement of the population in his district, elicited by the recent census returns. During the past ten years the population of St. Pancras has increased at about half the rate of the preceding ten years; the Kentish Town, Gray's-inn-road, and Regent's-park districts show an increase, the other districts a decrease. Somers Town has lost as many as 4164 of its inhabitants, chiefly owing to the demolition of houses removed by the extension of the Midland Railway Company. The birth-rate of the district for the year is slightly lower than that for the whole of London, and the death-rate practically the same; the mortality from the zymotic class of diseases is, however, somewhat in excess of the metropolitan returns. Dr. Murphy congratulates the authorities of St. Pancras on their refusal to avail themselves of the hospitals of the Metropolitan Asylums Board in dealing with their infectious patients. He describes fully the independent action taken by his Board in establishing tent hospitals at Finchley for such patients, on a piece of ground lent for the purpose by the Burial Board; and he states that he has every reason to be satisfied with the results obtained by treating cases of small-pox under canvas. As many as 134 patients were admitted to these temporary hospitals, with only nine deaths, though many of the cases were very severe; and it is, he says, worthy of especial notice that not a single case of erysipelas occurred, while pulmonary complications were infrequent. The hospital was of material use to the parish, and had the advantage of being ready at any moment it was required. The uncertified deaths in the district during 1881 numbered eighteen, and were in excess of the previous year, when they were only eleven. In 1880 the Vestry joined in a memorial to the Home Secretary, urging the necessity for an inquiry by a skilled officer in all cases in which the cause of death had not been certified, and concerning which no inquest was held. That such an inquiry is much needed, with a view to preventing crime, is, Dr. Murphy adds, obvious enough.

THE RECENT EPIDEMIC OF MEASLES IN ICELAND.

Mr. C. E. Paterson contributes to the December number of the *Edinburgh Medical Journal* (No. 330) a short note on the late epidemic of measles in Iceland. It appears that measles has been almost unknown since the epidemic in 1846, and it was therefore only natural that its introduction should be followed by a widespread and rapid outbreak. In Reykjavik the epidemic lasted about two months, during which time 1100 persons became the subjects of the disease, and 150 died. This does not strike us as a very high rate of mortality, all things being considered. It would appear that only about 40 per cent. of the population in the town itself suffered, whereas, "Dr. Gudmundsson, who is physician for a large district on the south coast, stated that in his part of the country, out of a population of 6000 or 7000, he only knew of two or three individuals who did not take measles." It is difficult to understand why the disease should prove more infectious in the country than in the town. "The spread of the epidemic was, no doubt, accelerated by a number of favouring circumstances," writes Mr. Paterson; "the spring and summer were cold and wet; the disease reached the island at the time when the country people were beginning to make their annual journeys to the trading stations, and when, therefore, infection was most readily conveyed from one place to another; and the fishing stations on the coast were crowded with fishermen, among whom, sleeping while on shore in every spot where shelter was to be had, the infection would spread with the utmost rapidity." We learn that the best recoveries were among children from four to thirteen years old. Among older patients, those under twenty made the best recovery, those above twenty suffered to a greater degree in more or less direct proportion to age, and the few persons over thirty-six years who had escaped the epidemic of 1846 and were now taken ill suffered severely as a rule. It would have been interesting to know—but on these points there is no definite statement—whether all who had escaped in the previous epidemic took the disease in this one, and also whether any who had suffered before suffered again in this epidemic. One more point of interest we notice, and that is in regard to the incubation period. The man who introduced the disease landed on May 2, and the eruption appeared on the following evening. Several members of his household became sick on May 9 or 10, and had the rash out by the 12th. Therefore the incubation period in these cases could not have exceeded eight days, and was probably less: this is unusually short, the average period being from ten to twelve days.

THE FIRST RESPIRATORY MOVEMENT OF THE NEWLY BORN.

Dr. W. Preyer, Professor of Physiology at the University of Jena, contributes to a recent number of the *Zeitschrift f. Geburtshülfe und Gynäkologie* a study of the above subject. He has investigated, by means of experiments upon animals, the mode by which the first respiratory movements are brought about, and comes to the following conclusions:—The necessary condition for the occurrence of the first respiratory movement is stimulation of the peri-

pheral nerves. In utero, with the placental interchange of gases normally going on, such stimuli as the cutaneous nerves of the fœtus usually receive are not sufficient to excite the irritability of the respiratory centre. But if the amount of oxygen in the fœtal blood is diminished, the irritability of this centre is increased, and then any peripheral stimulus will excite reflex premature efforts at inspiration, which often take place without any harm to the fœtus resulting. Without any increase in the irritability of the respiratory centre, or diminution of the amount of oxygen in the fœtal blood, extraordinary peripheral stimuli may excite inspiratory movements in the fœtus. Such movements taking place during delivery often, after separation of the fœtus, pass, without detriment to it, into normal respiration.

THE PARIS WEEKLY RETURN.

The number of deaths for the forty-ninth week of 1882, terminating December 7, was 1135 (593 males and 542 females), and among these there were from typhoid fever 62, smallpox 9, measles 14, scarlatina 4, pertussis 6, diphtheria and croup 34, erysipelas 3, and puerperal infections 5. There were also 44 from acute and tubercular meningitis, 136 from phthisis, 48 from acute bronchitis, 85 from pneumonia, 69 from infantile athrepsia (26 of the infants having been wholly or partially suckled), and 31 violent deaths (22 males and 9 females). The number of deaths registered is larger than the mean of the last four weeks. The deaths from typhoid fever have diminished from 73 to 62, but there were 185 cases admitted into the hospitals instead of 171. The mortality from the other epidemic diseases has remained nearly stationary. The increased general mortality has been chiefly due to acute affections of the respiratory organs and nervous system, while that from chronic affections of the lungs has been less than usual. The births for the week amounted to 1201, viz., 632 males (469 legitimate and 163 illegitimate) and 569 females (465 legitimate and 164 illegitimate): 97 infants were born dead or died within twenty-four hours, viz., 49 males (28 legitimate and 21 illegitimate) and 48 females (31 legitimate and 17 illegitimate).

HYPODERMIC TREATMENT OF SYPHILIS.

We learn from an abstract in the *Deutsche Med. Zeit.*, No. 42, that Dr. Martineau, of Lorraine, has used a hypodermic injection of mercury in the treatment of syphilis in 600 cases, and claims the following advantages for the method:—The neutral solution does not cause much pain, inflammation is not set up at the seat of puncture, mercurial stomatitis very seldom occurs, gastric troubles are quite avoided, and the injection acts more rapidly and energetically than medicine given by the mouth or through inunction by the skin. The author proved this by treating groups of syphilitic patients by the three different systems. The hypodermic solution, first compounded by Delpech, consists of ten parts of perchloride of mercury, fifteen of dried peptons, and fifteen of pure sal-ammoniac. One gramme of this powder may be dissolved in glycerine (one in twenty-five), which solution is then of the strength of one in 100.

THE WANT OF SEWER VENTILATION AT TAUNTON.

In his capacity of Medical Officer of Health to both the Urban and Rural Sanitary Districts of Taunton, Dr. Henry J. Alford bears testimony to the marked improvement which is slowly but surely taking place in the sanitary condition of the locality—a result, however, which he feels compelled to confess has only been brought about by constant admonition and supervision. But in Taunton, as is the case in many other towns, it would appear that the Authority itself requires a great deal of urging before it will second the efforts of its officials, and, in the annual reports for 1881, Dr. Alford has to express his regret that all his endeavours have failed, as yet, to bring about proper ventilation of the thirteen miles of sewers belonging to the town. Every year, as he shows, disease is caused by the sewers ventilating themselves into dwelling-houses through worn-out soil-pipes or imperfect traps. Once more, therefore, Dr. Alford warns the Authority that "so long as the sewers remain unventilated, so long will there be a great danger to the public health, and so long will the death-rate of the town be in excess of what it ought to be. The closing of the polluted wells and the substitution of pure water have done much to diminish preventable mortality; but sewer-gas is as dangerous as sewer-polluted water, and until this evil is remedied much sickness and ill-health and many deaths which might have been averted will inevitably occur." The rate of mortality for the Urban District in 1881 was 20·9 per 1000 of population, and for the Rural District during the same period 15·3. The value of the sanitary hospital for the isolation of infectious cases was clearly proved in 1881, when, during an epidemic of scarlet fever, only five deaths had to be recorded; whereas, during a similar epidemic in 1876, before this hospital was established, the deaths numbered no less than thirty-five, there being then no means at the disposal of the health officer for separating the sick from the healthy.

REMOVAL OF GOÎTRE.

In the *Deutsche Med. Zeitung*, No. 42, an abstract of a case of extirpation of a goître, performed by von Riedel, is given, which is unusual in the fact that symptoms supposed to be due to some affection of the vagus occurred soon after the operation. Aphonia, with rapid pulse and dyspnœa, set in within two hours after the operation. Tracheotomy failed to relieve the dyspnœa. Four days later, pneumonia was detected, and the patient succumbed. At the autopsy the recurrent nerves were found to be embedded in blood-clot; there was also commencing suppurative inflammation of the mediastinum and lobular pneumonia. Von Riedel puts the vagus symptoms down to the use of a 2 per cent. solution of carbolic acid with which the wound was washed out. He has seen one other similar case. The facts of the case are interesting, but we think the explanation not free from objections.

At a Congregation of the University of Oxford, held on December 18, the degree of Doctor of Medicine was conferred on Bonville Bradley Fox and Edward Oswald Hopwood, of Christ Church; and Percy Kidd, of Balliol.

At a Congregation of the University of Cambridge, held on December 18, the degree of Bachelor of Medicine was conferred on Adolphus Vaughan Bernays. The examiners for the degree of Bachelor of Surgery—Mr. Luther Holden, F.R.C.S., and Mr. Thomas Bryant, F.R.C.S.—have announced that the following candidates have been examined and approved:—Morris, B.A., Gonville and Caius; Pitt, M.A., Clare; Shield, Downing.

The Military Hospital returns, Cairo, for the five days from the 12th to the 17th inst., inclusive, show that there had been 225 fresh admissions and three deaths.

From accounts recently published, the business of the metropolitan water companies appears to be increasing at the rate of £75,000 per annum of returns, and £40,000 per annum net profits.

FROM ABROAD.

Professor Verneuil on Transfusion.

At the Congress held at Rochelle, Prof. Verneuil took occasion to express his opinion as to the inutility of transfusion, and the difficulty attending its performance; while all the advantages derivable from it might, he said, be obtained by the hypodermic injection of ether. This statement, copied into many journals, and our own amongst the number (*Medical Times and Gazette*, September 16, page 367), called forth from Dr. Roussel, of Geneva, the great advocate of direct transfusion, now in Paris, a letter (*Gazette des Hopitaux*, December 9), addressed to Prof. Verneuil, in which he informed him that during the month which succeeded the publication of the above opinion he had been called to four cases in which the operation proved unavailing, owing to the medical attendants having lost invaluable time with trials of the ether injections. He states his conviction that Prof. Verneuil's words had not been accurately reported, for at Rochelle he admitted that transfusion had sometimes been useful; and he now writes to him in the persuasion that he will be glad to have his statement set before the medical public in an authentic form. The reply of the Professor is a somewhat lame one. After declining the responsibility of the four deaths which Dr. Roussel seeks to charge him with, he observes that he gave his opinion publicly as to transfusion on the occasion referred to, and whether the journals reported his words faithfully or not, is no affair of his. He has very frequently spoken at learned societies, and on many occasions the medical press has rendered his ideas very imperfectly. He has never called for a rectification, believing it sufficient to refer to the official text, which also he intends to do on the present occasion. He cannot believe that his authority is so enormous as to cause the disappearance from practice of an operation if really very useful and of easy execution. If transfusion possesses these advantages, it will triumph over everything, and his opposition will be of no avail. Dr. Roussel expresses "great scientific satisfaction" at this reply, not perceiving, apparently, that it concedes nothing; but he ventures to point out that any rectification which the published reports may require will be delayed some ten or twelve months, when the Transactions of the Congress will appear. He evidently attaches an exaggerated importance to the influence of Prof. Verneuil's views in the matter; but we decidedly think that it should be the business of public speakers to see that their opinions are correctly set before the world, and especially when they relate to matters of the highest practical importance.

M. Pasteur on Rabies.

At a recent meeting of the Académie de Médecine (*Union Méd.*, December 14), Prof. Bouley read a communication from M. Pasteur, in which, after describing his success in treating the epidemic disease of pigs termed *rouget* by inoculation with the *microbe* on which it depends, he goes on to lay down the following propositions regarding rabies:—1. All varieties of the disease proceed from the same virus. 2. Nothing can be more varied than the symptoms of rabies, each case, so to say, having those proper to it; and there is every reason to believe that their characters depend upon the nature of the points of the nervous system, the encephalon and spinal cord, wherein the virus is localised and cultivated. 3. In rabid saliva, the virus being associated with various *microbes*, inoculation with it may give rise to three kinds of death—through the *microbes* of the saliva, the excessive secretion of pus, and rabies. 4. The medulla oblongata of a person dying of hydrophobia, as well as that of any animal dying of rabies, is always virulent. 5. The rabid virus is not only met with in the medulla oblongata, but also in all parts of the encephalon. It is also found localised in the spinal cord, and frequently in all parts of the cord; as long as the structure of the encephalon and spinal cord is not invaded by putrefaction, the virulence persists there. 6. In order to induce rabies with certainty and rapidity, recourse must be had to the inoculation, by aid of the trephine, of the surface of the brain, within the cavity of the arachnoid. The suppression of a prolonged duration of the period of incubation, and the certain appearance of the disease, are also secured by the introduction of the virus into the circulation. By the employment of these methods, so favourable to the experimental study of the disease, rabies may be made to appear at the end of six, eight, or ten days. 7. M. Pasteur and his assistants have met with cases of the spontaneous cure of rabies, but only when the earlier rabid symptoms have appeared, but never after the acute symptoms have ensued. They have also met with cases of disappearance of the early symptoms, with a recurrence after a long time (two months). The acute symptoms have been followed by death, as in the usual course of the disease. 8. In one of their experiments on three dogs inoculated in 1881, two of the dogs took the disease rapidly and died, but the third, after having manifested the early symptoms, recovered. Inoculated again, on two occasions in 1882, by means of the trephine, it did not become mad, so that the rabies, though benign in its symptoms, did not undergo relapse. Here is the first step towards the discovery of a preventive of rabies. 9. M. Pasteur possesses actually four dogs which cannot take rabies, whatever the mode of inoculation practised and however intense the rabid matter. Other dogs, inoculated at the same time, all took the disease and died. As man never contracts hydrophobia but as the consequence of a bite from a mad animal, the discovery of a means of opposing rabies in the dog would suffice to preserve mankind from this terrible scourge. The attainment of this end is yet distant, but, in the presence of the preceding facts, is it not allowable to hope that the efforts of science will one day compass it?

The Paris Dust.

Observations have been carried on by M. Miquel, at the Municipal Observatory at Montsouris, since 1875 (*Gaz. Hebd.*, November 25), for the purpose of ascertaining what matters are habitually held in suspension in the Paris atmosphere. These seem to be of all kinds, comprising cotton, hemp, wool, silk, hairs, down, pollen, starch granules, epidermic pellicles, particles of carbon, silex and various salts, crystals, globules of iron, dead insects, ova of infusoria, etc.—and especially spores of cryptogams and bacteria. The most abundant *microbes* are derived from moulds, the white spores of *penicillium*, and the brown and green spores of *aspergillum*, etc. They are microscopically examined on lamellæ, smeared with glycerine, which are exposed to a current of air for forty-eight hours, the air passing over the plates at the rate of about twenty litres per hour. The number of spores of cryptogams in suspension varies with the season, varying from 3000 in March to 54,000 in June; while the winter quarter averaged 6300 per month, the summer quarter averaged 36,500. Humidity considerably increased the number of spores. There was little difference found as regards the number of spores at the Observatory and at the cemetery of Mont Parnasse; and an apparatus placed near the sewer of the Rue Rivoli did not exhibit more than are found in the atmosphere of the best houses. The distribution of the *microbes* was found to be different. Of these four principal classes were observed—the micrococci, the bacteria, the bacilli, and (in much less numbers) the vibriones. At Montsouris the number of bacteria per cubic metre varied from 161 per month in the autumn quarter to eighty-nine in the summer quarter, and thirty-six in the winter quarter, increasing enormously in September, and especially in October, to diminish again in November; but here, contrary to what happens with cryptogams, the number diminishes greatly in wet weather, to increase during the period of dryness, and if the dryness persists they die—so that their numbers increase or diminish greatly according to the meteorological changes. While cryptogams diminish in autumn, the bacteria augment; and the appearance of the latter in large quantities seems to coincide with the prevalence of high winds. At the Pitié Hospital the number of *microbes* diminishes during the summer, to increase in winter, because ventilation is less complete during the former; and this is the case in general in all habitations of populous quarters. According to M. Miquel's tables, a man living amidst the free air of

Montsouris would introduce daily by the air-passages 300,000 spores of cryptogams and 2500 bacteria. The same man living in the wards of the Hotel-Dieu would introduce 80,000 cryptogamic spores and 141,000 bacteria. What it is of importance to bring out is the coincidence which M. Miquel has been the first to establish, of the curve which represents epidemic diseases, and of the curve which expresses the number of bacteria. The mortality from infectious diseases always increases or diminishes when the number of bacteria increases or diminishes. Is this a mere coincidence, or is it a relation of cause and effect? M. Miquel is so convinced of the reality of the parallelism that he affirms that he can follow in his laboratory the variations of Parisian mortality caused by zymotic diseases, without as yet being able to indicate which of the *microbes* it is that does the mischief.

MEDICAL REPORTS TO THE LOCAL GOVERNMENT BOARD.

Dr. Parsons on an Outbreak of Typhoid Fever at Clapham.

Information having been given to the Local Government Board of an outbreak of typhoid fever at Clapham, attributed to the use of milk, Dr. Parsons was instructed to institute an inquiry. On placing himself in communication with the Wandsworth Board of Works, who are the sanitary authority for the district, Dr. Parsons found that prompt and energetic action had already been taken by that Board with a view to ascertain the causes of the outbreak. Thus, lists of the cases of fever occurring in their practice had been obtained from the medical men practising in Clapham; the houses affected had been visited and examined; and the surveyor had been sent to Devonshire to examine the farms from which the suspected milk-supply was in part derived, and had sent up samples of water and of milk for analysis. The inquiry commenced on July 24 last, at which time the number of ascertained cases was twenty in fifteen households; two other cases in one household were subsequently heard of. Previous to June last, Clapham had for some time been free from typhoid fever. The majority of the houses in which the cases occurred were of a superior class and in good situations, some being on the edge of Clapham Common, overlooking the open space. Their sanitary condition, though here and there found to be defective in minor particulars, was, on the whole, much the same as that of other houses in the neighbourhood which were not invaded; and the water-supply was in nearly every case obtained from the Southwark and Vauxhall Water Company. On the outbreak of fever attracting attention it was soon observed that all the households in which cases had occurred obtained their milk from the same source, and in almost every instance the persons who suffered from fever were known to have been in the habit of drinking raw milk more or less freely, in some cases the patient having been the chief milk-drinker in the house. The milk supplied by the Clapham dealer was of two kinds, obtained from different sources; that yielded by his own cows being sold as "nursery milk" at a slightly higher price than the ordinary milk, which was sent up to him from dairy farms at Musbury, near Axminster. Careful inquiry at once satisfied Dr. Parsons that this latter was responsible for the spread of the disease; and accordingly, on July 26 last he proceeded to Axminster to inspect the dairy farms in question. It will not be necessary to follow the report through the details of this portion of the inquiry: it will be sufficient to state that, on analysis, the water of a well on one of the farms was found to be polluted with sewage; the existence at a not very remote date of typhoid fever in the immediate neighbourhood of the farm was ascertained; and the evident possibility of the access of the specific poison to the well by percolation was established. Infection might, therefore, have gained access to the milk either in the rinsing of the churns or by accidental splashing from the pump in the process of cooling the milk before transmitting it to London. The result of the analysis of the Musbury milk and its high reputation forbid the idea of habitual and intentional admixture with water; and, moreover, the limited extent of the outbreak shows, Dr. Parsons remarks, that the contamination must have been of a partial and occasional, and no doubt accidental, nature, and probably only slight in degree, perhaps affecting a single can on two or three occasions only (the dates of the attacks presuppose more than a single occasion). Had there been any general and continued contamination of the whole supply the outbreak could hardly have failed to attain a wider prevalence. Finally, the cessation of the further spread of the fever within a few days after July 6—the date when the Musbury supply of milk was given up—confirms, Dr. Parsons observes, the view of the connexion of this outbreak with that supply.

Dr. Parsons on Diphtheria in the Folkestone Urban Sanitary District.

In consequence of the Registrar-General's returns showing that diphtheria had caused an unusual number of deaths in the Folkestone Urban Sanitary District during the fourth quarter of 1881 and the first quarter of 1882, the Local Government Board, in July last, instructed Dr. Franklin Parsons to make an inspection of the locality. Up to that date the number of deaths registered from the disease within the urban district had been sixty, but the non-fatal cases can only be guessed at, although during the course of the inspection about 152 cases were heard of as having occurred in seventy-five households. A somewhat curious circumstance in connexion with this epidemic was the frequency with which the first case in each household proved fatal. Of twenty-seven in which both fatal and non-fatal cases occurred, in nineteen the first case proved fatal, and in only eight the first case recovered. In explanation it is suggested that only after a severe or fatal case was the disease recognised as diphtheria, and that parents, alarmed at the death of one child, sought timely medical aid for subsequent cases, with the result of averting a fatal termination. The mode of introduction of the disease, supposing it to have been introduced, is unknown; no history of infection from a previous case could be ascertained. Diphtheria is said to have been present in other towns in Kent before it appeared at Folkestone, but the Registrar-General's returns do not show any noteworthy mortality: it was also very fatal in Paris in the autumn of 1881, and Folkestone is in constant daily communication with France; yet it did not appear that the first case that could be traced—a child, who died on October 3, 1881—had been in the way of imported infection. The question of the causation or mode of propagation of the disease, as usual with diphtheria, Dr. Parsons says, presented many difficulties. In many cases, undoubtedly, it was carried from household to household by unrestricted personal communication between their respective members, the infectious nature of the disease not having been sufficiently recognised. There was no evidence, the report remarks, that school attendance had any special bearing upon the outbreak; there was no community of milk-supply, nor was there ground in any instance for supposing this to have been implicated. Further, the water-supply of the houses attacked was procured in some instances from the town service, supplied by a company, and in others from local wells. In almost all the houses, however, in which cases of diphtheria occurred, dangerous communications with the drains were found, of a nature to allow the entry of sewer-air into the house. The sewers of Folkestone are described as being of excellent construction, but they have their outlet tide-locked during the greater part of the twenty-four hours. It is admitted that the number of ventilators is insufficient, and there are no means for flushing; hence there must be, the report adds, at times a considerable accumulation of noxious gas under pressure, tending to force its way out wherever it can find a weak point. And, as bearing upon the probable connexion of the prevalence of diphtheria in Folkestone with defects of this nature, it is to be remarked, Dr. Parsons observes, that all the streets in which the disease was specially prevalent were situated on a hill at the head of an unventilated sewer—that is to say, in situations where the pressure of the sewer-air would be the greatest.

REVIEWS.

Lectures on Surgery. By (the late) JAMES SPENCE, F.R.S.E. Third Edition. Two vols.; pp. 1226. Edinburgh: A. and C. Black. 1882.

THE former editions of this work were issued in 1871 and 1875 respectively. This rapid sale is a better testimony to its general excellence than any amount of praise. It is fortunate that the present edition, as we learn by a special notice in the second volume, had the advantage of the author's supervision and correction, even to "the last line." We can only regret that the distinguished surgeon did not live long enough to enjoy the fruits of the great labour he has evidently bestowed on his work; for the book throughout bears testimony to the personal skill and wide experience of its author in the subjects of which it treats.

Although it includes all branches of general surgery, the work is a clinical rather than a scientific exposition of the subject, and as such it has a distinct value over and above that of a mere text-book on the art and science of surgery. We have frequently regretted that the ripe clinical experience of many of our best surgeons has perished with them; the more so as the exigencies of private practice often deprive our great hospitals of the services of such men just at the time when their teachings would be most valuable to younger men. It is on this account largely that we think Mr. Spence's book will retain its freshness as an index of his "method of teaching and habits of thought" long after his views and practice have ceased to be followed. Thus we should hardly care to accept the chapter on inflammation —theoretically considered—as an authoritative statement of the subject in its most recent development; while, on the other hand, the rules for treatment, the result of large personal experience, inspire confidence. The *resumé* on suppurative fever (pyæmia), we think, would be improved by omitting clause 9—"Suppurative fever is non-contagious, and, as a rule, not inoculable." Among the local dangers of suppuration he mentions "the giving way of an artery into an abscess—a very rare occurrence." Mr. Spence refers to a case in which Mr. Liston once opened an abscess situated over the carotid artery; a gush of blood took place; and, although Mr. Liston tied "the carotid," the patient ultimately died. The lecture on gunshot wounds of bones and joints betrays the author's want of experience in the subject; it would have been better to omit it from a work which, as we have already said, is specially interesting as being founded on personal experience. Thus, in the illustrations, the bullets are all of the old-fashioned *round* shape; these are known to produce effects widely different from the *conical* bullets at present in use. On page 124, speaking of excision of joints for gunshot injuries, there appears to us a misprint of considerable importance —"out of eleven *primary* excisions of the shoulder-joint ten recovered and only one died"—(the italics are our own). This we think can hardly be correct. As far as our own experience goes, no such percentage of recoveries was ever attained for operations which, if primary, must almost have been done "on the field."

The lecture on tumours is a little mixed up; the author gives a clinical classification and a structural classification. Under this latter heading, in Class I. we get "all tumours which resemble in their histological structure embryonic connective tissue. They are called the sarcomata." In Class II. the author "includes all tumours whose histological structure has its type in one or other of the various forms of connective tissue." Under this heading we find myxoma, fibroma, lipoma, carcinoma, and lastly, gumma. Classes III., IV., V., VI., and VII. include chondromata, osteomata, myomata, neuromata, and angiomata; while in Class VIII. are included "all tumours which have as their structural type epithelial tissue . . . epithelioma, papilloma, adenoma, and cysts." Thus it will be seen that the classification differs widely from that of most modern text-books. According to the author's own statement, Class II. should include Classes III. to VII. as being varieties of connective-tissue growths; while Class VIII. should have taken in carcinoma, as being composed largely of epithelial tissue. Students will do well to bear in mind these differences from established custom in the matter of classification when at examination; in actual practice it will be of less importance, if our author's clinical remarks on diagnosis and treatment be carefully remembered.

Operative and Regional Surgery occupy the second volume, and here the student will find Mr. Spence at his best, speaking for the most part out of his own personal experience, which had extended over thirty-five years, "twenty-two of them spent as a lecturer on surgery and an hospital surgeon." We can add nothing that would show more strongly the value of this part of the work.

The volumes are profusely illustrated with woodcuts and lithos, plain and coloured; but some of them are not quite up to the standard of excellence that marks the work as a whole. The book is well printed, and the size of the volumes convenient for general use.

Clinical Surgery. Extracts from the Reports of Surgical Practice from 1860 to 1876. By Dr. TH. BILLROTH. Translated by C. T. DENT, F.R.C.S. With lithographs and woodcuts. The New Sydenham Society. 1881. Pp. 518.

THE clinical experience of Professor Billroth has been so varied and extensive that it cannot fail to prove both interesting and instructive to English surgeons. For this reason we welcome Mr. Dent's condensed translation, issued by the Sydenham Society. In the preface we learn that the original reports extended to 1800 pages. Much statistical matter has been left out, while the more important and generally interesting work—the record of cases—has been carefully grouped and translated. An immense amount of the most varied pathological and general surgery will be found in the work—probably a larger record than any other living surgeon could put together. Mr. Dent has arranged the work in regions, so that reference is much facilitated, and there is also a copious alphabetical index. There are special chapters on the antiseptic treatment of wounds, carbolic acid poisoning, hospital gangrene, and traumatic erysipelas. We abstain from all criticism and comment, referring the reader to the volume itself, which cannot fail to become a standard book of reference.

On the Relation of the Chest Movements to Prognosis in Lung Disease. By ARTHUR RANSOME, M.A., M.D. London: Macmillan and Co. 1882. Pp. 100.

THE volume before us represents the sum of the author's experience after some twelve years of careful study devoted to the subject, and it goes over much the same ground as, but in a more exhaustive manner than, the author's paper on this subject that was read before the Royal Medical and Chirurgical Society about two years ago. We notice with pleasure in the introductory remarks the following sentence:—"No one method of inquiry can possibly do away with the need of a thorough medical examination on all the circumstances of the case." Usually men are so apt, in recommending their own particular methods, to cry down the others, that it is distinctly in the author's favour that he has expressed himself so unmistakably on this matter.

The object of this book is to prove that the movements of the chest-wall afford a very good clue to the condition of the lung beneath, and sometimes reveal the existence of disease hitherto latent, and unsuspected after the ordinary physical examination. The movements of the chest-wall are in three directions—upwards, forwards, and outwards,—and Dr. Ransome has caused to be constructed a three-plane stethometer with three recording discs to register these movements. For a full account of the mechanism of this instrument, and its mode of application to the chest, we must refer the reader to the work itself, or to the work on Stethometry by the same author. As regards the interpretation of these movements we read: "The *upward* dimension means simply the extent to which the clavicle or the rib can be raised or lowered. Thus it declares chiefly the degree of muscular power that can be exerted upon those bones; or else, as in cases where these levers have been abnormally raised, it measures the limit to which this elevation has already extended. A diminution of the *forward* movement of a rib, on the other hand, may show either a loss of muscular power or the presence of adhesions preventing the natural expansion of the chest; or, again, it may point to a want of elasticity in the underlying lung. And lastly, it may arise from an increased sensi-

tiveness in the inflamed lung, which imposes automatically a certain amount of restraint on the muscular apparatus." The upper part of the sternum, the mid-sternum, the clavicle, the third and fifth ribs, are the regions recommended; the centre of the clavicle and the sternal end of the third rib being the favourite spots. The stethometer yields valuable indications in chronic bronchitis, emphysema, asthma, after attacks of pleurisy, and in almost all forms of chronic phthisis. We are warned, however, that in this latter disease the measurements must be taken at a time when the disease is not in an active state, and not when fever and other signs of active inflammation are present.

Several charts are given, showing in a tabular form the results of measurements of both sides of the chest in the various diseases above mentioned, upwards of one hundred cases of phthisis being thus recorded; in each instance the sex, age, seat of disease, and result are mentioned. We think that these tables prove to demonstration that diminished chest-movement means diminished expectation of life. At the end of the book is a translation of an article by Professor Drachmann, of Copenhagen, who has made trial of this method for some years, and whose results agree very closely with Dr. Ransome's. In conclusion, we consider that in the stethometer Dr. Ransome has introduced a method of diagnosis capable of being of great value when rightly interpreted, though we cannot help thinking that the instrument will prove less useful to the general practitioner than to the consultant.

Health Lectures for the People. Delivered in Manchester. Published by the authority of the Manchester and Salford Sanitary Association. London: John Heywood. 1883.

When the history of the nineteenth century comes to be written, we venture to think that one of its most striking characteristics will be the wide-spread and persevering endeavours to inform the public mind on matters pertaining to ordinary every-day life, for a parallel to which we should refer in vain to the literature of bygone generations. The causes of this change we need not inquire into; let it suffice us that it has commenced and is progressing. Such a book as that before us would probably gladden the heart of John Howard, could he but see it, more than anything else we could show him. The present volume is one of a series that is being brought out by the Manchester and Salford Sanitary Association, and contains some dozen lectures. Where all are good and practical, it is somewhat invidious to particularise; but the lectures on cleanliness, on infection, and on diseases produced by drink, are so admirably expressed, that we cannot but specially commend them. As regards the lecture on small-pox and vaccination, we have never seen the arguments for vaccination better put, or in a form more easy to be "understanded of the people"; and anyone who fails to see the benefits conferred by vaccination, after reading it, is not a person whose reasoning power is of a high order. The remaining lectures are upon food, clothing, sick-nursing among the poor, beverages, the house, food and bodily energy, consumption, scarlet fever, fevers, infant feeding, colds and their consequences, measles and whooping-cough, and typhus and typhoid fever. We heartily wish the book a large circulation.

Medical and Surgical Reports of the Boston City Hospital. Published by the Trustees. Third Series. Boston. 1882. Pp. 390.

In this volume the editors "have endeavoured to present such a selection of hospital cases as may be most interesting and useful for comparison and reference." The reports appear to be got up on the pattern of the Guy's Hospital volumes. The one before us is a very excellent record of work done within an unspecified time. We could have wished for statistical tables of all the cases admitted; an idea of the extent of the material out of which the reported cases have been selected could then have been gained. The importance of this remark will be apparent by just glancing over the contents. Thus we find: "Notes of Typhoid Fever from a Series of One Thousand and Thirty-six Cases," "A Synopsis of Fifty Medico-Legal Autopsies," "One Hundred and Seventy-two Operations for Removal of Tumours," "An Analysis of Two Hundred Cases of Primary Pleurisy." We should have liked to know out of what total number of patients such large statistics of special cases had been selected.

These papers—indeed, all the papers—are elaborately worked out. They include analyses and summaries, which betoken a great amount of work and thought that will prove very useful to subsequent workers; and they are freely illustrated.

The Trustees of the Hospital are to be congratulated on their publication: it would be well were their example more generally followed.

Elements of Dental Materia Medica and Therapeutics, with Pharmacopœia. Third Edition. By James Stocken L.D.S., assisted by Thomas Gaddes, L.D.S. London J. and A. Churchill. 1882.

The fact that this book has already reached a third edition is the best possible evidence of the high opinion entertained of it by members of the dental profession, and it is unnecessary for us to add any words to such a practical demonstration of its value. The present edition is considerably larger than its predecessor, and no pains have been spared to bring it up to date. The chief addition consists in an index of diseases, which had not hitherto appeared, and which will probably prove of use to students. We have no doubt that this edition will prove as popular as the previous ones.

GENERAL CORRESPONDENCE.

"EXCEPTIO PROBAT REGULAM."

[To the Editor of the Medical Times and Gazette.]

Sir,—Neither Sir James Paget nor yourself seems to be aware that "*Exceptio probat regulam*" is a *legal* maxim, and, as such, strictly true in its literal sense. It means that the presence of an exception in a statute proves the rule to be different from the exception. Its ordinary misapplication is, of course, a vulgar error.

I am, &c., F.R.C.S.

LADY STRANGFORD'S HOSPITAL AT CAIRO.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter with this heading appeared in the *Standard* of the 14th of the present month. It is a touching letter, and calls for sympathy and respect; but it contains one paragraph which I wish had been omitted, and which, since it has been printed, asks for explanation. Lady Strangford writes—"The public subscriptions have failed entirely since Egypt ceased to be a new subject, and I am absolutely without funds to keep up the hospital, the upper storey of which is full of English officers, all in different stages of typhoid fever." Now, this is a fact rather calculated to startle one. Officers are entitled to treatment in their own quarters, when quarters are available, and ought in all cases to be treated by army medical officers, for these doctors are entirely responsible, not only for the treatment, but also for all certificates and recommendations, and these certainly require that the patient should have been carefully examined by the medical man who has to supply the official documents. It is perfectly true that in "the East" it frequently happens that an officer might, with much advantage, be removed to a hospital. Bad servants are often inclined to neglect their sick masters, and natives misunderstand the directions given to them. But I should imagine that the sick officer should always be removed to a military hospital.

Now, Lady Strangford's hospital is *not* this, and in her letter she not only admits that it is not, but bases a claim for support on the alleged fact that it is infinitely superior to a military hospital; for she says—"Of course they (the English officers) have a much better chance in my hospital than in the military ones." I should like to ask, Why? I think the War Office Committee now sitting on the Army Medical Service should ask, Why? I can well understand that a hospital conducted by Lady Strangford may supply many comforts not to be found in military hospitals. There may be more sympathy, and attention to a thousand trifles, which

may soothe the discomfort of a well-born and educated patient; but if this is the meaning of "*Of course English officers have a much better chance in my hospital than in military ones*," I think it should be so stated. At present I hardly know what a private soldier can gather from the perusal of the letter in the *Standard*, excepting that the hospital treatment of the Army Medical Department is bad and inefficient—*so bad* that his own officers decline to share it with him.

I am, &c.,

AN OLD ARMY MEDICAL OFFICER.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 12.

JOHN MARSHALL, F.R.S., President, in the Chair.

This meeting (which had to be specially prolonged) was entirely taken up by an interesting and lengthy debate on intestinal obstruction and its surgical treatment, arising out of Mr. Treves's paper "On Resection of Portions of Intestine." A collection of pathological specimens bearing on the subject, and illustrating many of the diseases and accidents (bands of lymph, tumours, cicatricial narrowings, etc.) which lead to obstruction, from the museums of the London and University College Hospitals, was shown.

Mr. MEREDITH exhibited the newest instruments, in use at the Samaritan Hospital, in the practice of abdominal surgery.

Mr. LUND (Manchester) exhibited his instrument for insufflating the bowel, either in cases of intussusception or previous to lumbar colotomy.

ON RESECTION OF PORTIONS OF INTESTINE.

Mr. FREDERICK TREVES read this paper. He said that portions of gut had been excised for various diseased conditions from all parts of the tube from the pylorus to the rectum. Illustrative cases of the various operations were then given, among them one of the most remarkable being that recorded by Kœberle, who excised two metres of the small intestine for multiple stricture with perfect success. In properly selected cases, resection would appear to be indicated in some forms of intussusception when all other means had failed, and when on opening the abdomen, the invagination was found to be irreducible; in gangrene of gut after strangulated hernia, in gangrene after some forms of internal strangulation, in non-malignant strictures of the small and large intestine, and in malignant strictures that were yet local. Other things being equal, the mortality after resection would appear to depend more upon faults in the details of the operation than upon any other single cause. There were two procedures: in one an artificial anus was established after resection; in the other, the two ends of the divided gut were united by sutures, and the mass returned into the abdomen. The former method had been the more successful. There were many objections, however, to artificial anus, especially of the small intestine, and there appeared to be no reason why the latter method should not prove the less fatal if the technical defects of the procedure were remedied. The operation of uniting the bowel after resection presented difficulties, viz., it was not easy to maintain the two ends of the gut in accurate apposition while the sutures were being introduced; the sutures were apt to be irregular; the gut above the obstruction was usually much dilated, while that below was shrunken, and it had been found almost impossible to unite well those unequal parts. One of the most common causes of death, therefore, after the operation was due to the escape of intestinal contents at the suture line. There was no reason, however, why the escape should not be as surely prevented as it was in cases of pyloric resection. To meet some of the difficulties of the operation the author had ventured to introduce the following appliance:—The gut above the part to be resected was secured by a special clamp lined with india-rubber to avoid undue compression of the bowel; the gut below was secured in like manner, and the obstructed or gangrenous part excised. The corresponding ends of the two clamps were then united by transverse bars, so that they formed with the clamps a rigid square frame. By means of that frame the two divided ends could be very accurately approximated, and firmly retained in position while the sutures were being applied. As it was difficult to apply sutures to collapsed gut, a sausage-shaped india-rubber bag about three inches long was used, that could be distended to four or five times its natural size through a small tube inserted in the centre of its long axis. This bag was sufficiently distended to make it firm, and one end was introduced into the upper segment of the divided gut, and the other end into the lower segment. The tube through which the bag was dilated thus occupied the suture line. After being introduced the bag was dilated to a good size. By this means a firm plug was introduced into the gut so as to form a substantial basis over which to apply the sutures. Moreover, by increasing the degree of distension of the bag, all inequalities in calibre between the two segments of the bowel could be overcome. Before the last sutures were applied the bag was emptied of air and withdrawn, it being capable in its shrunken state of being drawn through a hole of the dimensions of a No. 12 catheter. If the sutures were properly applied, *i.e.*, if the mucous membrane were not included in the stitch, there should be no danger of wounding the bag. At least fifteen or twenty sutures should be used. By means of this appliance it was possible to excise portions of the colon through an incision in the middle line. In cases of stricture of the colon it was often impossible to diagnose the exact seat of the obstruction, and under such circumstances the abdomen had been several times opened in the middle line, and the obstruction having been found, a second operation had been performed in one or other loin. Resection of the gut from the loin presented many difficulties, and could scarcely be performed without establishing an artificial anus. The cases at present published of resection of parts of the colon were detailed. If colectomy were always performed through the middle line it would—in cases of doubtful diagnosis at least—render one operation only necessary. The greatest fatality had been found in those cases of resection of the colon where the abdomen was first opened in the middle line, and the gut subsequently removed from the loin through another incision. The author had lately resected some two inches of gut from the middle of the descending colon for epitheliomatous stricture through an incision in the middle line. The divided ends of the bowel were united by means of the appliance described, and the gut returned into the abdomen. The man had had symptoms of obstruction for some months, and was *in extremis* when the operation was performed. He died in twelve hours. At the post-mortem the gut at the suture line was found fully distended with fluid fæcal matter, yet not the least trace of that matter had escaped from the intestine. The case served to demonstrate that portions of the colon could be resected through the middle line, and that the gut might be so united as to prevent all escape of contents.

Mr. BRYANT began by congratulating Mr. Treves on his paper. The case he thought a good one. If he might venture to criticise it in a friendly way, he would express his regret that lumbar colotomy was not first tried: for, being one of chronic obstruction, it was probable its seat was somewhere near the sigmoid flexure. Thus the lumbar incision would have helped to localise the disease, as well as served as an exploratory operation; and if found unsuitable, it would not have prejudiced the major operation—abdominal incision. He had especially observed in his cases of colotomy that some five or six inches of the gut can readily be brought under the surgeon's control, provided the gut is not too much distended or too much diseased. He thought that had lumbar colotomy been done in this case, the patient would have probably been alive. As regards Mr. Treves's apparatus, it was unquestionably ingenious. He doubted, however, whether it would be found as available in the case of diseased intestines as in healthy ones: for the greatly increased calibre of the one part, and the probable contraction of the other, would make it extremely difficult, even impossible, to unite them so as to prevent extravasation of the fæces. The condition of the intestinal wall became altered at some distance from the seat of obstruction, and this again would interfere with accurate coaptation of parts. He also feared that cicatricial contraction of the sewn edges would eventually occur, and lead to later obstruction. Many of the cases of intussusception which recovered after sloughing of

the gut eventually got obstruction. The treatment of the excised mesentery, he thought, would present great difficulties, especially if long pieces of the gut were removed.

Mr. BARKER thought that the use of antiseptic precautions would prevent the contraction of the cicatrix. After aseptic inflammation the resulting lymph showed less tendency to contract.

Mr. HOWARD MARSH thought Mr. Treves had made a useful contribution to abdominal surgery. The patient whose case was related was clearly too far gone to have recovered after any operation. He hoped we should soon come to recognise the desirability of operative interference early in cases of internal abdominal obstruction, just as we now do in hernia. He related some cases in which, acting on the old lines, he had done lumbar colotomy, but in which the autopsies showed that abdominal incision would have been the better surgery, as giving the opportunity not only of relieving the obstruction, but also of removing the cause of the obstruction. He disagreed with Mr. Bryant as to the danger of cicatricial narrowing of the gut along the line of suture.

Mr. CRIPPS did not think Mr. Treves's case showed that it was possible so to sew together the intestine as to prevent extravasation, as the patient died too soon; the test would be when the stitches began to come out. He, however, fully accepted the view of the desirability of resecting portions of intestine, as by that means—say in cancer—the obstruction, together with its cause, were removed at one and the same time; and in cancer of the intestine he thought it very desirable to remove it, as it was of a non-malignant type, and seldom recurred if thoroughly extirpated. On the whole he preferred an artificial anus, as offering greater chances of success, with less risk to life.

Mr. MACNAMARA did not think the danger of subsequent cicatricial narrowing quite so imminent as did Mr. Bryant. In many cases of dysentery with ulceration of the intestine he had seldom seen any subsequent obstruction. Success in these cases seemed to depend on the perfection of the operative details.

Mr. MARSHALL thought the paper valuable. We were still, he said, undecided on many points connected with this subject, and it was only by comparing experience, as done this evening, that we could hope to improve our knowledge. He thought the instrument very ingenious, and a decided improvement on Martini's, but he agreed with Mr. Bryant as to the difficulty, even with its aid, of accurately coapting the extremities of the cut intestine when the calibres were not the same. An artificial anus was the safer plan, but we ought to try and advance on this. He rather inclined to lumbar incision in cases of chronic obstruction, while in acute cases he would incline to the median incision.

Mr. TREVES briefly replied, and the meeting then adjourned.

THE OPHTHALMOLOGICAL SOCIETY.

THURSDAY, DECEMBER 14.

WM. BOWMAN, Esq., F.R.S., President, in the Chair.

THE minutes of the previous meeting having been read and confirmed,

The PRESIDENT said: Gentlemen,—Before entering on our proper business a sorrowful duty falls to me—to make some allusion, however brief, to an event which has occurred since we last met. You will anticipate me to mean the death of Mr. Critchett. We knew then that he was seriously ill, but there seemed ground for hope that his valuable life might be still spared to us, and that we might see him again. But it has been otherwise ordered. In him we have to mourn a warm-hearted, a true-hearted colleague, one whose calm and mature judgment, resting on a long and large experience, is now being missed by many of us, when in charge of anxious and complicated cases. I feel that I must refrain from an expression of personal grief at the loss of an almost lifelong friend. A particular enumeration of his many claims on our regard will be more appropriately attempted on some future occasion, but I cannot help recalling at the present moment that it was he who so worthily occupied this chair at the close of last session, in my temporary absence; and I think I am justified in adding that our general voice would have called him to it for the next presidential term had he continued amongst us. The Council requests me to read the following resolutions, which they have this evening unanimously passed:—1. "That the Council of the Ophthalmological Society of the United Kingdom desire to record their sense of the great loss sustained by the Society, as well as by the profession at large, in the death of one of their Vice-Presidents, George Critchett, whose extended reputation, at home and abroad, rested on the solid foundation of important services rendered to that department of the medical art to which he was chiefly devoted, and whose kindness of heart and excellent judgment were universally recognised and esteemed." 2. "That a copy of the foregoing resolution be forwarded to the family of Mr. Critchett, with an expression of the cordial sympathy of the Council, on the part of the Society, under their bereavement."

HYDATID TUMOUR OF ORBIT.

Mr. P. H. MULES showed a hydatid cyst the size of a pigeon's egg. The patient was a boy aged six years; the growth was difficult to diagnose, and was treated by free incision and drainage-tubes. The cyst was discharged on the seventh day. Before this, however, a condition of choked disc supervened, which interfered with the perfect recovery of vision; but six months after the removal of the cyst he could read J. 1.

Mr. HUTCHINSON asked if the cyst had been examined since its removal. He had not been able to gather from the paper whether the diagnosis had been established.

Dr. STEPHEN MACKENZIE thought that the presence of a laminated membrane was quite sufficient evidence even when echinococci and hooklets had not been found.

The PRESIDENT asked why Mr. Mules had not removed the cyst at the second operation. He thought a portion of it might have been removed at any rate, unless it was very firmly adherent.

Mr. MILLES had lately seen a case at Moorfields of a similar kind, in which the cyst had been removed entire without any difficulty.

Mr. MULES, in reply, said he had examined a portion of the cyst-wall, but had found no echinococci. Besides the laminated arrangement of this structure, he relied very much upon the absence of albumen from the contained fluid as being in favour of the diagnosis. The cyst had attachments quite at the apex of the orbit, and, as the orbit was full of blood, he had not felt justified in running the risks that would be incurred in attempting its removal.

PANOPHTHALMITIS.

Mr. MULES related a case which had recently occurred in his practice. The patient had undergone, two years and three months earlier, an operation for glaucoma, which left a cystoid cicatrix. A panophthalmitis, which he attributed to septic absorption through the faulty cicatrix, destroyed the eye within twenty-four hours of the first symptom of purulent infection.

Mr. PRIESTLEY SMITH observed that Leber, at the Ophthalmological Congress during the present year, had remarked on the dangers of cystoid cicatrices in such cases; he had himself recently had under his care a patient who lost an eye in less than twenty-four hours from septic inoculation, probably by means of an old wound in the iris.

Mr. BRUDENELL CARTER referred to the case of an old lady upon whom he had operated for chronic glaucoma of both eyes, in whom some three years later suppuration took place in one eye, the pus making its way out at the cicatrix. There was no evidence of inoculation.

NECROSIS, AND SPONTANEOUS SEPARATION OF A LARGE IVORY EXOSTOSIS OF THE ORBIT.

Dr. H. A. LEDIARD (of Carlisle) showed the portrait of a patient with a large ivory exostosis of the left orbit, and also the exostosis itself. The tumour was stated to have been about the size of a pea at birth, and was situated between the upper eyelid and the eyebrow. It gradually enlarged, and, at the age of nine years, induced destruction and rupture of the globe of the eye. The tumour ceased to enlarge at about twenty-five years of age, and, about two years later, the skin, which had hitherto covered it, suddenly gave way. The patient was admitted into the Carnarvonshire and Anglesey Infirmary, under the care of Mr. Hughes,

in 1870. He was then thirty-three years old, a sailor, and in good health. The tumour seemed to arise from the cavity of the left orbit. It was of stony hardness, irregularly pyramidal in shape, nodulated on the surface, and measured 4·5 × 5 inches; the tumour was then movable, and, whilst under observation, gradually became looser; an offensive discharged issued from the base; finally, about a month later, the whole mass became suddenly detached, without any associated pain or hæmorrhage. The tumour was pedunculated, and weighed 9 ounces. The neck also was much enlarged, the anterior and lateral portions being of stony hardness, the left side being on this account much larger than the right; the girth of the neck was 17·5 inches, and of this a space of ten inches was of stony hardness. In October, 1882, the patient survived, was in good health, and master of a vessel. The vision of the right eye remained good. Dr. Lediard referred to the other similar cases which he had been able to find recorded. Mr. Hilton reported in *Guy's Hospital Reports* (1836) a very similar case, where the exostosis, which weighed 14·75 ounces, became spontaneously detached. In a case recorded by Mr. Hutchinson in his "Illustrations of Clinical Surgery," and under his care jointly with Mr. Borlase Child in 1859, the exostosis, which was of large size, and appeared to spring from the frontal sinus, also underwent necrosis. Sir James Paget, in his "Surgical Pathology," mentioned another case of large ivory exostosis in the orbit, which projected not only forwards, but also backwards, into the skull. Dr. Lediard showed a photograph of the skull in this case, which had been sent to him by Professor Humphry, of Cambridge. Boyer had referred to spontaneous necrosis of ivory exostosis, and had remarked on the fortunate nature of the process.

Mr. Hutchinson remarked that the lesson he had learned was that all these tumours had very narrow pedicles, and if attacked early might be got away without much danger, as necrosis did not take place till very late. In the case referred to by Dr. Lediard, of Mr. Borlase Child's, they sawed through the neck in an hour; they ought to have broken it off at the root. A year later the rest of the tumour shelled out without difficulty, having undergone necrosis, leaving the orbit immensely dilated.

The President recollected a case at Moorfields. The exostosis projected out of the orbit to about the size of a walnut; he prized it off, and found that it shelled out without difficulty.

Dr. Stephen Mackenzie asked as to the relative frequency of exostoses in this situation.

Dr. C. E. Fitzgerald said that there was a specimen in the museum of the Royal College of Surgeons in Dublin very closely resembling the Cambridge one. He had had a case under his own care, but, as the tumour sprang from the roof of the orbit, he had not liked to interfere with it.

A Case of Hard Chancre of Inner Canthus.

The Secretary read, for Mr. Simeon Snell (Sheffield) particulars of a case, occurring in a nurse-girl, aged twenty-one, who had under special charge a syphilitic baby of five months. The chancre was noticed for some few weeks as a pimple, before the girl came under observation on August 15, 1882. It then involved the caruncle and adjacent conjunctiva, as well as the integument of the commissure and the lids. A point of interest and diagnostic value was the presence of well-marked induration of the pre-auricular and submaxillary glands. Other symptoms were a papular coppery rash and alopecia, ulcerated throat, and, later on, mucous tubercles of the vulva. The chancre healed, with hardly appreciable deformity.

Mr. Brudenell Carter had twice seen a hard chancre on the eyelids in young people. The mode of infection could not be traced in either instance. They recovered under the usual treatment.

Dr. C. E. Fitzgerald had seen a case in Paris in a young girl, which, no doubt, was the result of the disgusting habit occasionally practised there.

Mr. McHardy called attention to the prevalent belief that the tip of the tongue was the best thing for removing a foreign body from the eye. He thought that the infection might be caught this way, or by the somewhat kindred method of moistening a piece of blotting paper for the same purpose.

Mr. James E. Adams had, as a card specimen, a doubtful case of hard chancre on the upper eyelid. He thought that the inoculation mostly arose from the sore mouths of syphilitic children through the act of kissing.

Mr. Vose Solomon had seen a case which was clearly traceable to kissing.

Cases of Central Amblyopia in Diabetes.

Four papers on this subject were read to the Society. The first was by Mr. Lang; the second paper, by Mr. J. B. Lawford, was an account of a case of stationary tobacco-amblyopia in a man subsequently affected by diabetes. The patient was forty-six years of age; had always been a heavy smoker. His sight had begun to fail about seven years ago, and symptoms supervened about nine months ago; but his sight had not deteriorated, though the diabetes had grown suddenly worse. Vision was very defective, and there was a well-marked central scotoma for red. The optic discs were a little pale, but the ophthalmoscope revealed no other morbid state.

Double Amblyopia, with well-marked Central Scotoma for Red and Green.

Mr. Stanford Morton communicated a case of the above, in a man aged thirty-four, accustomed to smoke very moderately, and who was suffering from diabetes. The patient was not under care long enough (barely two months) for the result as to sight to be known.

Central Amblyopia in Diabetes.

A paper on this subject was contributed by Dr. Edmunds and Mr. Nettleship. It contained notes of four cases of central amblyopia, without ophthalmic changes, in patients suffering from diabetes:—1. A man aged forty, who had suffered from diabetes for several months. He smoked half an ounce of tobacco a day. Failure of sight had been noticed for one month. Vision in each eye $\frac{20}{100}$, letters 14 J. (corrected). Under treatment for diabetes, health improved, but not vision. He would not, however, stop smoking. 2. A man, aged thirty-eight, had had diabetes three or four years. He smoked half an ounce of strong tobacco daily. Failure of sight had been noticed for five months. Vision in each eye $\frac{20}{200}$, and 14 J. He died in the country three months later. 3. A male, aged forty-eight, had been the subject of diabetes during twenty-one months. He had smoked, during the last thirty years, three-quarters of an ounce of tobacco a day. He had experienced failure of sight for five weeks. Vision was $\frac{20}{200}$, and 8 J. 4. A man, aged fifty-eight, a moderate smoker, complained that his sight had been failing for eighteen months. Vision in each eye $\frac{20}{200}$, and 16 J. His urine, on examination, was found to contain sugar. Nine cases were referred to by the authors (including published ones) of failure of sight with central scotoma, in the subjects of diabetes, without ophthalmoscopic changes. The authors, however, suggested that the coincidence would prove to be fairly common. Most of the patients were smokers—some of them great smokers; and it was not yet certain whether diabetes alone caused the disease, or only acted as a predisposing cause to tobacco-amblyopia. The analogy of double amblyopia to the symmetrical neuralgia in diabetes, described by Worms and Buzzard, was pointed out.

In connexion with this paper, Dr. Edmunds and Mr. Lawford showed microscopical sections of the optic nerve of a hard smoker, whose sight had been failing for about four months. No ophthalmoscopic changes had been detected. He had died from diabetes. Sections of the optic nerve showed changes limited to a group of fibres which extended through the length of the nerve; the change consisted in a thickening of the connective tissue with degeneration of the nerve-fibres.

Dr. Stephen Mackenzie thought that these papers showed the value of such a society as this. These cases had all come under the care of surgeons rather than of physicians; he had only seen two cases of the kind, and one was in a woman. It was evident, however, that tobacco was an important factor.

Mr. Priestley Smith, in reference to the pathology of this affection as a whole class apart from constitutional or toxic causes, drew attention to the hypothesis thrown out by Samelsohn (of Cologne), that the inflammation of the central bundles only of the optic nerve at or near the optic foramen (not further back), which causes central amblyopia, might be related to the distribution of the nutrient blood-vessels of the nerve; as these vessels pass from the peri-

phery to the centre of the nerve, the latter may be the most richly supplied with capillaries, and most prone to inflammation. Sudden changes of vascularity of the face, from exposure to cold, violent exertion, etc., might, in Samelsohn's view, lead, through the anastomoses of the orbital and facial vessels, to congestion and inflammation of the most highly nourished part of the optic nerve. The speaker quoted a case which he thought confirmed this view.

Sequel to a Case of Optic Neuritis.

Dr. Samuel West said that the patient came under Mr. Morton's care in January, 1881. Vision was then perfect, but both discs were greatly swollen. In the following month she consulted Dr. West for headache and for sudden temporary attacks of blindness. Vision began to fail in June, 1881, in the right eye; it then amounted to J. 2 and $\frac{2}{3}$, and the field of vision was much contracted. Headache was worse. At the end of July, 1881, vision in the right eye was completely gone, and was defective in the left. She was very actively treated with mercury and with iodide of potassium on several occasions, but without any good result. In September, 1881, she was completely blind of both eyes, and even perception of light had ceased. The swelling of the discs remained. Atrophy gradually ensued, so that in August, 1882, the discs were quite white and extremely atrophic. In November, 1882, there was no perception of light; the pupils did not react to light; the eyes diverged, but could fix fairly well. The condition was probably secondary to some tumour of the brain—possibly a tubercular tumour—which had become stationary or retrogressive; but the diagnosis was exceedingly difficult. This case was reported by Mr. Stanford Morton in the Society's *Transactions*, vol. i. It was of interest, owing to the persistence of perfect vision for about five months in the presence of extreme optic neuritis, to the attacks of temporary complete blindness, to the rapidity with which the failure of vision became absolute when once it commenced, and to the entire absence of any symptoms beyond the eye-changes.

Living and Card Specimens.

Mr. Gunn showed a girl with Peculiar Appearances in the Right Retina below the disc, probably congenital.

Dr. Stephen Mackenzie showed a drawing of Great Tortuosity of the Veins in a man who was the subject of emphysema pulmonum.

The President had often seen marked tortuosity of vessels on the surface of the sclerotic. He had sometimes thought it preceded glaucoma. Such cases had made good recovery after iridectomy.

M. Juler showed the patient with Chronic Diphtheritic Conjunctivitis, whom he had brought forward at the last meeting. The right eye had been cured by lapis divinus, but the left had got worse. He also showed a child suffering from extreme Proptosis of the Left Eye—a patient of Mr. Anderson Critchett's.

Mr. Adams, in addition to the card specimen referred to above, brought forward a case showing a peculiar Congenital Opacity on the Capsule of the Crystalline Lens.

NEW INVENTIONS AND IMPROVEMENTS.

NEW SAFETY HYPODERMIC INJECTOR.

By John Ward Cousins, M.D., Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

During the last few years treatment by hypodermic injection has been very generally adopted in many forms of disease, and the number of remedies introduced into the system by this method has also steadily increased. Up to the present time the hypodermic syringe has been the only instrument employed by medical men, and the great demand has resulted in the production of many new forms and many ingenious modifications. It is, however, a very general opinion that the syringe does not even now readily and conveniently fulfil all the purposes for which it is required in practice. It is easily deranged, very liable to accidental injury, and always requires very careful manipulation. In any form it must be considered a costly instrument, and certainly very troublesome to clean. When not in daily use it soon gets out of order, and the piston is a constant source of trouble. The washer shrinks or becomes worn and loose, so that the syringe does not work well, and often the operator discovers to his great vexation that the fluid instead of entering the patient, gradually makes its appearance at the other end of the barrel. I am sure there are few medical men constantly employing hypodermic remedies who have not been disappointed by the faulty action and sudden failure of this delicate little instrument. The vast majority of practitioners, moreover, employ the same syringe for every emergency; and in the case of those who are fortunate enough to possess two such instruments, it will be very frequently found that one of them, at least, is broken or otherwise out of order. The same hypodermic syringe is used for every patient as well as for every remedy, and, in fact, for every purpose for which it is required both in medical and surgical practice. Sometimes morphia has to be hypodermically injected for the relief of pain: then ergotine has to be administered in the same way during labour, and after that some other remedy must be introduced into another patient. At one time the syringe is charged with perchloride of iron for the treatment of nævus, and at another time it is used for injecting iodine into an indurated thyroid or other glandular enlargement. By the general use of a single instrument, much extra labour and additional responsibility are always incurred. The same syringe, when continually employed for a large number of potent medicines, demands at the hands of the busy practitioner of the healing art the most scrupulous care in washing and cleansing after every operation. Of course, this difficulty is readily overcome by obtaining a set of instruments, and by using a special syringe for every patient and for every remedy; but this alternative involves considerable outlay,

and certainly renders the administration of hypodermic remedies an expensive form of treatment, and quite beyond the reach of a large class of patients. The syringe always requires care in its application. The eye must generally assist the hand, and the quantity of fluid injected must be regulated by the movement of the piston over an index. The piston is often furnished with a movable stop, and this is no doubt a valuable safeguard. Still it must be remembered that every addition involves extra attention, and that the stop itself has to be properly adjusted before every operation. The hypodermic injection of an active medicine, and the due regulation of the dose, always involve considerable responsibility, and for this reason it is never my practice to place the administration of any remedy by the syringe in the hands of attendants or friends.

The little instrument, which is accurately represented in the figure, is intended as a substitute for the hypodermic syringe, and I venture to hope that many of my professional brethren will find it a simple and economical contrivance, and well adapted for every medical and surgical purpose in which such an instrument is essential. The injector consists of two parts—an elastic measuring ball, and an injecting needle; the latter is provided with a boss, which serves for a handle during its introduction. It is conveniently furnished with a joint, so that the same needle may be adjusted on several measuring balls. The prefix "safety" is employed to indicate the important fact that its simple construction affords a valuable safeguard against accident, and that it renders an overdose practically impossible. The measuring balls are made in different sizes, and each ball is

capable of holding only a definite amount of fluid, the quantity varying from one to twenty minims. The number placed on the exterior of each ball expresses its capacity, so that by selecting an injector the exact dose can be at once administered.

The instrument can be instantly charged by compressing the elastic ball and inserting the joint of the needle or the open end of the joint into the fluid to be injected; and it is generally advisable to repeat this little operation two or three times, to insure the complete expulsion of air. It can be discharged slowly or rapidly under the skin, and this is, of course, regulated by the pressure of the thumb and finger. It can be washed out and cleaned in a moment, and it is no trouble to keep in order for any emergency. It cannot be broken by an accidental fall (which is too often the fate of the hypodermic syringe), and when it is worn out it may be very easily replaced. The injector can be used, if necessary, under the bedclothes, and as a mistake in the dose is impossible, the performance of the operation does not require the guidance of the eye. It has still another important quality, which cannot fail to increase its utility—the cost is so moderate that a separate instrument can be used for every patient as well as for every patient.

In conclusion, the Safety Hypodermic Injector will serve many important surgical purposes, and it is a perfect substitute for the syringe in the treatment by injection of navi and other tumours. It is made for me by Messrs. Mayer and Meltzer, 71, Great Portland-street, W., and can be obtained from that firm in the form of a single instrument, or in a little case containing several injectors of various sizes. The surgical needle is furnished with three openings at the point, to facilitate the escape of fluid into the tissues.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent examinations:—

M.D. EXAMINATION.

Arthur Edward Buckell,(a) University College; William Job Collins, B.S., B.Sc., St. Bartholomew's Hospital; Norman Dalton, King's College; Henry Davy, Guy's Hospital; Thomas Vincent Dickinson, St. George's Hospital; Edward Joshua Elwardes, St. Mary's Hospital; Charles Firth, St. Bartholomew's Hospital; James Percy Alwyne Gabb, University College; Lewis John Hobson, B.S., University College; Greville Macleson MacDonald, King's College; Robert Marmion Gold Medall, Owens College and Manchester Royal Infirmary; William John Nothey, B.A., Royal Infirmary, Edinburgh; Edmund Howard Paddison, Guy's Hospital; Louis Cutman Parkes, University College; Edward Penny, Guy's Hospital; Richard Petch, King's College; Samuel Thomson Plumbe, St. Bartholomew's Hospital; Thomas Carleton Railton, St. Bartholomew's Hospital and Owens College; Beaven Neave Rake, M.B., Guy's Hospital; Amand John McConnell Routh, B.Sc., University College; George Hannah Russell, Guy's Hospital; George James Symes Saunders, King's College; Thomas Dixon Savill, St. Thomas's Hospital; Mark Fortham Sayer, University College; John Edward Squire, University College; Thos. George Stonham, London Hospital; Cornelius Wm. Suckling, Queen's College, Birmingham; Edward George Whittle, University College.

LOGIC AND PSYCHOLOGY ONLY.

George Frederick Barnes, St. Bartholomew's Hospital; Samuel Buckley, Manchester Royal School of Medicine; John Davey Hayward, University College; William Henry Neale, B.S., University College; John Frederick William Silk, King's College; Harold Gilbertson Taylor, King's College.

M.S. EXAMINATION.

Charles Alfred Ballance, Gold Medal, St. Thomas's Hospital; Mark Fortescue Mayo, St. Thomas's Hospital.

B.S. EXAMINATION.

First Division.—David Collingwood, University College; Charles James Pike, University College; Waldemar Joseph Ruckeli, St. Bartholomew's Hospital; Samuel Walker Sutton, St. Thomas's Hospital; Frederick Rothwell Watters, St. Thomas's Hospital.

Second Division.—John Williams Fotheringham, Westminster Hospital; Dudley Wilmot Buxton, University College; Harry Campbell, St. Bartholomew's Hospital; Ernest Clarke, St. Bartholomew's Hospital; William Redford Dakin, Guy's Hospital; Mary Ann Dacomb Scharlieb, Madras Medical College, London School of Medicine, and Royal Free Hospital.

APOTHECARIES' HALL, LONDON.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 14:—

Buckley, Thomas William, Betley, near Crewe.
Canton, Herbert, 339, Camden-road, N.W.
Dodd, Henry Wood, Hildrop-crescent, Camden-road.

(a) Obtained the number of marks qualifying for the medal.

Ledlie, Andrew, Belfast.
O'Kane, Michael, Garlock-road, Camberwell.
Perry, Allan, The Poplar Hospital, E.

The following gentleman also on the same day passed his Primary Professional Examination:—

Crisp, James Ellis, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

SPENCE, WILLIAM JAMES, L.R.C.P., L.R.C.S.Edin.—House-Surgeon to the Bradford Infirmary, *vice* Hollis, resigned.

BIRTHS.

CLARK.—On November 15, at Umritsur, Punjaub, the wife of H. Martyn Clark, M.B., C.M. Edin. Medical Missionary to the Church Missionary Society, of a son.

IRONSIDE.—On December 13, at 8, Highbury New-park, the wife of F. A. Ironside, M.B., C.M., of a daughter.

MARRIAGES.

DAUNT—NICHOLL.—On December 12, at Pembroke Dock, South Wales, Elliot Daunt, L.R.C.P., M.R.C.S., of Pi-tpoint House, Lindfield, to Eleanor Maude Mary, only daughter of J. Nicholl, Esq., of Pembroke Dock.

DUKE—VERDON.—On December 18, at Eastbourne, Surgeon-Major Oliver T. Duke, of the Beluchistan Political Agency, to Blanche, widow of the late Rev. H. B. Verdon, M.A., of Battersea.

HALL—STOCKWELL.—On December 14, at Bath, Richard Henry Nant Hall, J.P., of the Civil Service, Queensland, to Emily Mary Clephane, fourth daughter of Thomas Goldsbrough Stockwell, F.R.C.S., of Lambridge House, Bath.

HUXLEY—BRODIE.—On December 16, at Brompton, James Usher Huxley, M.D., of Torquay, to Margaret Anne, eldest daughter of the late Sir Benj. Collins Brodie, Bart., of Brockham Warren, Betchworth, Surrey.

LAING—HARDING.—On December 16, at Madras, Surgeon-Major James Anderson Laing, Indian Medical Department, to Mary, third daughter of G. P. Harding, Esq., of Champs Elysées, Paris.

PARSONS—CROFT.—On November 11, at Monte Video, Herbert Flower Parsons, M.R.C.S., L.S.A., of San Jorge, Durazno, sixth son of Joshua Parsons, M.R.C.S., of Frome, to Catharine Elizabeth Nowell, youngest daughter of the late John Cooke, Esq., of Middridge Grange, Durham.

POYNDER—NISBET.—On November 13, at Landour, N.W. India, George Frederick Poynder, Surgeon A.M.D., to Mary, daughter of Major-General Nisbett, B.S., of Shirley, Southampton.

DEATHS.

DARWALL, MARY DIGBY, wife of the Rev. Leicester Darwell, vicar of Crigglestone, eldest daughter of John Lee, M.D., of Ashburn, on December 14, aged 34.

DUNSMURE, CATHERINE, wife of James Dunsmure, M.D., of 53, Queen-street, Edinburgh, on December 15.

EDWORTH, ALFRED, F.R.C.S., at 11, Collingham-place, South Kensington, on December 12, aged 61.

HARTLEY, DAVID, M.R.C.S., at 5, Imperial-square, Cheltenham, on December 16, in his 72nd year.

LAWRENCE, GEORGE EDGAR, M.R.C.S., etc., at 31, Claverton-street, Bath, on November 20, at 32.

LLOYD, EDWARD, M.D., L.R.C.P., formerly of Castella, Glamorgan, at Tyn Rhyl, Rhyl, on December 11, aged 82.

PATERSON, JOHN LEATHWOOD, M.A., M.D., M.R.C.S., of Boa Vista, the Grange, Edinburgh, at Bahia, Brazil, on December 9, aged 62.

SHEPHERD, CHARLES DOUGLAS, Fleet-Surgeon in the Royal Navy, at Beach Cottage, Teignmouth, on December 12, aged 61.

SMITH, SARAH ANN, wife of Procheroe Smith, M.D., at 42, Park-street, Gloucester-square, on December 14.

WEST, EDWARD DE LANEY, M.B., C.M. Edin., at Cairo, on December 17, aged 26.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

CUMBERLAND INFIRMARY, CARLISLE.—Assistant House-Surgeon. Salary £40 per annum, with board, lodging, and washing. Applications, with testimonials, to be sent in to the Committee not later than December 26.

DENTAL HOSPITAL OF LONDON, LEICESTER-SQUARE, W.—Dental Surgeon. (*For particulars see Advertisement.*)

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon. (*For particulars see Advertisement.*)

MONMOUTH UNION.—Medical Officer and Public Vaccinator. (*For particulars see Advertisement.*)

OWENS COLLEGE, MANCHESTER.—Demonstrator and Assistant Lecturer in Zoology. Salary £150 per annum. Full particulars of the office may be obtained from the Registrar. Applications, accompanied by testimonials, will be received up to January 1.

ST. MARY'S HOSPITAL, PADDINGTON, W.—Out-patient Department.—Physician. Candidates must be members or fellows of one of the Colleges of Physicians in the United Kingdom, or graduates in medicine of one of the recognised universities. The appointment will be for one year; at the expiration of that time the holder will be eligible for re-election. Further particulars may be obtained of Mr. Pietro Mitchell, Secretary.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Chorlton Union.—The office of Assistant Medical Officer at the Workhouse is vacant by the resignation of Mr. J. S. Main: salary £140 per annum.

St. Asaph Union.—Mr. John William Owen has resigned the Llanfairtalhaiarn District: area 37,175; population 3485; salary £83 per annum.

Spilsby Union.—Mr. J. Johnson has resigned the Burgh District: area 15,417; salary £39 per annum.

APPOINTMENTS.

Berkhampstead Union.—Edwin J. Le Quesne, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Tring District.

Launceston Union.—George Serjeant, M.R.C.S. Eng., L.S.A. Lond., to the Sixth District and the Workhouse.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Dr. Graham.—The late Dr. Alfred S. Taylor published in the *Medical Times*, vol. xxix., 1854, page 326, a most interesting case, "How Families are Poisoned from Scheele's Green in Bakers' Shops." Much has been done since then, in England as well as on the Continent, to prevent the employment of arsenical pigments; but you are right to feel very suspicious of all bright greens.

Botanist.—The Royal Botanical Society occupied its grounds in the Regent's-park under a lease from the Commissioner of Woods. It will expire in 1901.

Temporising.—Touching the threatened dissolution of the Sandbach Local Board by the Local Government Board for not complying with their reiterated directions for the establishment of public waterworks, a town's meeting has been held on the question, when, after an animated discussion, it was agreed to send a deputation to the central authority to point out that a proper supply of water could be obtained from the wells in the town.

Horsiesi.—The mummy is in the Museum of the Royal College of Surgeons. It was unrolled by the late Mr. Pettigrew—in the presence, we believe, of Prince Albert. The late Dr. Young ("Phenomenon Young," as he was called) at the time of his death had no superior as an Egyptologist. To a considerable knowledge of Latin, Greek, and Hebrew, he added that of Chaldaic, Arabic, Syriac, and Persian; French, Italian, Spanish, and German. It is understood that Sir Erasmus Wilson, who has already published one or two works on the subject, is now engaged on another and larger work on Egypt.

Aberdeen Improvements.—The Town Council has agreed to proceed with the Bill, promoted by Lord Provost Esslemont, for the improvement of the city at a cost of £216,000.

A Coroner's Resignation.—An application has been made at the Liverpool Chancery Court, before Vice-Chancellor Bristowe, on behalf of Mr. C. E. Driffield, Coroner for the South-Western Division of Lancashire, for permission to resign his appointment. He had held the post for thirty-one years, and now wished to retire on the ground of ill-health. The application was an unusual one, and it appeared that considerable uncertainty had been felt as to the method of procedure in such a case. After some discussion an order was made by the Court for the issue of a writ *de exonerandum*, to be followed by a writ for the appointment of a new coroner.

Blue Beard.—We cannot quite agree with our fair correspondent, who will see the following lines on seven husbands in Booth's "Epigrams," page 45:—

> "In Stepney churchyard, seven tombs in a row
> For the reader's soft sympathy call:
> On each, 'My dear husband lies buried below,'
> And Chloe's the widow of all."

G. W. P., Bucks.—The owner of an animal suffering from any kind of illness, whether a contagious disease under the Contagious Diseases (Animal) Act or not, can relieve himself of all further responsibility by giving notice of the fact to the local inspector, who is bound to attend immediately and report to the local authority.

Presentation.—Dr. Francis Henderson, Helensburgh, who has occupied a prominent position in practice in Helensburgh and Garelochhead district for upwards of eighteen years, has been presented with a drawing-room timepiece and ornament and £500, and a diamond ring for Mrs. Henderson, on the occasion of his removal to Glasgow.

M.R.C.S., Wimbledon.—The vacant appointment of Surgeon to your police district is in the hands of Mr. Timothy Holmes, who has always exercised a wise discretion in these appointments. The vacancy is caused by the resignation of Mr. Chapman, of Tooting.

Milk Epidemics: Glasgow.—Dr. E. Duncan, in a paper having reference to the prevention and mitigation of disease in the city, takes as his premisses the two facts—first, that during the prevalence of the milk epidemics which had occurred during the past eight years, although there was an unusually large amount of the typhoid poison circulating in the drains and sewers of Glasgow, there was no extension of the fever along the lines of drainage or into the neighbouring houses; and, secondly, that in many instances the house-drains and soil-pipes in these neighbouring houses were very defective, and freely permitted of the flow of sewer-gases containing the typhoid poison into these houses. The obvious conclusion was that in Glasgow epidemics of typhoid fever did not arise from the inhalation of sewer-gases. He held that neither compulsory notification nor the milk clauses in the proposed Glasgow Police Bill would materially diminish the prevalence of typhoid in the city. It was from insanitary farmhouses that the typhoid epidemic of Glasgow sprang. He had no doubt that in many of the milk epidemics Glasgow had only reaped what it had sown.

Infantile Mortality: Improper Feeding.—The Deputy Coroner for Manchester, after holding several inquests on children, said there was no doubt that a great deal of the infant mortality was caused by over or improper feeding. During the last twelve months about two hundred cases of this nature had been before the Coroner. If he could get a jury to come to the conclusion that a mother or person having charge of a child had contributed to its death by feeding it in a reckless way, he would certainly commit for trial on the charge of manslaughter.

F.R.C.S.—Mr. Luther Holden has only resigned his seat in the Court of Examiners. He still retains his chair in the Council of the College of Surgeons.

Denbigh.—The Local Government Board, in replying to the Town Council with reference to an application for a new loan to repair the drains, stated they could not sanction any renewal of the drainage loan before the estimates, plans, etc., of the drainage system were approved by them. The medical officer reports the health of the town as excellent, the death-rate being 12·87 per 1000.

Dietetic.—1. Yes. 2. Dr. Voelcker, in his report to the Royal Agricultural Society, stated that the lard and oleo-margarine cheeses imported from America are wholesome and nutritious articles of food, which cannot be distinguished by their appearance and general properties from ordinary cheeses.

Old Mortality.—Yes; it is very sad, looking at Mr. Barraud's large historical picture of the "Leaders in Medicine and Surgery," published only in 1876, to see how many have already joined the majority, as Watson, Fergusson, Hilton, Taylor, Parkes, Smee, Hancock, De Morgan, Willis, Alderson, Brooks, Harvey, Barnard Davis, Gulliver, Critchett, Farr, Corrigan, etc.

Shrewsbury.—The Hospital Sunday collection this year amounted to £288 5s. 3d., of which £142 10s. was awarded to the Salop Infirmary, and the balance divided between the Eye and Ear Hospital and the Dispensary.

New Waterworks.—The works for supplying the villages in the Vale of Leven, constructed by the local authority of Bonhill at Loch Lomond, have just been opened. The reservoir is capable of holding 5,000,000 gallons of water, and the filtering power is 600,000 gallons per day. The cost is over £5,000.

Tobacco-Smoking and its Social Position: United States.—Tobacco-smoking appears to be largely on the increase in the United States, as well as elsewhere; among youths especially it is rapidly extending. The Head-Master of the Latin School at Boston, Massachusetts, states that tobacco is used by half the boys in the upper classes in his establishment; while the Principal of Harvard Grammar School, in Charlestown, says, "Out of three hundred boys I find very few who have not had a cigar in their mouths at some time, and about 40 per cent. use tobacco habitually." It may be noted that an association of ladies has been formed quite lately in Philadelphia, the members of which pledge themselves not to kiss any man, young or old, who is addicted to smoking.

Emigration, Liverpool.—The returns for the past month show a great decrease in the departures compared with last year, the total being 10,452 last month, against 13,252 in November, 1881. Of the emigrants last month 6431 were English.

Manufacture of French Wines.—It appears from an analysis of wines made at the Municipal Laboratory, Paris, that all wines and liquors imported into France are subject to analysis at the Customs before delivery to the importers, and if found adulterated they are not admitted to entry. There is, however, no inspection or examination of wines exported. In 1881 there were 3001 samples analysed, the result being that 279 were found to be good, 991 passable, and 1731 bad; while in the first five months of the present year 1882 samples were analysed, out of which 372 were good, 683 passable, and 214 bad—145 of these latter being pronounced decidedly injurious.

Associate, King's College.—It was at the "Bull's Head," in Clare-market, that the celebrated Dr. Radcliffe was carousing when he received news of the loss of his £5000 venture in the South Sea bubble. "The Black Jack," in Portsmouth-street, Clare-market, celebrated as the haunt of Joe Miller, the wit and comedian, who was buried in the ground of King's College Hospital, is still the scene of the revels of some few medical students on passing their examinations at the College of Surgeons.

Presentation: Millbank Prison.—An illuminated address was presented last week to Dr. Vans Christian Clarke, R.N., on his transfer from this prison to the Convict Prison for Females at Woking, Surrey. Colonel Garsia, the Governor-in-charge, in presenting the address, spoke in highly complimentary terms of the successful labours of Dr. Clarke, and expressed the hope that his successor would gain from the prison staff a similar recognition of his services when his time came to leave.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE STATISTICAL SOCIETY, London; Messrs. WHARTON AND FORD, London; THE REGISTRAR OF THE UNIVERSITY OF LONDON; THE REGISTRAR OF THE APOTHECARIES' HALL, London; Dr. WARD COUSINS, Southsea; Mr. J. CHATTO, London; THE REGISTRAR-GENERAL FOR SCOTLAND, Edinburgh; Dr. LONGMORE, London; THE SECRETARY OF THE ROYAL INSTITUTION, London; Dr. W. ALEXANDER, Liverpool; Dr. W. CROOKES, F.R.S., London; THE SANITARY COMMISSIONER FOR THE PUNJAUB, Lahore; Dr. CORFIELD, London; Dr. LAWSON, Edinburgh; Dr. J. E. POLLOCK, London; Dr. NORRIS WOLFENDEN, London; Dr. J. MITCHELL BRUCE, London; Mr. J. CANTLIE, London; J. H. SCHOBEA, Berlin.

BOOKS, ETC., RECEIVED—

Injuries of the Spine and Spinal Cord, by Herbert W. Page, M.A., M.C. Cantab.—Report on the Health, etc., of Kensington, from November 5 to December 2, 1882—Contributions to the Vital Statistics of Australia, by James Jamieson, M.D.—Annual Report of the Bolingbroke House Pay Hospital—An Address on Scottish Medical Teaching, by D. C. McVail, M.B.—Female Education, by T. S. Clouston, M.D.—Man before Metals, by N. Joly—The Medical Language of St. Luke, by the Rev. William Kirk Hobart, LL.D.—Report to the Health Committee of Nottingham, etc.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt fur Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal-Zeitung—Centralblatt für Gynäkologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Journal of the Vigilance Association—Journal of the British Dental Association—Demerara Daily Chronicle, November 25, 1882—Australasian Medical Gazette—Philadelphia Medical Times—Ciencias Medicas—Das Echo, December 8 and 15—Ceylon Observer, November 21, 1882—New York Medical Journal—Australian Medical Journal—Detroit Lancet—Christmas Number of the British Workman—Medical News—Students' Journal and Hospital Gazette—Canada Lancet—Canadian Journal of Medical Science.

APPOINTMENTS FOR THE WEEK.

December 23. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

25. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

27. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London, Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Light and the Eye."

29. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 16, 1882.

BIRTHS.

Births of Boys, 1320; Girls, 1249; Total, 2569.
Corrected weekly average in the 10 years 1872-81, 2634·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	982	1014	1996
Weekly average of the ten years 1872-81, corrected to increased population ...	927·7	886·1	1813·8
Deaths of people aged 80 and upwards ...	...	...	97

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Enumerated Population, 1881 (unrevised).	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	669633	...	4	2	2	5	...	11	...	5
North ...	905947	...	43	6	2	8	...	6	...	4
Central ...	282238	...	16	...	4	3	...	...	...	1
East	692738	...	11	14	1	5	...	3	...	2
South	1265927	...	23	19	4	6	...	5	...	8
Total	3816483	...	97	41	13	27	...	25	...	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer ...	29·573 in
Mean temperature ...	34·1
Highest point of thermometer ...	45·1°
Lowest point of thermometer ...	22·2°
Mean dew-point temperature ...	33·0°
General direction of wind ...	S.E., E., & N.E.
Whole amount of rain in the week ...	0·08 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, Dec 16, in the following large Towns:—

Cities and Boroughs.	Estimated Population to middle of the year 1882.	Births Registered during the week ending Dec. 16.	Deaths Registered during the week ending Dec. 16.	Annual Rate of Mortality per 1000 living, from all causes.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Daily Mean Values.	Temp. of Air (Cent.) Weekly Mean of Daily Mean Values.	Rain Fall. In Inches.	In Centimetres.
London	3893272	2569	1996	26·8	45·1	22·2	34·1	1·17	0·08	0·20
Brighton	109595	72	44	21·0	47·0	25·0	36·9	2·72	0·06	0·15
Portsmouth ...	129916	85	58	23·3	...	...	...	...	...	...
Norwich	88821	41	37	21·7	...	...	...	...	...	...
Plymouth	74449	43	35	24·5	50·0	22·8	37·2	2·89	0·46	1·17
Bristol	210134	101	76	18·9	45·0	17·2	30·9	−0·62	0·45	1·14
Wolverhampton .	76756	58	36	24·5	38·5	18·0	28·4	−2·01	0·62	1·57
Birmingham ...	408532	294	186	23·8	...	...	...	...	...	...
Leicester	126275	82	69	28·5	44·8	17·8	31·4	−0·34	0·37	0·94
Nottingham ...	193578	146	108	29·1	37·0	17·5	29·6	−1·31	0·25	0·63
Derby	83587	87	43	26·8	...	...	...	...	...	...
Birkenhead ...	86582	65	34	20·5	...	...	...	...	...	...
Liverpool	560377	427	365	34·0	41·9	17·2	31·5	−0·28	0·44	1·12
Bolton	106767	68	49	23·9	42·1	18·4	30·3	−0·95	0·63	1·60
Manchester ...	340211	237	167	25·6	...	...	...	...	...	...
Salford	184004	153	89	25·2	...	...	...	...	...	...
Oldham	115572	68	60	27·1	...	...	...	...	...	...
Blackburn	105460	63	64	31·4	...	...	...	...	...	...
Preston	97656	82	66	35·3	...	...	...	...	...	...
Huddersfield ...	83418	45	41	25·0	...	...	...	...	...	...
Halifax	74713	47	54	37·7	...	...	...	...	...	...
Bradford	200158	121	82	21·4	38·2	18·6	29·9	−1·17	0·55	1·40
Leeds	315998	176	209	34·5	34·0	19·0	31·0	−0·56	0·33	0·84
Sheffield	297516	217	134	24·1	36·5	13·9	30·0	−1·11	0·86	2·18
Hull	158814	125	86	28·3	41·0	14·0	30·6	−0·78	...	...
Sunderland ...	119055	88	63	27·6	46·0	22·0	31·5	1·39	0·82	2·08
Newcastle	147626	109	74	26·2	...	...	...	...	...	...
Cardiff	85724	49	48	27·7	...	...	...	...	...	...
For 28 towns ...	8169571	5719	4370	26·9	50·0	13·9	31·9	−0·07	0·45	1·17
Edinburgh	232440	131	114	25·6	38·1	6·4	22·5	−5·28	2·17	5·51
Glasgow	514048	374	350	35·5	41·5	7·0	24·4	−4·23	0·10	0·25
Dublin	348293	156	221	33·6	45·9	6·8	24·5	−4·17	0·30	0·76

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The lowest reading was 29·37 in. on Wednesday morning, and the highest 29·74 in. on Saturday morning.

ORIGINAL LECTURES.

CLINICAL LECTURES ON DISEASES OF WOMEN.

Delivered in St. Bartholomew's Hospital.

By J. MATTHEWS DUNCAN, M.D., LL.D.,
Physician-Accoucheur and Lecturer on Midwifery at the Hospital.

LECTURE VI.

ON PESSARIES IN MINOR DISPLACEMENTS.

My lecture to-day is on the use of pessaries in minor displacements—general views, not particular statements. On the treatment of the great procidentia I shall speak another day.

My feeling of difficulty and embarrassment I am sure ardent student-youth cannot appreciate. They do not see and feel the mist around the subject as they will do when they come into practice; and, attempting to guide you, I feel that I do not myself know the straight scientific road to the clean and sweet drops of truth I would like to present to you. Consequently I shall deal much in negatives—Not this way nor that is the right one.

Now, in the present great abundance of contorted bits of wood, and metal, and vulcanite, and what not, called pessaries, my advice to you is Punch's advice to a young man contemplating marriage—Don't! Think twice before beginning the often baneful practice of using any instrument, teaching a woman to depend on what, if not positively useful, is positively injurious, though perhaps not much so. Many a woman has suffered from, and many a woman has died of, a pessary; but most pessaries, as I find them in use, are nearly innocuous for evil or for good. They are always harbourers of dirt, and they always keep the mind watching the part; they are all liable to decay, and require, if long used, to be renewed. They all are undesirable additions to the contents of the pelvic excavation, and, if they are efficient, must, of course, cause more pressure, though perhaps on different parts, than that caused by the organ or organs which they keep in an altered position.

Pessaries are used for the purpose of keeping up replacement of descended or otherwise displaced organs, or of displacing the organs and keeping them displaced, or of fixing or nearly fixing them against the results of succussion or shaking; and all these come into the one category of mechanical objects. But you sometimes see what are called galvanic pessaries, whose object is to act otherwise than mechanically, giving a homœopathic dose of galvanism. These galvanic pessaries are used in amenorrhœa and in virgins; and to all this kind of meddling there are strong objections, medical and moral. Till you know something more precise in its favour than the vulgar talk of "cures" you should have nothing to do with it. Look upon pessaries as a surgeon looks on a truss, not medicinal otherwise than as a mechanical means of procuring healing, comfort, and safety to your patient.

Speaking of virgins, I may say that there is very rarely occasion to examine such for displacement, and that, when examination is made, it can generally be done quite satisfactorily per rectum. You get the knowledge of the condition of the pelvic viscera that you want, and that is all you should require. If you find only a minor displacement you had better let it alone, not even trying a pessary. It is only in very rare complicated cases with distinct mechanical indications that a pessary should be tried or used. I do not remember myself using one on any ground whatever in a virgin.

Intra-uterine or stem pessaries are the only instruments you can rely on for straightening the uterus, or keeping a flexion undone. They do this as a male bougie straightens the urethra. Some kinds have an outside or pubic part by which the straightened uterus is fixed; but the oldest kind and the most recent respect the mobility of the uterus. They have been three times introduced into practice within this century, but the practice has never flourished. Many modifications have been ingeniously devised with a view to perfect them, but in vain. I do not expect they will ever find occupation in the conditions now under discussion. They are far more injurious and dangerous than the conditions they are intended to mollify. There is no such instrument in "Martha."

The evils of intra-uterine pessaries have led to great ingenuity in attempts to undo flexions and keep them undone by vaginal, not intra-uterine, instruments. This attempt is often successful in retroflexion which does not occur as a congenital rigidly fixed condition, and can be dealt with just as a retroversion is managed. But the curious things are anteflexion pessaries; and in regard to their giving relief I meantime express no opinion; but I do say that if they give relief it is not by undoing the flexion and keeping it undone, keeping the womb straight. I have seen most kinds of anteflexion pessaries as placed by their inventors, and too often replaced and replaced, but I have never seen one materially modify the flexion. I have myself never used one, and have no intention of doing so. There is another bad and too common practice which I must not omit to mention here, that is, what is called straightening or putting up the womb or replacing it time after time by the probe or finger. This has no other effect than to irritate the organ, for the displacement recurs immediately after the probe or finger is removed, as the practice itself shows.

It is not a simple matter to judge of the part taken by a pessary in relieving or removing painful symptoms. A kindly doctor makes an amiable patient anxious to please him and ready to express a sense of relief which may not be real. Besides, you will find many patients alarmed at the idea of having a displacement, and, believing the pessary undoes it or cures it, wear an instrument with satisfaction and even pleasure, although it gives them new pains or increases what they had before. Such patients live in the pleasing and sustaining delusion that the pessary is curing them, and object to its removal even when removal gives relief, and although told that the pessary, when in, does not alter the condition of displacement. In such difficulties how are you to be guided? The difficulty is almost insuperable if your patient has become possessed by erroneous notions of the importance of displacements; and you must take care to prevent the adoption of such notions.

You must guide your patient's mind aright, and take care of the displacement, acting on two principles—first, not to allow harm to come through your treatment; and second, that practice overrules all theories in the present imperfect state of our knowledge; that is, if your patient gets real relief from any kind of pessary that does not do important harm, let her have that relief.

This leads me to enter more carefully on the question—What do you expect from a pessary?

You may replace a descended or retroflexed or retroverted uterus, and keep it replaced by a pessary, and you may so relieve or remove pains. You cannot cure a displacement, though sometimes you can substitute one displacement for another, that is, for example, change a retroversion into an anteversion. No doubt a displacement may sometimes be, in a sense, cured—as when an adhesive perimetritis ends in tying a uterus up to the higher part of the sacrum. But all kinds of minor displacements are incurable by any kind of instrumental treatment. Remove the instrument, and the displacement is just as it was before, or there is a new alternative one, and this, however long the instrument may have been in place.

Displacements sometimes disappear, or are cured spontaneously or by aid of proper treatment. Thus a woman with chronic inflammation of the cervix, and probably also relaxation of the vagina, gets rid of these conditions, and then the uterus ascends from its descended and perhaps flexed position. A woman with a bulky uterus, perhaps containing a small fibroid, becomes aged; the uterus becomes lighter and lighter, and the upper vagina contracts, and the descended uterus ascends. Any change in the constitution of the abdomen which increases its retentive power will raise the uterus higher, destroying displacement, and such changes in the abdomen may result from enlargement of the base of the thorax, or from changes in the quantity and disposition of fat.

I have already said that a pessary often cures by its effect on the mind. A patient recently said to me, "You have quite cured me. I can walk now, but not without that pessary." And she was not altogether pleased when I told

her she had no pessary,—that I had removed it months previously without her being aware of my having done so. I had omitted to tell her. Had she known she had no pessary she would have found pains arise from walking, and all this without any desire to be untrue.

A pessary often gives relief, even when small, and having no discoverable function, doing nothing. Of the occasional occurrence of such cases I do not doubt, and I am quite unable to explain them. It is of such cases I was thinking when I told you that practical success must overrule theory, or take the place of a failure in theory. It is quite common to find a pessary give relief in what may be called a flexion, because that feature of the case is most striking, without the pessary changing the flexion. In such cases the pessary may maintain a diminished degree of descent, and may prevent increase of descent on walking and may save a tender part of the uterus from pressure on sitting. There is no difficulty in explaining such cases; but to comprehend the action of the pessary you should think of the case as one of descent—not of flexion; and this is true of almost all —if not all—cases of flexion.

As a matter of fact, I find the majority of versions and flexions, as observed in practice and treated by pessaries, have their whole conditions of displacement quite unaltered by the pessary, even while in.

One of the best examples of relief by a pessary is observed in the anteversion (by probe) of an engorged retroverted and descended uterus. Here a well-fitted Hodge is comforting and curative, maintaining the anteversion, elevating the uterus or preventing descent on walking or standing, and preventing relapse into retroversion or retroflexion by keeping the posterior laquear of the vagina pressed against the sacrum.

Another notable example of relief is seen in descent with tendency to cystocele, when the irritation of the cystocele pushing at the orifice of the vagina is most annoying. In such, a suitably sized Hodge, or india-rubber ring, often, by its anterior limb, just catches the cystocele and obviates the tendency to protrusion through the os vaginæ.

For each case your pessary must be specially adapted—a a boat-shaped, or a double-curved,—and it must fit the patient in size and contour. Nothing can instruct you in this but bedside experience. Occasionally you have to try more pessaries than one to find the most suitable. Sometimes a woman, whose case you expected to relieve by pessary, can bear none of whatever kind.

A pessary, if it is to be useful, will give relief at once, and will need very little attention from you. If you are frequently fitting and readapting, you are almost surely doing more harm than good. A well-fitted pessary may be worn for months without being attended to. You must take care that the pessary does not cause ulceration and cut the vagina, and you must have a new one placed when the former one gets decayed.

You will find it hard to get any good from a pessary unless you have a fair amount of perineum to support it. A pessary will be inefficient if the vagina is not long enough and capacious enough to allow of its action without strong pressure on the vaginal wall.

In flexion or version, without descent of the whole organ, you can do no good to the version or flexion by a pessary: you have no basis or fulcrum to work from.

The Preparations of Aconite.—Dr. Squibb, in his "Ephemeris," states that the fluid extract of the root is the best preparation for internal use. The dose is one minim every three hours, or oftener. For external use there is probably no better form than an oleate of aconitia, made by dissolving two grains of aconitia in ninety-eight grains of oleic acid. A fluid ounce of oleic acid, weighing 412 grains, requires 8·25 grains of aconitia to make a 2 per cent. solution, each minim of which contains about one-sixtieth of a grain. This quantity, applied locally, is a sufficient dose, and should in a short time produce constitutional effects by absorption. It should be applied to the surface by the cork of the phial or by some non-absorbent, and about the head and face needs no covering, great care being taken that it does not get into the eyes. If applied under the clothing it should be covered with oiled silk or rubber tissue. Local neuralgias are much better reached by the dermic or epidermic method. —*New York Med. Record*, November 25.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF SCIRRHUS OF THE URINARY BLADDER.

(Under the care of Mr. BERKELEY HILL.)

[For these notes we are indebted to Mr. Horsley, Surgical Registrar.]

B. B., aged seventy-three, a gardener, was admitted under the care of Mr. B. Hill on October 26, and died October 29, 1882.

Past History.—The patient has never had gonorrhœa or anything at all wrong with the urinary organs till three or four years ago, when the present trouble began. He was married at the age of thirty-six, and has been a widower for the past seven years. He has not taken any alcoholic liquor for the past few years; before this he took a pint or two of ale per day. Four years ago he noticed his urine to be thick and stained with blood. Sometimes it was quite red, at other times contained clots, at other times was quite clear; most frequently it was clear at commencement of micturition, blood following at the end; there was also increased frequency in passing water. Occasionally he experienced pain in the penis at the end of micturition; never between times. Twelve months ago this frequency of micturition increased rapidly—sometimes as often as ten times during the day, and ten to twelve times during the night,—and latterly he has hardly been able to hold his water at all. For the last four months he has had constant pain in the end of the penis; none in the perineum. There has been also increasing difficulty in micturition. There is no history of renal colic. His family history is good. There is no gout.

Present Condition.—The urine is passed every quarter of an hour, night and day, about one tablespoonful at a time; patient has no control over, or knowledge of, the micturition, but feels a pain afterwards. There is no sense of weight in the perineum, but pain is felt there when it is pressed upon. The bladder does not appear enlarged. Prostate, examined per rectum, feels hard and nodular; not greatly enlarged. During the afternoon the House-Surgeon (Mr. Elgood) found dulness over the whole hypogastric region; he passed a flexible catheter, but only a few drops of blood-stained urine escaped.

October 27.—Mr. Hill passed a flexible catheter. A sensation was felt as if the catheter impinged on a hard substance. The catheter being withdrawn, its eye was found to be plugged with masses of mucus. The patient was put under chloroform, and a silver sound passed. No hard body could be felt. The finger, passed into the rectum, felt the right half of prostate to be hard, and in the middle line a hard and somewhat movable nodule about the size of a pea was also felt. The sound was withdrawn, and a No. 8 catheter introduced, and when this was withdrawn its eyes were found filled with a tenacious grey shiny mass. A portion of this, examined under the microscope in glycerine, was seen to be an accumulation of small spheroidal cells undergoing fatty degeneration, among which bloodvessels, elastic fibres, pus-cells, and bladder epithelium were also observed. A few large-sized crystals of triple phosphates were also present.

28th.—The patient was very low and ill. He had scarcely slept during the night. A hypodermic injection of morphia was given.

29th.—It had been proposed to open the bladder by the lateral lithotomy incision, but the patient's condition forbade any such operation. He died about mid-day.

Autopsy.—Brain and spinal cord were not examined. Heart was normal. No fluid in the pleura, which was not thickened generally, but adherent in a few places. There were four or five deposits in the visceral pleura, or in the periphery of the lung, of a whitish, tough, cartilaginous material; there was much puckering around. Lungs otherwise fairly healthy. Neither the bronchial nor mediastinal glands were enlarged. There was no secondary growth in the mediastinum. Liver congested, otherwise normal. Spleen normal ("old man's spleen"). Ureters were both much

dilated and contained some clear urine. Kidneys: Right smaller than normal; capsule opaque and slightly thickened; numerous cysts on the surface, some size of an almond, others size of a pea. On section the pelvis was found dilated; no pyelitis; kidney substance pale; a few small cysts scattered about. Left smaller than normal; undergoing cystic degeneration; pelvis very much dilated; substance pale and wasted. The contained fluid was only slightly turbid and not stinking. Capsule thickened.

Lumbar glands: All the lymphatic glands at the sides and in front of the lumbar spine were enlarged, tougher than natural, and of a yellowish colour; on section, they were found to be firm and not caseating. There was an evident new growth in one gland. The bladder, prostate, and urethra were removed together. On slitting up the urethra, an ulcerating patch with sloughy edges was seen about midway down it; the ulceration had not gone beyond the submucous tissue. The prostate, to the naked eye, appeared healthy; there was no new growth in it, nor was it enlarged. The bladder contained some thick, dirty yellow fluid, with flakes of solid material in it. It was contracted and generally thickened. Just above the prostate there was a large mass, of the size of a Maltese orange, occupying the anterior and lateral portions of the organ. On dissecting this the tumour was found to be quite separate from the prostate, having a well-marked capsule of its own. On section it was white and tough, with intersecting white fibrous tissue. The growth was beneath the mucous membrane, which was not ulcerated, and projected into the bladder. The walls of the bladder generally were much thickened, especially about the base. The new growth was examined microscopically, and proved to be scirrhus cancer; everywhere the cells were degenerated and the stroma thick and fibrous; in some places the stroma was thicker than in others, notably in the secondary deposits in the lumbar glands.

[It is much to be regretted that this man did not sooner come under treatment, as it would appear to have been a case in which operation would have prolonged life considerably, even if a cure could not have been hoped for.—*Rep.*]

THE ROYAL INFIRMARY, LIVERPOOL.—At the public meeting held in Liverpool on the 15th inst., when it was decided that a new hospital should be built to replace the old Infirmary, the sum of £100,000 was asked for to carry out the resolution; and at the close of the meeting the Treasurer was already able to announce that very nearly the sum asked for had already been promised. The list of subscribers included the following:—Colonel A. H. Brown, M.P., £7000; executors of Mr. R. L. Jones (per Mr. Edward Whitley, M.P.), £5000; Mr. Henry Tate, £5000; Mrs. Charles Turner, £2000; Messrs. Balfour, Williamson, and Co., £1500. The following gave £1000 each:—Messrs. Wm. Rathbone, M.P., S. G. Rathbone, H. W. Gair, H. B. Gilmour, S. Smith, M.P., R. Brocklebank, T. Brocklebank, R. Brocklebank, jun., A. Heywood, D. Jardine, J. G. Robinson, G. Scholefield, Ismay, Imrie, and Co., S. H. Thompson, J. Lister, T. and J. Harrison, Mrs. J. P. Heywood, Mrs. Vose (in memory of Dr. Vose), and Sir Thomas Edwardes-Moss, Bart. Lord Derby in his letter promised £1000, and Lord Sefton also promised a donation not specified. Some friends, Mr. Brocklebank added, had offered £5000, provided four other persons subscribed a like sum. They had received three donations to this amount, and only need another £5000. The London and North-Western Railway Company gave £25,000, and a like sum had been received by the sale of the Lunatic Asylum.

QUININE ADULTERATED WITH CINCHONINE.—M. Laborde stated, at the Société de Biologie (*Gaz. des Hop.* December 19), that the quinine used in the Paris hospitals contains sometimes as much as 43 per cent. of cinchonine, and that the two substances differ much in their actions. He has proved this by experiments of injecting both substances hypodermically in guinea-pigs, when death is produced much more rapidly by the adulterated than by pure quinine. Some *pharmaciens*, he observes, under the mistaken idea that the action of both substances is alike, substitute, either partly or wholly, cinchonine for quinine. This is very important to be known, especially in typhoid fever, which predisposes to some of the accidents resembling those produced experimentally by cinchonine.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning: Advertisements must therefore reach the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, DECEMBER 30, 1882.

ANNUS MEDICUS 1882.

NEITHER as to the general death-rate, nor from the point of view of the weather, does the year so nearly ended call for special remark. The weather was, as a rule, indifferent: at one time there seemed to be good promise of a dry and sunny summer and autumn; but instead thereof came wet and chill weather, neither good nor altogether bad. And the rate of mortality through the year may be said to have shown a like character: not so good—that is, not so low—as in the exceptional year 1881; but so low as to encourage the belief that our sanitary measures and proceedings are really effecting a marked and pretty steady reduction in the number of deaths from "preventable" diseases.

Parliament met at about the normal date, in February, but was only adjourned in August, instead of being prorogued in that month; met again in October, and was not prorogued till December 2. During the latter, and much the shorter, part of the session, the House of Commons—and practically only that House of the Legislature sat—was almost entirely occupied with the business of amending its own rules of procedure; and during the earlier part, legislation for Ireland again absorbed almost the whole energies and time of the Government. There was not even a show of any attempt to meddle with medical legislation, and no measures of any scope or importance bearing on the public health were debated or passed. But the year has, nevertheless, been by no means unproductive of events that must have, in time, very important effects on sanitary legislation, and on legislation for the medical profession. The report of the Select Committee of the House of Commons, first appointed in June, 1879, upon the administration, operation, and effect of the Contagious Diseases Acts of 1866 and 1869, was published in August. The Select Committee was first appointed in June, 1879, and was subsequently reappointed four times. The subject was considered under two main heads—the hygienic effects of the Acts, and the constitutional, moral, and social aspects of their principles and

administration. The report is a very important and able one, and contains a mass of most valuable information. Under the first head of the inquiry, the Committee prove by statistics the beneficial effects of the Acts on the efficiency of the Army, and report that, in their opinion, the Acts have also had a beneficial effect in reducing the amount of venereal disease among the civil population, and in diminishing the virulence of the disease among the prostitutes in the subjected districts; concluding by saying "the extent to which the Acts have diminished the primary and constitutional syphilis in the subjected districts appears of itself to your Committee to establish the hygienic utility of the Acts. The diminution of gonorrhœa in the subjected districts, attributable to the Acts, in the same period, is less considerable, but substantial." Passing to the second head of the inquiry, the various objections urged against them by the opponents, and the advantages, other than hygienic, claimed for them by the advocates of the Acts, received the most thorough and conscientious attention and investigation: and the Committee came to the conclusion that the objections were not sustained by evidence. They report that "the charges of misconduct brought against the police have broken down," and they "desire to record their concurrence in the opinion expressed by the Royal Commission (of 1871)—'that the police are not chargeable with any abuse of their authority, and that they have hitherto discharged a novel and difficult duty with moderation and caution.'" The Committee hold it proved that the Acts have been beneficial by the diminution of prostitution, and especially the diminution of juvenile prostitution, by the improvement of the physical condition of the women, and by the promotion of public order and decency in the subjected districts. The Committee, therefore, could not, of course, recommend the repeal of the Acts; but they do not think that public opinion is as yet sufficiently enlightened as to their value to make the extension of them advisable. The Committee, however, make some recommendations for increasing the efficiency of the existing Acts. The Report of the Royal Commission on the Medical Acts, appointed in May, 1881, was published in June last. The terms of the Commission were very full and comprehensive, and the Commissioners spared no trouble in the endeavour to thoroughly carry out the important inquiries entrusted to them, and to arrive at conclusions that might have a practical value. They held forty meetings. They examined a large number of persons, and had from others and from the several licensing bodies written statements on the subject to be inquired into; and they examined the various Medical Acts Amendment Bills that have from time to time been introduced into Parliament, and the evidence given before the Select Committee of the House of Commons appointed in 1879 and 1880 to consider certain of those Bills. The outcome is a document that occupies twenty-seven closely-printed pages, only twelve of which, however, are taken up by the report itself, the remaining fifteen containing seven memoranda from six of the Commissioners who dissent from various parts of the report. The matter dealt with, and the conclusions arrived at, are treated of in the report in nine sections and eighty-four subsections. Even an outline of these cannot be given here, but the most important parts by far are contained in Section I., which concerns "the grant of medical licences," and Section II., which concerns "the General Medical Council." The Commissioners are of opinion that "the holding of a licence ought to be conclusive evidence of sufficient proficiency in medicine, surgery, and midwifery," and that such a standard of proficiency can only be secured by reducing the number of licensing authorities. Their proposal for the reform of all present shortcomings is, stated in general terms, "that there shall be one Medical Council, and that in each of the three divisions of the kingdom there shall be a divisional board representing all the medical authorities of the division; that the right of admitting to the Medical Register, and a general control over the proceedings of the divisional boards, shall vest in the Medical Council; and that, subject to such control, each divisional board shall, in its own division, conduct the examinations for a licence." The divisional boards are to be very important bodies. Each is to contain "one or more delegates of each chartered university and medical corporation"; the number and proportion of such delegates being fixed in the first instance by Parliament, and provision made for a decennial revision of the allotment of members by the Medical Council. The chief duties of each board are—to appoint a certain number of persons to be members of the Medical Council; to prepare regulations for courses of professional study, and rules for examinations; to nominate, from time to time, the medical educational bodies whose certificates shall be accepted as to sufficiency of education, and from time to time expunge, when desirable, any so nominated; to ascertain the efficiency of the medical schools; to appoint examiners for the divisional board examinations, and to supervise those examinations; to visit other examinations; and to make an annual report to the Medical Council. The Medical Council is to be the supreme controlling authority with regarding to medical licensing, and its powers are to be enlarged with that view. It is to consist of eighteen members, chosen for a term of five years, and eligible for re-election: six are to be Crown nominees, two to be elected by the registered members of the profession resident in England, and one each by the members resident in Scotland and in Ireland respectively, and eight to be elected, in similar proportion, by the three divisional boards. The Medical Council is to be "the sole licensing authority." It will be in general communication with the boards, will be familiar with their opinions through the members sent by them, and will have full powers of control over them. And should any board fail to perform its duties, the Medical Council is to be empowered to act in its stead. The remaining sections of the report provide, generally, the means of carrying out the foregoing main proposals; and for all other conditions of education, examinations, grant of medical degrees, memberships, fellowships, etc. Should the Government be able during the next session of Parliament to introduce, and gain serious discussion of, measures of home legislation, a Medical Bill drawn on the lines of the report of the Royal Commission may be expected. The report is signed by all the members of the Commission, and though its importance and weight must be held to be in some measure diminished by the able protests from nearly half the members against some of its provisions, yet it must have great influence with both the Government and their supporters; and indeed with all who earnestly and with singleness of object desire that the agitation for medical reform shall be ended, and that the Medical Council, and all bodies concerned with medical education, shall be left to work without disturbance for the good of the public and the profession.

The Royal Commission appointed in November, 1881, to inquire respecting fever and small-pox hospitals published their report in October last. The report, together with the minutes of the evidence taken by the Commissioners, and thirteen appendices, makes a volume of some 500 pages, containing a mass of information on the various matters inquired into that is simply invaluable. Articles on the conclusions and proposals of the Commission have been given in our pages, and only the most important of the results arrived at can be stated here. The chief points as to which decisions were required were—1. Whether the

Metropolitan Asylums Board hospitals had or had not injuriously affected the neighbourhoods in which they were situated; and, 2. Whether, as regards the metropolis, the present arrangements for isolation of infectious fevers are satisfactory and adequate; and if not, what other arrangements should be made, in order to secure, as far as possible, the welfare of patients, and the protection of the public against contagion. With regard to fever hospitals, the Commissioners are of opinion that if properly and well managed they involve no appreciable risk to the neighbourhood in which they are situated; and, therefore, they propose that the existing hospitals of the Asylums Board shall be retained for the treatment of infectious fevers other than small-pox, provision being made for the removal of the convalescents from such fevers to county hospitals. But with regard to small-pox, the Commissioners are of opinion that it is clearly established "that by some means or other the Asylums hospitals, in their present shape, cause an increase of small-pox in their neighbourhoods"; and after considering, most minutely and carefully, how this comes about, they conclude that, "so long as it is not proved that 'personal communication' is adequate to the explanation of the whole spread of small-pox, and so long as distant 'atmospheric dissemination' is not shown to be in the highest degree improbable, so long is it essential, in the construction and management of small-pox hospitals, that both sources of danger should be, with the utmost care, guarded against." The Commissioners are satisfied, however, that small hospitals for small-pox cases may be carried on without danger to the district in which they are placed; and that such small-pox hospitals, each consisting of a separate administrative block with a few small wards, may be safely established within the precincts of the fever hospitals; these small hospitals to be *district* hospitals, and each providing for thirty or forty small-pox patients; the mild and the convalescent cases are to be provided for in county hospitals. The Commissioners insist that protection against legal proceedings must, to a certain extent, be given to the managers of the existing small-pox hospitals, and that they should have, under certain restrictions and safeguards, powers for the compulsory purchase of new sites. Other points of great importance also receive due consideration, such as the compulsory notification of infectious diseases, the isolation of cases, and the perfect carrying out of all steps necessary for the protection of the public. The Commissioners are strongly of opinion that the prevalence of small-pox in the metropolis "is due, far above all other causes, to the neglect of vaccination"; and they think it of the utmost importance "that searching inquiry should be made as to the actual state of vaccination in the metropolis, and its effect on the prevalence of the disease, and that the results of this inquiry should be made generally known"; these last words conveying, is may be supposed, a hint—by no means unnecessary—to the President of the Local Government Board. The last point in the Commissioners' report that we will notice here—and it is of the highest importance—is their recommendation that the provision of hospital accommodation for persons suffering from infectious disease in the metropolitan districts be entirely disconnected from the administration of the Poor-law, and treated as a part of the sanitary arrangements of the metropolis. The Commissioners were much aided in their inquiries by some reports on small-pox hospitals by medical inspectors of the Local Government Board; and especially by Mr. W. H. Power's report "On the Influence of the Fulham Small-pox Hospital on the Neighbourhood surrounding it," and Dr. Thorne Thorne's report "On the Use and Influence of Hospitals for Infectious Diseases,"—two of the most valuable papers ever published by the Local Government Board. At the end of June a Royal Commission was appointed to inquire into and report upon the system under which sewage is discharged into the Thames by the Metropolitan Board of Works; also as to whether any evil effects result from it, and, if so, what measures can be adopted with a view to their abatement. A controversy upon these subjects has been carried on between the inhabitants along the banks of the river and the Thames Conservators on the one hand, and the Board of Works on the other, since 1869; and the Report of the Commission will be looked for with the greatest interest, as affecting the metropolis and, in a lesser degree, all places where sewage is discharged into rivers and estuaries.

The General Council of Medical Education and Registration met, for their thirty-third session, on Tuesday, June 27, and sat for eleven days. Since the constitution of the Council, in 1858, they have once (in 1877) sat thirteen days; in 1864 they sat for twelve days; and on four occasions, previous to the present year—viz., in 1865, 1869, 1868, and 1876—they held sessions of eleven days each. It cannot be said, however, that the long session of 1882 was fruitful of good work. The opening address from the President was pervaded by a certain tone of sadness and melancholy; and this was not very surprising, seeing that the report of the Royal Commission on the Medical Acts had just been issued, and recommended certain grave alterations in the constitution of the Council. But it cannot be said that the talking power of the Council, collectively or individually, showed any signs of lowered vigour or endurance. An unusually large number of new members were introduced before the business of the Council began: Mr. Marshall taking his seat as representative of the Royal College of Surgeons of England: Mr. Thomas Collins appearing as representative of the Apothecaries' Hall of Ireland: Dr. Lyons, M.P., as Crown nominee for Ireland; Dr. T. King Chambers as representative of the University of Oxford; and Dr. Patrick Heron as representative of the Royal College of Surgeons of Edinburgh. The Council had before them a report from the Preliminary Scientific Examinations Committee. This Committee had again been in communication with the several licensing bodies in order to ascertain if they could, and would, separately or jointly, take steps to promote the establishment of a preliminary scientific examination, to be of necessity passed by all candidates for qualifications to practise, "either before commencing the purely medical curriculum, or at latest before the end of the first year thereof." Only five of the licensing bodies had replied, and their answers "consisted mainly of an expression of their adherence to the opinions expressed in their former communications"; so the matter remains in the position in which it was left in 1881. A large part of the session was devoted to the "Report on Visitations (1881-82) of Examinations of the Medical and Surgical Corporations of the United Kingdom; and the remarks thereon by the bodies visited." The Report is very full and minute, the Visitors, Mr. Teale, Professor Gairdner, and Mr. Stokes, having evidently been deeply impressed with the importance of the duty entrusted to them, and as evidently having performed it with the most conscientious thoroughness and diligence. The discussion of it occupied the Council for the greater part of five days. The Visitors had appended to their Report thirteen "conclusions" as to points that they thought desirable in the conduct of medical examinations, and the discussion of the Report took the form of a series of debates on these conclusions. Some of the conclusions already formed part of the Council's published recommendations, and of the rest it can hardly be said that they contained any new idea or suggestion for the improvement of methods of examination; but most, if not all of them, were almost as keenly discussed as if they had been new propositions. In

the end, after consideration in committee of the whole Council, and consideration by the Council of the Report of the Committee, seven of the thirteen conclusions of the Visitors were adopted as "resolutions" of the Council, all of which that could be held to present to the examining bodies any difficulty of execution being toned down by the insertion of the words, "it is desirable that" so and so; and as regards two others of the Visitors' "conclusions," which had been adopted by the Council in committee, the Council were content with directing the attention of the authorities to them. We cannot afford space here to set out the resolutions at length, but must be content to refer our readers to the full reports of the proceedings of the Council contained in our pages. As to the debate, it will be remembered that the most noteworthy and important speeches were, that of Professor Turner on the impracticability and the needlessness of the "conclusion" or recommendation of the Visitors that "Every primary or first part examination shall include dissections by every candidate," and Mr. Marshall's speech on the "conclusion" against any sharp limitation of time in the oral examination of candidates. On the whole, it will be generally thought, we suspect, notwithstanding the acknowledged ability and high standing of the Visitors, that neither their Report nor the discussions on it were, in practical value, worth the large amount of time, labour, and money expended on them. Leaving out of consideration the money value of the time devoted to the Report by the Council, the cost of the Report itself amounted to a very large sum.

The judicial functions of the Council were exercised in several cases brought before them. The most important of these was a complaint against Mr. David Beatson Murdoch, who was shown to have three different dispensaries, which were worked chiefly by unqualified assistants, and who had recently been censured, in two instances, by coroner's juries for "allowing Colonel Griffen and other unqualified men to practise in his name." The matter was gone into very fully and minutely by the Council, with the result that they came to the conclusion that Mr. Murdoch had been "guilty of infamous conduct in a professional respect," but they did not order his name to be removed from the Medical Register, "believing that he had undertaken to discontinue the various acts which had been complained of." The Medical Alliance Association had, greatly to their credit, brought the matter before the Council; and it may fairly be suspected that the determination of the Council to consider the complaint made to them was, at the least, quickened by the Home Secretary's remark, in reply to a question put to him in the House of Commons upon the subject, that the Medical Council had "power to act" in such cases. Be that as it may, the proceedings of the Council on this occasion are of great importance, and must, it may be expected, act as a warning to medical men who virtually entrust the working of "dispensaries" to unqualified assistants: for, should a like case be again brought before the Council, they will, it may be supposed, put in force their power of erasing the name of the delinquent from the Register. In another case, that of a fellow and member of the Royal College of Surgeons of England, who had been convicted of feloniously setting fire to a certain house in his possession, the Council ordered his name to be removed from the Register: it had already been erased from the list of the fellows and members of the College. Two other cases brought before the Council were referred to the Branch Council for England for further investigation. A plea *ad misericordiam* for restoration to the Register was presented from a practitioner whose name had been erased from the Register six years ago, on his conviction and sentence to two years' imprisonment. Motion was made to restore the name, but a question was raised as to whether the Council had power to do so, and after a short discussion it was resolved that the opinion of counsel be taken as to the power of the Council to restore to the Register the name of a person erased under Section 29 of the Medical Act.

The Council had before them a draft Bill for the Registration of Midwives in England and Wales, forwarded from the Privy Council Office, with a request that the Medical Council would favour their lordships with any remarks they might think desirable to make thereon. The Council appointed a committee to consider and report upon the Bill; and a considerable time was spent on the consideration of this committee's report. It proposed that the Council should express their readiness to accept the responsibility of appointing a Midwifery Board, and of receiving reports from it, reserving to themselves the power of approving or disapproving the proceedings of the Board, and reporting the same to the Privy Council; the Midwifery Board, so appointed, to do all the work of carrying out the principles of the Act. Three resolutions were adopted, to the effect that it is desirable to provide means, under legal sanction, for granting credentials of qualification to competent midwives, and to provide that the lives of women in labour shall, as far as practicable, be protected from the incompetent; that the conditions of any Act shall provide for the due training, examination, certification, and registration of qualified midwives, while vested interests are to be recognised on the production of certain certificates; and that all registered midwives must be subjected to supervision and control. Mr. Simon and Sir William Gull moved to make the Bill permissive only; but after a prolonged discussion the proposition was rejected. The general feeling must be that any measure of the kind must be anything but a permissive one, if it is to be of the least practical value. Finally, the report of the Committee was adopted. It might have been expected that the experience of the Council in regard of the Dentists Act would have made them very unwilling, to say the least, to undertake the training, examination, and registration of the midwives also; but if they are to accept that burden, the machinery of a responsible board, under the supervision and control of the Council, will probably be the least objectionable mode of carrying out such a scheme.

A Committee, which was appointed early in the session "to consider and report to the Council on the list of bodies whose examinations in general education are at present recognised by the Council," presented an *interim* report. They recommended that the examinations of the Intermediate Education Board of Ireland be added to the list: and they postponed the completion of their report till the next session, and meantime proposed to obtain from various Indian, colonial, and foreign universities and colleges information on certain points with respect to their examinations recognised by the Council. The report was adopted. A committee was also appointed "to consider the abuses which arise from the employment of unqualified assistants by registered practitioners, and to report to the Council whether any means can be adopted for checking these abuses"; and on the last day of the session a third committee was appointed "to inquire into and report upon the deficiency of subjects for anatomical and surgical teaching and examinations, and to suggest such remedies as they may deem expedient."

The questions so much disputed in regard to the purity and the proper formation of the Dentists' Register came again before the Council. The history of the matters in dispute between the Medical Council and their Executive Committee on the one side, and the British Dental Association on the other, was fully given at page 764 of our second

volume for 1881. The appeal of the Association to the Council against the decision of the Executive Committee in regard to the steps to be taken in order to try the correctness of the Dentists' Register, now came before the Council, together with a copy of the joint opinion of Sir John Holker, Mr. Wright, and Mr. Fitzgerald upon the meaning of Section 6, sub-section (*c*) of the Dentists Act. Motion was made to the effect that all the opinions of counsel obtained in regard to the formation of the Dentists' Register should be entered in the General Medical Council's minutes. Mr. Farrer, the solicitor to the Council, said that as a matter of worldly wisdom it was very unwise to publish counsel's opinions. He should certainly advise them not to do so, but it was, of course, a matter that rested entirely with themselves. Considerable discussion followed, but in the end the amendment, duly moved and seconded—"That the opinion of counsel for the guidance of this Council for the registration of dentists be considered confidential, and be not entered on the minutes,"—was carried: and then the Council resolved that they were "not prepared to take steps, as suggested by the Dental Association, to erase names from the Register which have been placed thereon by the Council under legal advice." The Council further resolved, on the last day of the session—"That any, or all, of the qualifications in Schedule (A) of the Medical Act be registrable by registered dentists in the Dentists' Register." The dentists must feel not a little curiosity, mingled with amusement, to see what will be the next change that the Medical Council may in their wisdom see fit to make in the Dentists' Register.

On Monday, April 3, being in this year "the day next after Palm Sunday," the annual meeting of the Royal College of Physicians of London was held, as by statute required, for the purpose of electing the President of the College, when, in a very large meeting, Sir William Jenner was re-elected to the office. The Harveian Oration of the year was delivered on June 24 by Dr. George Johnson, who, admirably well, made use of the opportunity to fully and completely refute the claim made in Italy to rob our Harvey of the distinction of having completed and demonstrated the discovery of the circulation of the blood, and to confer the credit of that discovery upon the Italian physician Cesalpino. The Gulstonian Lectures were given by Dr. William Ewart, who took for his subject "Pulmonary Cavities: their Origin, Growth, and Repair"; the Croonian Lectures, given by Sir Joseph Fayrer, were on "The Climate and Fevers of India"; and Dr. J. Burdon-Sanderson delivered the Lumleian Lectures on "Inflammation." All these lectures were of great interest and excellence, such as to do honour to the lecturers and the College. The "Bradshawe Lecture" of the College, a learned and instructive essay, was delivered, in August, by Dr. Long Fox, of Clifton, on "The Influence of the Sympathetic on Disease." Eight members of the College were elected, and admitted to the honourable distinction of the fellowship. The number is small, and the list of the names of the physicians so honoured this year presents some remarkable features; it does not include the name of a single general physician practising in London, though it contains the names of two London obstetric physicians, one of whom, Dr. Champneys, is the only graduate of the Old English Universities in the list; the other, Dr. Matthews Duncan, honours the fellowship; then there are four provincial physicians on the list, and two physicians practising abroad—Dr. J. A. Grant, of Ottawa, and Dr. Henry Blanc, of Bombay. The scholarship founded as a memorial of the late Dr. C. Murchison was awarded for the first time. The examiners for it reported that fifteen candidates presented themselves, all of whom proved themselves good men. The successful candidate was Mr. Charles F. Coxwell, M.B., of St. Thomas's Hospital; and Mr. Sidney H. C. Martin, of University Hospital, was "especially commended." A revised and complete edition of the By-laws and Regulations of the College was issued, not before it was needed. In June the President drew the attention of the College to some advertisements of medical works that had appeared in newspapers, and reminded the College that in June, 1873, they had passed the resolution "That the practice of medical authors frequently advertising their own works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the higher interests of the profession." The President expressed his strong disapproval of the practice condemned in that resolution, and also of the custom, "now too prevalent," of giving certificates commendatory of preparations either medicinal or alimentary: and the Senior Censor gave notice that he should move, at the next meeting of the College, "That the system of extensively advertising medical works in non-medical journals, and the custom of giving laudatory certificates of medicinal and other preparations, whether for publication or not, is misleading to the public, derogatory to the dignity of the profession, and contrary to the traditions and resolutions of the Royal College of Physicians." The resolution was accordingly duly proposed at a meeting of the College at the end of July, gave rise to considerable discussion, and was carried, with the very important omission of the words "in non-medical journals"; the words "or of medical or surgical appliances" were also inserted after the words "and other preparations." The first part of the resolution as passed appears to be much weaker than was the resolution of 1873; and certainly much difference of opinion may be expected as to the interpretation of the words '*extensively* advertising." At a meeting held on October 26, the College decided to erect a marble sarcophagus to contain the leaden shell in which are enclosed the remains of Harvey: the sarcophagus to be placed in the Harvey Chapel of the Church of Hemel Hempstead, Essex. And the College resolved, on the motion of Dr. Acland—"That the President be requested to name a committee to consider and report to the College, as early as possible, what combination, if any, the College can best enter into for examination purposes, so as to secure for England, without further delay, one complete pass examination board, which shall be satisfactory to the profession, the Medical Council, and the Government." A committee, consisting of the President, Sir Risdon Bennett, Sir William Gull, and Drs. Acland, Pitman, Sieveking, and Orl, was appointed to carry out the resolution; and they invited the Council of the Royal College of Surgeons to confer with them on the possibility of a combination of the two Colleges for the establishment of a medical and surgical pass examination. The Council of the College of Surgeons, on the 14th inst., accepted the invitation, and appointed the President and Vice-Presidents of the College, with Sir James Paget and Messrs. Erichsen, Savory, and Holmes, to act as their delegates in the matter.

The Council of the Royal College of Surgeons of England, at their quarterly meeting held on January 12, approved and adopted a report of their Committee on the necessary arrangements for the institution of additional examinations for the diplomas of Member and Fellow of the College. The Committee had considered the curricula of professional education for those diplomas in comparison with the curricula of other institutions, and recommended that no alteration should be made in them. In April the Council passed the following new regulation affecting candidates for the diploma of Member, viz.:—"Candidates commencing their professional education on or after October 1, 1882, will not be admitted to the second

or pass-examination until after the expiration of two years from the date of their passing the primary or anatomical and physiological examination." Lest the regulation should prove to press hardly on any good and deserving student, provision was made for exceptions of many kinds—as illness, the possession of a diploma, and the having completed the whole curriculum before passing the primary examination, and the like—and finally, power was given to the Court of Examiners to make exemptions in favour of "unforeseen circumstances." In May the Council arrived at the conclusion that it is desirable to institute an examination in elementary anatomy and physiology, to be passed by students after the end of the first year of professional study; but inasmuch as such an examination could not be conducted by the College without burdening the student with an additional examination fee, the Council resolved that the desirable examination shall be instituted at the several medical schools; and that no student commencing his professional education after October 1 of the present year shall be admitted to the primary examination without producing a certificate from his teachers of his having satisfactorily passed the new examination. The period at which the examination shall be held is to be determined by the teachers at the several medical schools, but an interval of not less than six months must elapse between the date at which candidates pass the examination and the time of their presenting themselves for the primary examination at the College; and it is left to the teachers to determine the nature and extent of the examination. The Council took into consideration the question, whether or not it is desirable that all candidates rejected in the pass examination for the diploma of Member should be placed in the same category as regards the time required to elapse before they can present themselves for re-examination; and decided that it is not desirable to alter the regulations in respect to the power vested in the Court of Examiners for shortening the period of reference; but enacted an additional standing rule, giving to the Court, in cases where extreme ignorance is exhibited, the power of lengthening the period from six to nine or twelve months, as the Court shall determine. "Coming events cast their shadows before"; the Council, on the recommendation of the Nomination Committee, resolved—"That in future all candidates for the primary or anatomical and physiological examination, whether for the membership or fellowship of the College, be required to attend only one winter course of lectures on anatomy, instead of two courses of such lectures"; but this resolution was not confirmed. The question was deferred for a further report on it, and eventually left over for reconsideration, as any alteration this year would interfere with arrangements already made in the medical schools. At the annual election of Fellows into the Council of the College, three vacancies, caused by the retirement, in the prescribed order, of Messrs. John Marshall, Alfred Baker, and Henry Power, had to be filled up. Those gentlemen all stood for re-election; and Messrs. George Lawson, John Croft, and Nottidge Charles Macnamara also presented themselves as candidates. The result was that Mr. Marshall and Mr. Power were re-elected, and Mr. John Croft, of St. Thomas's Hospital, was elected instead of Mr. Baker, of the Birmingham Hospital. Mr. Spencer Wells was elected President of the College, in place of Sir Erasmus Wilson; and Mr. John Marshall and Mr. John Cooper Forster, Vice-Presidents. Mr. Power was appointed Arris and Gale Lecturer on Physiology and Anatomy. The Jacksonian Prize of the College was given to Dr. W. Alexander, F.R.C.S., for his essay "On the Pathology and Surgical Treatment of Diseases of the Hip-joint." Mr. F. S. Eve, the Erasmus Wilson Lecturer, delivered three lectures at the College "On Cystic Tumours of the Jaws"; and the Arris and Gale Lectures were delivered by Mr. Gerald F. Yeo on "The Relation of Experimental Physiology to Practical Medicine." The first "Bradshawe Lecture" of the College was given on the 13th inst., by Sir James Paget, on "Some Rare and New Diseases"—a lecture that will of itself justify for all time the foundation of the Bradshawe Lectureship. We must note one more event in the history of the College during the past year. Mr. Thomas M. Stone, having completed a half-century of untiring and faithful service to the College, first as Assistant-Librarian for twenty years, and since as Clerk, claimed, on the score of age and declining health, to be allowed to retire instead of being again elected to office. The plea of advancing age and declining health was not supported by any evidence of lessened zeal or efficiency on Mr. Stone's part, but the length and excellence of his services to the College, and the fact that he had much more than earned the right to rest, could not in any degree be gainsaid, and consequently the Council felt they could not but comply with his wish. Mr. Stone's name is, therefore, no longer on the list of the College officers, and his efficient, genial, and cheery assistance is no longer at the service of all who have any inquiries to make or business to transact at the College. It is satisfactory to add that, in recognition of "his long and faithful services," the Council have granted him a pension of £300 a year. It has been mentioned elsewhere that the Council lately accepted an invitation from a special committee of the Royal College of Physicians to meet them in conference on the possibility of the two Colleges forming a conjoint pass-examination board. It will be remembered that a conference for the same object was last year proposed by the College of Surgeons, but declined by the sister College, on the ground that their hands were then still tied by the—what shall we say? dormant?—conjoint scheme.

We have not space here to do more than indicate the character of the work that has been done during the year 1882 by workers in physiology. For the same reason we are compelled to pass over in silence the work of some observers in fields which, though of high scientific interest, are, however, as yet of minor practical importance to the physician. We have preferred to limit ourselves, therefore, to those recently obtained facts and observations that appeal to our larger class of readers by their bearing upon the medicine of the day. If some observers find themselves overlooked, they will understand that it is from no disrespect to them or their labours, but only from pressure of space.

In a paper by Renant (*Science*, ii. 1881), it is stated that the blood of all vertebrates, from Cyclostomata to Saurians, contains two kinds of white corpuscle—(1) a white disc containing hyaline protoplasm, and throwing out pseudopodia; (2) a disc whose nucleus is surrounded by brilliant granules, some of a fatty nature. In mammals, generally, three kinds of white corpuscle are distinguishable—(1) an ordinary round disc without any pseudopodia; (2) a corpuscle charged with proteid granules; (3) a disc charged with fat granules. Bizzozeri (*Archiv. Ital. de Biolog.*, i. 1882), examining the small vessels of a rabbit's mesentery, found what he considers to be a new kind of corpuscle. It is translucent and colourless, oval, and one-third the size of the red discs. In freshly drawn blood these are aggregated round the white discs, and speedily become granular, and this observer suggests that they are the corpuscles from which the fibrin filaments originate in coagulation, a function which has been hitherto associated with the white discs. The relation of this new corpuscle to Dr. Norris's "third corpuscle" has given rise to a lengthy correspondence, which it is impossible to refer to here. Writing on this subject, Woolridge (*Proceedings of the Royal Society*) controverts the idea hitherto accepted that fibrin ferment and paraglobulin arise

from the death of the white discs (fibrinogen existing in the plasma). He states that blood from a peptonised dog coagulates only on addition of lymph-cells, which must be living. Dead cells suspended in salt and injected into animals give rise to no coagula post-mortem.

It has been a vexed question whether blood enters the coronary arteries during diastole only, as Brücke suggested—and on this assumption founded the very pretty theory of the "self-regulating mechanism of the heart" (see Foster's "Physiology"),—or whether it enters during ventricular systole also. According to Brücke, the aortic valves, being pressed back against the orifices of the coronary arteries, prevent any flow into them during systole. This view, much disputed, has now received its death-blow by recent ingenious experiments of Newell, Martin, and Sedgwick (*Journal of Physiology*, 1882), who find that whether the heart beat slow or fast, whether arterial pressure be high or low, every feature of the carotid pulse is simultaneously given in the coronary arteries, and it is always a duplicate of the carotid. Thus the valves are not completely pressed back against the aortic walls during systole (a fact which Ceradini, by another method, sought to substantiate long ago). They differ from Brücke as to any interference with the circulation in the coronary arteries by the semilunar valves, but think he may be so far right in his assumption that blood flowing into the coronary arteries during diastole may aid in distension of the flaccid heart; that they are ever empty during systole they deny; and the increase of pressure at each single beat is so little, compared with the mean pressure in these arteries, that nothing would be gained by any closure of the arteries in order to avoid it.

Heidenhain's experiments, as on the physiology of the vagus in frogs and toads, show that stimulation of the vagus is able to cause diminution in force of contraction both of auricles and ventricles down to complete standstill, without any corresponding alteration of rhythm; and this diminution is followed by an augmentation of the force of the contraction. This increased force of contraction may be the only effect of stimulation, and is not necessarily dependent on any previous diminution or any alteration of the rate of rhythm. The conclusion is, that two sets of fibres exist in the vagus at least—one affecting the force of the muscular contraction; the other set affecting the rate of rhythm,—and thus there might be at one time increase or diminution in force of the contractions, at another acceleration or slowing of rhythm. Those fibres which affect the rate of rhythm act, presumably, through certain motor ganglion cells: those altering contraction, through the muscle-tissue. The action of the vagus further increases and diminishes excitability and tonicity of the muscle-tissue at the same time that it increases and diminishes contraction force. Probably there is some intermediate apparatus between the nerve-fibre and the muscle by which this is effected, and it is not by direct action of the nerve on muscle. Gaskell (*Journal of Physiology*, 1882), making a series of experiments on hearts of tortoises and snakes, concludes that a nervous influence can pass from the vagus in the neck along the fibres of the coronary nerve to the auricular ventricular groove, and thence to the auricles, and that affects only the force of the auricular contraction, quite independently of the rhythm. Further, the effect exerted by the vagus on the rhythm is confined to those fibres communicating with certain nerve-fibres in the sinus or the junction of the sinus with the auricles. The ventricle is supplied with afferent fibres, which can regulate the force of auricular contraction; and thus the amount of blood sent into the ventricle at each contraction of the auricle and fibres passes, probably, from the ventricle to the sinus, which can regulate the rate of the sinus rhythm.

The sequence of ventricular upon auricular beat is not brought about by the mediation of the large nerve-trunks, but a wave of contraction starts at the sinus and passes over the auricles to the junction of auricle and ventricle; there then is a pause before the ventricle contracts—probably some special nerve mechanism is set going, and starts a new wave of ventricular contraction. By making cuts at right angles to the base of the heart it is possible to completely block the wave of contraction from auricle to ventricle, so that only every second contraction wave passes. The injury retards the process of re-establishment of conducting power, which has to take place after each contraction in order that another may follow. This slowness of recovery may be removed by putting saline solutions to the blocking point, or stimulating the vagus, or by stimulating the peripheral end of the coronary nerve, so that nerve-fibres pass into the auriculo-ventricular groove which have a power of repair over distant parts of the auricular muscular tissue. How does the vagus exert this trophic influence over the auricle fibres? There are no nerve cells in the auricle itself, but there are groups of ganglion-cells in the auriculo-ventricular groove belonging to the coronary nerve. The vagus thus produces its effect by acting upon certain nerve-cells which are able to modify the nature of the auricular muscle contraction, but not to originate that contraction.

In conclusion, he states that the heart has two kinds of nerve centres—(1) motor, (2) trophic. The most excitable motor cells are in the sinus, and at the junction of the sinus and auricles; the least in the basal wall of the auricle, and at the junction of the auricle and ventricle. Trophic cells exist in auricular muscle, along the course of the nerve-fibres from the sinus to the ventricle. The vagus acts on both kinds, altering the rate of motor discharge (and therefore the rhythm), and causing certain modifications in trophic discharges, affecting force of contraction, power of conduction, tonicity, etc. In a previous work, Gaskell has put forward the view that the vagus is essentially the trophic nerve of the heart.

Sewall and Donaldson (*Journal of Physiology*, 1882), in a recent paper, conclude that the inhibitory action of the vagus is diminished by increase of intracardiac pressure (within very small limits). The mechanism in the heart by which pressure exerts this influence on the vagus lies largely, if not wholly, in the sinus venosus. Since the normal motor stimulus is transmitted from sinus to auricle, thence to ventricle, Sewall and Donaldson conclude that the inhibitory influence of the vagus is exerted the same way, influencing the ventricle by damping in the sinus and auricle the excito-motor discharge arising there. The effect of increased intracardiac pressure on the vagus is to cause such an increase in intensity of the excito-motor discharge as to overcome the retarding influence of the stimulated vagus.

Do bacteria exist in living healthy tissues? Tiegel, Burdon-Sanderson, Béchamp, Neuelli, and Giacosa have concluded that they or their germs *do* so exist. Mott and Horsley (*Journal of Physiology*, 1882), as the result of sixty-four experiments, conclude also that they do exist; that there are two kinds of coccus (Billroth's micro- and mega-coccus), and all sizes of rods in active motion. Occasionally the rapidity of development of the organism increases with rise of temperature.

Pasteur has decided that there is not proof of the existence of bacteria in healthy blood. Watson Cheyne and Chiene and Ewart are the chief upholders of the view that they do not exist in healthy tissues. Von Baber (*Med. Cent.*, ii. 1882) concludes also that none exist either in healthy blood or healthy tissues.

By injecting papazotin into blood, a rapid development o

bacteria takes place. Rossbach suggests that the presence of a small quantity of an organised and purely chemical substance is sufficient to produce conditions in the body which induce rapid multiplication of microphytes already existing there in insignificant quantities.

Fermentation of sugar may be retarded, according to Marcker (*Bied. Cent.*, 1881, 360), by the presence of ·1 per cent. butyric, ·5 per cent. acetic, ·2 formic, ·1 proprionic, and even a trace of caproic acids. Lactic acid up to ·5 per cent. is beneficial, and over 3·5 hurtful. Ammonia is said to be present in human saliva in amount varying from thirty to one hundred milligrammes per litre (Hayward, *Chemical News*). Experiments made by Soxhlet (*Bied. Cent.*) on pigs lead to the conclusion that all the fat stored up cannot come from albuminoids alone. Five or six times the quantity of fat is stored up that could come from them, and this must be from the carbohydrates. Soxhlet advises that it is best to use a diet containing but little fat (1 : 11).

The presence of acid up to ·005 per cent. increases the diastatic action of saliva, but beyond this diminishes it in a marked degree. With solutions of a strength of only ·4 per cent. HCl its action is wholly stopped. Its action is hindered by sodium carbonate; but pancreatic juice, which contains ·3 per cent. sodic carbonate, does not impede the action of ptyalin, so that any which has survived the gastric digestion may become again active. The gastric juice, however, in part destroys ptyalin (Chittenden and Griswold, *Journal of Physiology*, 1882).

Langley (*Journal of Physiology*, 1882) concludes that the amylolytic ferment of saliva is destroyed by the HCl of the gastric juice. The proteolytin and rennet ferments of gastric juice are destroyed by the alkaline salts of the pancreatic juice and intestinal juice, and by trypsin. The amylolytic ferment of pancreatic juice is destroyed in the large intestine by the acids there. The starch is turned into sugar in the intestine by the saliva (ptyalin); but ptyalin can still act as starch in the stomach, since the stomach is free from acid till about an hour after taking food, when it is poured out. "Since trypsin is destroyed by both HCl and pepsin, it is extremely unlikely that pancreatic extracts given with food are of more than slight value; for little, if any, trypsin can pass into the duodenum then to carry on digestion of proteids." It is true that a slight digestive action may go on in the stomach during the first hour or so after a meal, when the percentage of acid is small; but even then the action is very slow—very much slower than would be the case if a pepsine extract were given. Further, it cannot be much more advantageous to give zymogen than trypsin, since, supposing for a moment that the zymogen is not split up in the stomach into trypsin, how can it be split up in the small intestine, where the alkaline solution tends to keep it intact?" The amylolytic ferment of pancreatic juice is destroyed by acids and by gastric juice; and the fat-splitting ferment is destroyed by acids, of which organic acids are much less effectual than mineral.

Langley (*Jour. Physiology*, 1882), continuing his microscopic researches on gastric glands and the relation of pepsin to the granules of the chief cells, concludes—1. That the gastric glands during life contain no ferment, but much zymogen, or substance capable of giving rise to ferment; 2. That the greater part of the zymogen is seen in the chief cells deposited as granules; 3. That during digestion these granules are used up, so as to give rise to an outer non-granular and an inner granular zone in the chief cells.

Pepsin exists in the gastric glands partly free, partly combined, *i.e.*, (1) pepsin, (2) pepsinogen. Fresh gastric glands contain little pepsin, but a good deal of pepsinogen.

The gastric glands also contain rennet zymogen, but not rennet ferment, and much more can be obtained from the gastric glands proper than from the pyloric. It diminishes during digestion like pepsinogen, and the chief cells form it as well as pepsin.

The cells of the pyloric end form a comparatively small amount of pepsin. The zymogen is stored up in the cells in intermediate stages, the granules becoming more and more isolated.

Turning to the spleen, we come across some interesting and remarkable researches of Roy on the physiology of this gland. He concludes that the *spleen has a rhythmic systole and diastole of its own, making sixty contractions in an hour*. Each systole is subject to variations, depending on (1) the gradual diminution in force of successive contractions, (2) the rapidity of the entrance of blood through the vasa serosa. *The whole organ responds very imperfectly to blood-pressure changes, and is really cut off from the general arterial system*, for after clamping the aorta the volume of the spleen falls slowly—not rapidly, as is the case with the kidney. Again, variations in calibre of the splenic arteries bear no fixed relation to the splenic contractions; and, further, the volume of the spleen is subject to slow variations, which would not be the case if there were any constant ratio between the amount of blood entering and the amount sent out at each systole. *The slow changes in the volume of the spleen may be caused by variations in the chemical condition of its blood*, for injection of salt solution into its veins leads to a contraction. *The quantity of blood within it is no clue to the activity of its circulation*, and the absolute amount of blood sent out at each systole varies much.

Further, the *spleen is acted upon by the same rhythmic vaso-motor mechanism as other organs*, but corresponds much less closely than the kidney; but these contractions are to be distinguished from those which are proper to the spleen and are independent of the blood-pressure. Stimulation of the central end of a cut sensory nerve or of the medulla oblongata causes a rapid contraction of the spleen. Stimulation of peripheral ends of splanchnics and vagi also causes a rapid contraction of the spleen, but after section of these four nerves, stimulation of a sensory nerve still causes a contraction of the organ, indicating that various impulses may reach the spleen by some other channel than by these nerves. The section of all these nerves so little influences the rhythmic contraction and expansion of the spleen that it is probable it has some local mechanism regulating and maintaining these changes in volume. (Roy, *Journal of Physiology*, 1882.)

Seegen and Kratschamer (*Pflüger's Archiv*, 24) conclude from their recent experiments that the sugar of the system has some other origin than the glycogen of the liver, since more is formed than the liver glycogen could possibly account for. Boehm and Hofmann assert, however, that something other than sugar is reckoned as such. Pavy (*Proc. Roy. Soc.*, 32) thinks that glycogen is transformed into sugar by contact with the blood, only in a very inappreciable extent. He finds in blood itself a substance identical with glycogen, which does not reduce cuprous oxide till after its conversion into glucose by the addition of H_2SO_4. Twenty-nine experiments conducted on the blood of sheep, bullocks, cats, rabbits, and horses, show that in 1000 parts of blood there are ·040 parts of glycogen. Glycogen exists in the spleen, pancreas, kidney, and brain, and in muscle, and in white and yolk of egg. There is also another body existent which, in the case of muscle, reduces cupric oxide, and possesses the characteristic properties of maltose. Pavy is of opinion that glycogen exists in a colloid state, and is adapted for retention in the body instead of passing off like the diffusible glucose. Seegen (*Pflüger's Archiv*), in a more recent paper, concludes that the sugar increase in the live-

post-mortem is not to be accounted for by the transformation of the glycogen present. He has found a body insoluble in alcohol, and lævorotatory, very frequently present in liver extracts. Liver pulp, treated with peptone solution, yields a quantity of sugar equal to ·5 per cent. of the whole weight of the liver. Extracts of the kidneys, lungs, and spleen do not possess this power of converting peptone into sugar.

According to Hoppe-Seyler (*Zeit. f. Phys. Chem.*, 5), no urea is to be found in the liver of a dog, or, at the best, very faint traces, and neither leucin nor tyrosin exist in liver or blood.

Phosphorus-poisoning, which leads to such a large increase of leucin and tyrosin in the excreta, is also stated by Frankel and Rohmann (*ibid.*, 4), from experiments on hens, to largely increase the N eliminated, and also the uric acid. There is, at the same time, an enormous diminution in the number of red corpuscles.

St. Capranica (*Jour. Chem. Soc.*, February, 1882) states that, since hæmatoidin, lutein, and the pigments of the ovary and eggs do not give any reactions with bromic, chloric, or iodic acids, they are not identical with bilirubin. The hydrobilirubin of Maly (urobilin of Jaffé, etc.) is not identical with hæmatoidin. The action of light is alone sufficient to transform bilirubin into biliverdin. The tests for bile pigments with bromine, chlorine, and iodine are much more delicate than Gmelin's test. A 5 per cent. alcoholic solution of bromine detects one-ten-millionth of a grain. Aqueous solutions of chlorie acid or iodic, of strength of 20 per cent., also are used. Three stages of colouration are recognised —1, green; 2, blue; 3, violet—passing through reddish-yellow to final decolouration.

In estimating urea by the sodic hypobromite process, it is best to use a soda solution made by mixing 20 grs. $NaHO$ in 100 cc. H^2O, and with each 20 cc. using 1 cc. Br. By forming the hypobromite in presence of urea, results are got even to 99·02 to 99·91 per cent. of the whole. Knop's method does not yield more than 92 per cent. of the N that should be evolved (Duggan, *Amer. Jour. Chem.*).

When peptone is injected into the blood, dangerous depression is produced. Hofmeister (*Zeit. f. Phys. Chem.*, 5) asserts—contrary to the generally received opinion—that they pass unchanged into the urine in their entirety. He further offers, as an explanation of the fact that after absorption from the alimentary canal they are not to be met with in the circulation, the theory that they combine with colourless blood-corpuscles in the walls of the alimentary canal, and are thus immediately lost. For the detection of peptones in urine he offers the following process:—All the albumen is removed by treating with lead acetate, then treated with one-fifth its volume of acetic acid. Addition of a solution of sodium phospho-tungstate made acid with acetic acid induces a cloudiness or actual precipitation if any peptones be present.

A simple method of exhibiting phenol in urine is advanced by Tommasi (*Jour. Chem. Soc.*, February, 1882). Twenty to twenty-five cubic centimetres of urine are shaken with ether, and the ethereal solution poured on a chip of pine-wood which has been dipped in a solution of HCl, containing a little K^2ClO^3 (which prevents its turning green when exposed to sunlight). After removal from the HCl, and exposure to direct sunlight, in five minutes, if phenol be present, the pine-chip will turn blue. This reaction serves to detect one of phenol in 6000 H^2O.

Free lactic acid only exists in traces in muscles at rest. In combined state it exists in larger quantity in muscles at rest than when tetanised. The watery extent of tetanised muscle is less acid than of resting muscle. This agrees with the statement of Warren (*Pflüger's Archiv*, 24), who finds that the acidity of a tetanised limb is only half that of a resting limb.

The acid of muscle is, as Liebig affirmed it to be, acid potassium phosphate (Askaschewski, *Zeit. f. Phys. Chem.*, 4). The chemical difference between dead and living protoplasm is stated by Loew and Bokomy to lie in the fact that living protoplasm exhibits an aldehyde nature by its power of reducing extremely dilute alkaline silver solutions, which dead protoplasm cannot do. This reaction, however, is urged by Reinke to be due to a volatile substance of aldehyde nature (probably formic aldehyde) very frequently met with in green cells, and which is the first product of assimilation in chlorophyllaceous plants, being formed out of the elements of carbonic aldehyde and water, $CH^2O + O^2 = CH^2O^3$.

Much good work has been done by English physiologists during the present year, and a school of physiology has arisen, which, having Cambridge for its centre, and its illustrious Professor at its head, is making such rapid strides yearly, that already we have ceased to look to our German *confrères* for inspiration.

Of physiologists of note who have passed away during the year 1882, England has sustained the very greatest loss by the melancholy death of Professor Balfour, of Cambridge. His death was an international misfortune. Professor Schwann has also passed away, full of years and honours. Dr. Buchanan, of Glasgow, has also closed a long and useful career. A survey of the work of the last year shows us that while much remains to be done, English scientists have no cause to be ashamed for the progress of their countrymen in matters physiological. Let it spur all workers in this field, which is the very rock on which a scientific system of medicine is built, to fresh exertions.

Although the passing year has not given birth to any new or startling surgical operation, yet a great deal of activity has prevailed, and some decided gains have been added to the long list of advances made in recent years in this department of practical medicine. In few departments have greater changes or greater advances been made than in so-called abdominal surgery. We use this word in its widest sense, for it now includes operations, not on the ovaries only, but on the liver, the spleen, the kidneys, the uterus, the bladder, and on the intestinal tract from the stomach to the sigmoid flexure; and numerous examples of successful operation on these organs—in many of them frequently repeated—have been recorded since we penned our last "Annus Medicus."

The gradually improving statistics after ovariotomy, by Wells, Keith, Thornton, and other operators, are beginning to be regarded with something like familiarity, in presence of the successes which attend the much more extensive operation of removing the uterus and its appendages *en masse*. Mr. Wells has recently added to his reputation as a successful operator by recording in the current volume of the *Medico-Chirurgical Transactions* a successful "Case of Excision of the Gravid Uterus, with Epithelioma of the Cervix." It is true that the late Dr. Blundell successfully accomplished the extirpation of the entire uterus in this country more than fifty years ago; but the operation was not accepted as a legitimate one until quite recently; and that it did so, is in no small degree due to Spencer Wells's teaching of what the peritoneal cavity will endure when properly treated. We are not aware that any substantial gain has been made lately in the average percentage of success after ovariotomy—it is now about 90 per cent. in the hands of the best operators. The treatment of certain diseases of the kidney has latterly assumed a totally new aspect, and some very important papers have been contributed to our literature of this subject. In the last volume

of the *Clinical Society's Transactions* there are no fewer than six papers bearing on renal surgery, each one recording at least one case, and giving valuable information on the diagnosis, symptoms, and indications for operating, which will prove of the greatest service to future workers in this department. In Mr. Beck's case, that of a young man aged nineteen years, the symptoms appeared to be quite conclusive of the presence of stone; but on cutting down on to the kidney, nothing abnormal could be either felt or seen. The fulness in the loin, which had been relied upon as evidence of enlarged kidney, proved to be due to thickening of the free edge of the external oblique muscle—apparently hypertrophy, "as a consequence of persistent contraction to protect the tender kidney beneath." The chief point of interest in this operation, then, was the exploration of the kidney by means of a fine needle, as advocated by Morris and by Baker. In this particular instance a long ordinary darning-needle was used, and it was run in in several places until the stone was felt. This aid to diagnosis, in cases where no outward signs reveal the presence of a stone, is of great value: it has been used in many other cases since, without giving rise, even in the absence of stone, to any untoward consequences. Mr. Butlin's case was interesting from one of its main symptoms—that of extreme pain in the testis of the side corresponding to the renal lesion. So great and so localised for a time was this symptom, that attention was not at first directed to the kidney.

Dr. Whipham and Mr. Haward have recorded two cases of nephrotomy. The first, a successful case, showing that a stone may be safely removed, and with good hope of recovery, even although extensive dilatation of the pelvis have taken place; the second, an unsuccessful case, showing the results which ensue when calculous disease of this organ is allowed to go on unchecked. Dr. Goodhart and Mr. Bird's case brought out some other points—viz., the great difficulty of removing a diseased kidney (through the loin) in consequence of the extensive adhesions which it forms with neighbouring parts, as well as in consequence of thickening and shortening of its own ureter. This latter difficulty may, of course, always be averted by separating and dividing the ureter early on in the operation. The disease in this instance was scrofulous pyelitis; and, as is often the case, it proved to be local, except a very slight affection of the bladder. Dr. Barlow and Mr. Godlee's case was one of calculous pyelitis. The operation was done through the abdomen; and the actual condition of the parts demonstrated how such a case could not have been effectually dealt with through the loin. The cause of death was suppression of urine; but this was in no way due to the operation, and might just as well have followed the lumbar incision, as actually occurred in the next and last of this interesting series of cases. Mr. Marsh cut down through the loin in a case of pyelitis, which was becoming gradually worse. He found it embedded in dense areolar tissue, the result of long-standing chronic inflammation. After in part enucleating the gland from its capsule, he was not able to remove it on account of its several adhesions, and had to tie with a stout ligature and cut away as much as possible with curved scissors. Mr. Marsh came to the conclusion that the lumbar incision "does not provide sufficient space for the removal of a kidney of large size." His case, too, died of suppression of urine. Where the disease comes early under observation, provided there be not very extensive complication, nephrolithotomy through the loin is indicated, and is generally a safe and successful operation; while in cases of chronic pyelitis, excision through the abdominal wall—and, as in recent cases have shown, along the outer edge of the rectus muscle—is the preferable operation, because it gives a larger field for operating, and the additional advantage that the diseased parts may be seen as well as felt. Mr. Adams, in a paper quite recently communicated to the Clinical Society on nephrectomy for medullary carcinoma, also thought the abdominal incision the more preferable when the growth was large. A similar activity in this field of work has been manifested abroad. Thus in Germany a case of nephro-lithotomy for suppression of urine is recorded by Dr. Thelen, of Cologne. A woman, aged twenty-seven years, had had urinary troubles since the age of ten. Treatment had proved quite useless. Then an abscess had formed in her left flank, from which a large quantity of pus had been discharged; it then healed up, and her urinary troubles ceased. A few months later, one morning her temperature rose, rigors came on, with pain in the right loin, shooting down towards the bladder, with suppression of urine. Symptoms of uræmia, with aggravation of the constitutional condition, suggested plugging of the right ureter with a stone, and retention of urine in consequence. Nephro-lithotomy was decided upon, and practised with the most satisfactory results. A case of successful removal of a sarcomatous kidney from a child, aged six, has been reported to the Royal Academy of Medicine of Brussels. The incision extended from the xiphoid cartilage to three fingers' breadth below the navel. The cure was complete in thirty-six days; and up to four months later there had been no recurrence. Finally must be mentioned a case related in the *Berliner Klinische Wochenschrift*, in which Dr. Starck, six days after total extirpation of the cancerous uterus through the vagina, removed a diseased kidney through the loin. The patient survived both operations, and was discharged on the thirtieth day after operation; and three months later, when seen, was free from recurrence.

Gastrostomy has been practised again within the past few months. However, owing probably to the nature of the circumstances under which it is generally called for, it does not make the same headway as some other surgical proceedings. In the first place, gastrostomy is purely a palliative proceeding; if done on account of cancer in the œsophagus, the original disease still remains to exhaust, and finally kill, the patient. On the other hand, it is apparently a fatal operation in itself. Of seven cases recorded in the new volume of the *Clinical Society's Transactions*, only one case can be said to have much benefited, and this man only lived five months. In three cases death occurred within a few hours. In another case the operation could not be completed; while in two others life was barely prolonged five or six days, and little, if any, relief was brought the patient. Our foreign *confrères*, and amongst those notably Billroth and his pupils, have proposed to remove the diseased part. They have already recorded several good results. Billroth's first successful case of excision of a cancerous pylorus has inspired other surgeons to emulate his success, so much so that they have outdone their teacher. Of seven cases, three have recovered. Of the deaths, three occurred from inanition and collapse. A later case is recorded by Koch, in *Langenbeck's Archiv*, vol. xxvii., which was operated on by Czerny: the young man made a good recovery. Rydygier (*Berliner Klinische Wochenschrift*) goes further again, and records the excision of a simple "ulcus ventriculi" in the neighbourhood of the pylorus. The woman had suffered for two years from gastric symptoms, which were gradually getting worse. She recovered from the operation, and was discharged from the hospital in six weeks. In the face of the success which is attending this kind of operation as the mechanical details come to be more perfected, it would be unwise to express any opinion on the desirability or otherwise in operating for such a disease as simple ulcer of the stomach. On the other hand, the symptoms to which

an ulcer gives rise are often most distressing, while fatal hæmorrhage is a not uncommon consequence of leaving them to themselves. It is not so long ago that we first heard of Nussbaum's proposal to remove the lower end of the rectum, with feelings little short of incredulity; while to-day the operation is considered legitimate, and is certainly often successful. Quite recently a long discussion occurred at the Royal Medical and Chirurgical Society on the advisability of resecting portions of intestine in cases of irreducible intussusception, or of volvulus, or of cancer of the gut; and the feeling of the majority of speakers was plainly in favour of this proceeding. The other alternatives would be to leave the patient alone to die unrelieved, or to make an artificial anus and leave the original disease to progress. Neither of these plans seemed acceptable to the surgeons who spoke. Of course the removal of a portion of intestine at this end of the intestinal canal is quite different from the proposal to remove a part of the stomach, though in both cases the abdominal cavity is opened, and in both cases alike the disease for which it is done is generally cancer.

The liver has frequently been laid bare and operated on for abscesses in its substance; and the gall-bladder has also been opened for the removal of gall-stones. At the last Congress of German Surgeons, cases of this kind were reported. Dr. Landau, of Berlin, reported two cases of hydatid disease of the liver: he cut through the abdominal wall on to the tumour, and partially emptied the sac with an aspirator; then, the sac being no longer distended, he carefully sewed it to the edges of the abdominal peritoneum, and so completely shut off the peritoneal cavity. Both these cases were children, one aged twelve and the other six years, and both were successful. Antiseptic precautions were used. Dr. Rosenbach, of Göttingen, records a case of a child, seven years old, who had a tumour as large as a fist in the region of the gall-bladder, which appeared to fluctuate. An incision was made through the abdominal walls over the swelling, and the distended gall-bladder was exposed; it was sutured to the abdominal walls; and, after ten days, cut into and emptied of a quantity of slimy light-coloured fluid and about forty gall-stones. The patient made a perfect recovery.

Mr. Haward removed a hypertrophied spleen (*Clinical Society's Transactions*, 1882) from a woman aged forty-nine. The case, though not successful, at least demonstrated the feasibility of the operation. Unfortunately there was leucocythæmia as a concomitant condition. In former recorded cases, of which there are some twenty-nine in all, leucocythæmia existed in sixteen cases, and of these none recovered; while in thirteen others, presenting various morbid conditions of the organ, but in which no leucocythæmia was present, eight are said to have recovered.

As regards the surgery of the bladder, advances have also been made. The last volume of the *Medico-Chirurgical Transactions* contains three papers bearing on the subject of the removal of tumours, by Mr. Harrison, Mr. B. Hill, and by Sir H. Thompson. The ordinary lithotomy incision was made by Mr. Harrison, and a stone, as well as a tumour of the prostate, were removed. Mr. Hill's case was a female. He dilated the urethra, passed in an écraseur, seized the growth—a fibrous polypus,—and removed it. Sir H. Thompson operated through a perineal section of the urethra. All the cases recovered.

The radical cure of hernia is again attracting attention; and surgeons are endeavouring, when operating on strangulated herniæ, to effect a radical cure, as well as giving attention to the circumstances in which it may be desirable to operate for the latter purpose only, before symptoms of strangulation have left no option. The various plans proposed are almost too numerous to specialise on this occasion; they, however, attain the same object whether the sac be obliterated without opening, or after opening be cut off. Schwalbe (Magdeburg) reported to the German Congress this year thirty-four cases which he had cured by means of injections of alcohol. Our own experience is not in favour of the injection method; it is a painful method; it is very slow; it is very uncertain. The more radical methods of removing or closing the sac seems to us as much better worth the attention of surgeons than this method of injection.

Dr. Block (*ibid.*) has made a number of remarkable experiments on rabbits, dogs, pigs, sheep, and cows—fifty to sixty in number,—to test their viability after removal of portions of the lungs. Animals were shown which had remained healthy for six months and upwards after this apparently unpromising operation. He referred to the work of others in this same direction, as well as to recorded cases of human beings who had lived for many years with only one available lung. He deduced from this the practicability of extirpating the human lung in cases of dangerous hæmorrhage, tumours, foreign bodies, gangrene, and abscesses. But his "chief indication" was "consumption" in its earlier stages, "when the disease, which is not always tubercular (and which before all things must not be confounded with the miliary tuberculosis as produced in animals), is still confined to one lobe on one or both sides. Consumption is a local process, which for a long time past has been successfully operated on in the bones, joints, testes, kidneys, ovaries, and other glands." Cases of tapping abscesses in the lungs have been recorded during the past year. We must be content to record the fact, and wait patiently for results. Disease of the pleural cavity continues to attract considerable attention, and while improved methods of treatment are gradually introduced, it seems as if, owing to increased skill in the recognition of these diseases, and the earlier adoption of surgical measures, the cases yearly become fewer and fewer in which extensive interference with the chest-wall is found necessary. The method of treating empyema by free incision has proved so effectual that it has been extended to the pericardium. We recorded, some time back a case of the kind, in which a purulent pericarditis had been successfully treated by free incision; and we know of one other case, in our own country, which, however, has not yet been published.

Two successful cases of simultaneous ligature of the subclavian and carotid arteries for innominate aneurism have been recorded in the past year—one by Mr. Langley Browne (*Med.-Chir. Trans.*, 1882), the other by Dr. Cameron (*Clin. Soc. Trans.*, 1882). The after-course of the operations was aseptic in both instances, and Mr. Lister's latest form of antiseptic catgut ligature was used.

During the past year, in the domain of surgery as it concerns us, great activity has prevailed in the matter of new antiseptics and their introduction into practice. It has long been known that the use of carbolic acid, whether in the form of spray, lotion, or gauze dressing, was not quite free from sundry disadvantages, while in a few cases its use has produced really poisonous symptoms. Iodoform has come in for a large share of attention, and, notwithstanding a form of "intoxication" which its use gives rise to in not a few cases, its antiseptic properties cannot be doubted. Professor von Langenbeck communicated an interesting paper to the Congress of German Surgeons (*Bericht d. Deutsche Gesell. für Chirurgie*, ix.: Kongress) on the treatment of wounds with iodoform. He thought the drug so valuable and its virtues so great as to overbalance the occasional disadvantages which its use entailed, and he advised greater caution. A great many other observers have written on the subject of iodoform; and the outcome of it all seems to be that it has been recklessly employed, while it is in reality an agent the use of

which calls for more than usual caution. The iodides given internally are known to influence some persons very disagreeably, and in a small percentage of individuals iodide of potassium acts like a poison. In both drugs the active principle is iodine; and the same care which is necessary in prescribing iodine must be used in employing iodoform dressings. Naphthaline or naphthol—a white crystalline substance—has been re-introduced, and is now much vaunted as an antiseptic and as a very useful substitute for iodoform. It is quite insoluble in water and in the secretions from wounds. This is considered one of its great advantages; for while it absorbs them, it cannot "cake" or form masses: the fluids pass through it, much as they would through powdered glass. Dr. Fischer (of Strasburg), among other cases, tried it in severe erysipelas after excision of the knee-joint. The wound was completely filled up with naphthaline, and the erysipelatous inflammation at once subsided. We have seen it tried in a few cases, and it seemed to answer very well. Eucalyptus is much used as a disinfectant; the gauze particularly is found very serviceable, especially in cases where the carbolic gauze is found to cause irritation.

Turning to Therapeutics, we find this department of Medicine and Surgery still thoroughly under the influence of the germ theory of disease. Whilst the prevailing pathology continues to find in specific organisms the essential cause of some of the most common and most fatal of diseases, therapeutics must follow in the same direction to support and to apply the doctrine which promises so much. The majority of new drugs, and of new methods of treatment generally, have reference, therefore, to disinfection and antiseptics. The discovery of the bacillus of tuberculosis has especially brought to the front a number of old and of new remedies for phthisis; and the same run after specific cures may be seen in the variety of remedies proposed for diphtheria, small-pox, pertussis, etc. Next to this feature of modern therapeutics there must be recorded, as unquestionably the most novel and striking character of the treatment of the present year, a remarkable extension of the province of Surgery into regions hitherto considered peculiarly belonging to Medicine. We have had to notice during the year, and have mentioned in this record, many instances of operations of the gravest character performed for organic disease of the stomach, intestine, liver, spleen, and even the brain.

During the whole of this time Pharmacology has not fallen behind the sister sciences, though the results obtained in this department are necessarily not so brilliant as the results claimed by the surgeon. A few new drugs have been brought to our notice in the course of the year. Amongst others we have given some account in our pages of koroniko, the tincture of *Veronica parviflora*, which, in the hands of Dr. Jardine, of China, has been of the greatest service in the treatment of chronic dysentery (July 1, page 26). *Euphorbia pilifera* is a new Australian remedy for asthma and bronchial catarrh (August 19, page 225). Naphtol, which we mentioned last year as a new antiseptic, has been tried freely in skin disease by Kaposi, of Vienna; and with the result which might have been anticipated—that it is valuable in parasitic affections, and less valuable in inflammatory diseases (October 21, page 505). Ozone and ozonised air have been introduced to our notice by Professor Binz, but without much to be said in their favour, beyond some action in the way of relieving dyspnœa (April 1, page 338, and November 4, page 561). The value of ozone as a hypnotic does not promise to be so considerable as that of acetal, of which we are likely to hear more shortly (November 11, page 585). Eucalyptus oil would appear to be an excellent stimulant and antiseptic, as well as possibly an anæsthetic, like other products of its kind, and the pains and discharge connected with chronic uterine disease have been successfully treated with it (December 2, page 633). Fluoride of ammonium has been used in the form of a very weak injection into the spleen in cases of enlargement (May 6, page 486). Klikowitsch proposes nitrous oxide gas as an anæsthetic during labour, dwelling upon its safety, certainty, evanescent effect, and other valuable properties (January 7, page 13). Nitrite of amyl would appear to be not sufficiently appreciated, or, if appreciated, shunned as a powerful and dangerous remedy. As a speedy and successful means of treating threatening death in chloroform-poisoning, drowning, the cold stage of ague, and angina pectoris, it ought to be given unhesitatingly and without timidity (February 25, page 209). Kava-kava, from Fiji, has been introduced in the treatment of prostatic, urethral, and vesical inflammations. The preserved fruit of the *Emblica officinalis* has been recommended as a safe and agreeable laxative, especially in children. The *Œausofer*, a Spanish insect, is a new vesicant, said to exceed cantharis in safety, whilst it is equally powerful as a counter-irritant. Nitrite of soda, to which we specially referred last year, has been used by Dr. Law and Dr. Ralfe in the treatment of epilepsy (December 9, page 707). The results, which so far seem encouraging, are still too few to enable a decided conclusion to be drawn from them. Hydrangia, in the form of fluid extract, is a welcome addition to the few substances at our command which can control the pain of renal colic. Curare has been tried with some apparent benefit in epilepsy. The red gum of Australia (*Eucalyptus rostrata*) is recommended as a useful and cheap remedy for some cases of diarrhœa. Chrysophanic acid, to the external use of which we referred two years ago, has been given internally for psoriasis, but not with encouraging results.

Like so many other powerful drugs, iodoform has been tried in every conceivable form of disease until the furor in its favour has already earned the name of *iodoformomania*. As a foreign contemporary suggests (October 21, page 502), there can be little doubt that the indiscriminate use of this drug is chiefly due to the prevalence of the germ theory of disease. We have ourselves discussed at some length the most important applications of the drug externally (January 14, page 38). Surgeons have learned by experience that unfortunate results may occasionally follow its indiscriminate employment (January 21, page 71, and June 17, page 652). Nothing could well be more conflicting than the opinions of different oculists with respect to the value of iodoform in eye cases (November 18, page 614).

During the year Dr. Ringer and Dr. Sainsbury have published several papers on elaborate therapeutical investigations of an experimental kind, which they have been carrying out on the heart of the frog. They have described the action of the chlorides, bromides, iodides, and citrates of sodium, ammonium, and potassium. The essential points which these investigations establish are—first, that such drugs affect the cardiac tissue in a twofold way, namely, in respect of the rate of contraction, and of the value of each beat; and, secondly, that the activity of the salts of the three bases differs much relatively, the sodium salts being, as a rule, much the least poisonous, the potassium salts the most powerful, and the salts of ammonium occupying an intermediate place (June 24, page 675). When the results obtained have been confirmed clinically in man, they cannot fail to be of much practical importance.

It cannot even yet be said that the value of the salicyl compounds is thoroughly understood in the treatment of acute rheumatism; but the large number of accurate observations that are being made upon the subject cannot fail to furnish us with data from which a conclusion may shortly

be drawn. We now know, indeed, which of the symptoms of rheumatism can be benefited by salicine or salicylic acid, and which cannot; and we can regulate the administration accordingly (January 28, page 91). Some useful directions for our guidance have come to us from America (March 4, page 234, and July 8, page 55). Meanwhile, physicians are again going in search of fresh remedies for rheumatism; and a remarkably complete observation of the value of iodide of potassium and quinine in the treatment of this disease, carried out by Dr. Greenhow, will be found described at page 650, June 17. Very curiously, the question of the value of extensive and frequent blistering in acute rheumatism has been revived and freely discussed, with the display of the usual amount of variance of opinion. Senator has had recourse to the benzoates for a medicinal means of treating acute rheumatism, and has met with some success in the administration of the soda salt or the pure acid in large doses, especially in cases which had resisted salicylic acid.

Every year we have to record the introduction of some new method of treating diphtheria locally, as a rule very successful at first, but unfortunately failing to sustain its reputation when brought to a strict account. This year chinolin has to be referred to in this connexion, having been found useful in 5 per cent. alcoholic solution by Dr. Seifert (page 24, July 1). Salicin has also been recommended as a topical application, combined with the usual internal treatment. Salicylic acid is not equally successful. With the disinfectant theory fully possessing them, other authorities have seen good results follow the use of thymol internally, combined with quinine and brandy.

Some of the oldest and most familiar of drugs have received, as they deserve, fresh consideration during the last twelve months. Opium and the question of opium-eating have been especially before the profession and the public, the most opposite views being expressed as to the danger attending the habitual use of this narcotic. Surgeon-General Francis has contributed to our columns a valuable paper on this subject (January 28, page 87, and February 4, page 116).

A new remedy for pruritus is always welcome, and Dr. Steele, of Denver, finds that sulphate of quinia answers this purpose when locally applied in lard (July 1, page 26). Arsenical injections are reported to have proved serviceable in goître (October 21, page 502). Dr. Da Costa still clings to the use of ergot in diabetes insipidus (March 18, page 296). An urethral injection of bromide of potassium and laudanum has proved valuable in the treatment of chordee (May 6, page 484). Chlorate of potash is recommended as a useful and safe application to epitheliomatous ulcers (May 13, page 496). Hyoscyamine has been found very valuable in mania, as a sedative without being hypnotic; but this, if we mistake not, is by no means a novel observation. Dr. Delattre has found by experience that the administration of the phosphates during pregnancy, as rationally indicated by a careful study of the excretion of these salts in the gravid state, is attended by the best results, both to the mother and offspring (April 15, page 387). The hypodermic method of administering drugs, familiar as it now is, might probably be more judiciously and elegantly employed amongst us, and the papers of Dr. Seiler (September 23, page 388), Dr. Ainsworth (January 21, page 72), and Dr. Shoemaker (August 5, page 170) on this subject deserve to be recorded. Similarly, the time-honoured use of soapy compounds as absorbents has been revived by Professor Senator, of Berlin, for the relief of serous and synovial exudations (September 30, page 417).

A certain number of new disinfectants and antiseptics have been introduced during the year, even coffee being pressed into the service of the surgeon, and used in the form of powder on the surface of wounds (March 11, page 269). Naphthalin seems to have taken the place of iodoform in the practice of some German surgeons. Boroglyceride has been tried with apparently good results in some of our London hospitals. But, indeed, so many and so various are the substances, natural and artificial, now employed in the treatment of wounds, that we have almost gone the round of the circle, and arrived at the point from which we started—namely, the use of anything or nothing. One would imagine that dirt itself may be an antiseptic when one reads of pipe-clay, sand, mould, and charcoal being used as dressings! Meanwhile, the value of sulphurous acid, once the most popular of disinfectants, has been re-investigated by Wolffhügel (April 29, page 449). It proves to be very destructive of all bacteria and micrococci, but to have no effect on spores.

The "antiseptic" or, more correctly, disinfectant treatment of phthisis and other forms of chronic disease of the lungs and bronchi, has become extremely popular during the last twelve months, and many suggestions have been offered as to the best substance and the best form of inhaler to use.

Diaphoresis by means of the hot bath and pack has given favourable results in cases of puerperal convulsions in the hands of Dr. Breus (July 22, page 106). *Per contra*, the cold bath, the wet sheet, and the sponge bath, as well as other non-medicinal and medicinal agents, continue in favour with many practitioners in the treatment of pyrexia (March 11, page 261).

Vaccination from the calf, of which we have for so many years urged the Government to allow the public to avail themselves, has at last become a regular institution supported and worked by the State, a central animal-vaccine station having been established in London. In this connexion it may be mentioned that Dr. Klein has seriously invalidated M. Pasteur's conclusions with respect to the value and safety of *vaccination charbonneuse* as a preventive of anthrax in animals (and so indirectly in man). Whatever may be the settlement of the difference of opinion which still exists, there appears to be no doubt that certain specimens of the *vaccin charbonneux* which have reached this country from France are highly unsafe.

During the early part of the year we devoted a considerable amount of space to the description of the method of treating snake-poisoning by permanganate of potash (January 28, page 93; February 4, page 125; March 4, page 233; and April 29, page 449). There can be no question that the results obtained by Dr. Vincent Richards in India, experimenting with cobra-poison, are of the most encouraging kind, and that they suggest the trial of the permanganate in the treatment of the bites of rabid animals. One practical point is clear, and this is, that the permanganate, to be of any use, must be thoroughly applied. It must be injected locally, and within a very few minutes of the infliction of the bite; all the adjuvant measures, such as ligature of the limb above the bite, must be carried out; the wound should then be laid open, and rubbed with powdered permanganate.

Amongst non-medicinal remedies electricity continues to hold a foremost place. The value of the battery current and the apparent uselessness of the induced current in the treatment of cardiac failure—for example, in threatening death from chloroform—have been clearly demonstrated by von Ziemssen (October 14, page 478). An analysis of fifty-four cases in which the sciatic nerve was stretched for locomotor ataxy cannot be said to yield a favourable result of this mode of treatment (December 2, page 667), but in sciatica the operation has been more successful (May 27 page 551). Igni-puncture is a novelty, at least in name, and consists of multiple applications of the actual cautery. It is recommended as preferable to scarification in chronic

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eczema of the face (January 28, page 110). Scarification seems to answer well in acne rosacea (May 20, page 539). Scraping, which has proved a valuable method of treatment in lupus, appears to have been employed with advantage even in epithelioma, by Mr. Holmes (June 3, page 594). An attempt has been made—not without success—to supply a physiological explanation of the value of leeching in peripheral inflammations, it having been proved that the first effect of the application is acceleration of the circulation through the inflamed area, and the consequent restoration of healthy nutrition, whilst the blocked vessels are thoroughly cleared (May 13, page 504). A valuable method of treatment, which is so far independent of drugs, has come into extensive use in England, after having been employed with success in America: we mean Weir Mitchell's plan of "making fat and blood" by means of rest, seclusion, massage, and electricity (April 1, page 342). No doubt many cases of hysteria and other chronic ailments have been marvellously benefited by this system. Rapid breathing continues to be found useful in some instances as an anæsthetic, specially in the reduction of dislocations.

We have commented at some length (May 13, page 499) on Mr. Parker's suggestion for aiding thoracocentesis by means of the admission of carbolised air into the pleural cavity. Experience alone can prove whether the proposal, which appears quite rational, is likely to be clinically successful.

Artificial feeding in phthisis, the patient being nourished by large quantities of food, peptones, and oils introduced through the stomach-pump, has been highly praised by Drs. Brochin, Beaumetz, and Debove, of Paris. It is remarkable how well the irritable "stomach" of phthisis will tolerate this method of treatment, which includes, of course, the passage of the œsophagus-tube (January 21, page 72).

The fiftieth annual meeting of the British Medical Association was held on August 8 and the three following days, in Worcester, the city in which the Association was founded, in July, 1832, by the late Sir Charles Hastings, with the co-operation of a small but zealous and devoted band of coadjutors. The fiftieth meeting was presided over by Dr. Strange, the senior Physician to the Worcester Infirmary, who delivered an address on the "Revival and the Survival of Medicine." Besides the presidential address, only two addresses-in-chief were given—the Address in Medicine, by Dr. Wade, Physician to the Birmingham General Hospital; and the Address in Surgery, by Mr. William Stokes, Professor of Surgery in the Royal College of Surgeons in Ireland. Both addresses were, as the occasion deserved, of much more than average merit. Dr. Wade, after a few words of warning to his hearers against a vainglorious belief that we are in all ways wiser and better practitioners than were the men of fifty years ago, picked out some few of the "facts" of medicine as it was when this century was still young, and gave a most admirable, thoughtful, and philosophical address on the use, abuse, and misuse of drugs and other remedies; and on the great changes (amounting sometimes to revolution) of opinion as to systems of treatment. Professor Stokes dwelt shortly on questions of preliminary and professional education, touched on several of the conspicuous gains in surgery that have marked the years since the Association was founded; and then devoted the rest, and by far the largest part, of his address to the consideration of "the three giant strides in the history of surgery that the past half-century has witnessed—the discovery of anæsthetics; osteogenesis, as the means of bringing about the regeneration of bones or joints requiring resection; and the establishment of the practice of antisepticism in the treatment of wounds." He delighted his audience by his power and eloquence as an orator, and proved anew that he is a master in surgery. Excellent addresses, nearly all of which were published in full in our pages, were delivered by the Presidents of Sections—by Dr. Clifford Allbutt in the Section of Medicine; Professor G. M. Humphry in that of Anatomy and Physiology; by Mr. Augustin Prichard in that of Surgery; by Dr. Alfred Carpenter in the Section of Public Medicine; by Mr. Vose Solomon, of Birmingham, in the Section of Ophthalmology; by Mr. Laidlaw Purves, Aural Surgeon to Guy's Hospital, in the Section of Otology; and by Dr. Hughlings-Jackson, as President of the Section of Pathology. The last-named address was especially excellent and noteworthy, even among such a cluster of speeches. Dr. Hughlings-Jackson plunged at once into his subject, and, beginning with the statement, "Pathology is the basis of every rational system of treatment," delivered one of the most original, suggestive, and instructive of all the addresses given during the meeting: it will well repay repeated reading and study. Much good and interesting work was done in the several sections; and in nearly all of them, in addition to the usual papers, formal discussions were held on special subjects selected beforehand. It will be remembered that at the meeting held in 1881 a very warm discussion was raised on the subject of the compulsory notification of infectious diseases. A proposition was made that it should be an instruction to the Parliamentary Bills Committee of the Association to support Mr. George Hastings' Bill for making the registration of infectious diseases compulsory, and imposing the duty of notification directly upon the medical attendant. This was vehemently opposed, and was defeated by a very large majority. This year again the subject was mooted, first in the Section of Public Medicine, where a paper having been read by Dr. Ransome, of Manchester, very strongly advocating compulsory notification, Dr. Carter, of Liverpool, followed with an able paper opposing the proposed scheme, and especially any scheme that would impose compulsory notification on medical men: he contended that such schemes where introduced had not worked well; that the public were not yet educated up to compulsory notification; and that the demands made by its advocates were constantly increasing, though they already insisted upon compulsory notification by medical men, compulsory removal of patients to hospital, and compulsory closing of shops and schools. The discussion was carried from the section to one of the general meetings, when Dr. Littlejohn, of Edinburgh, Mr. Hastings, and several other gentlemen addressed the meeting, in addition to Drs. Ransome and Carter. The last-named gentleman proposed "That a *plébiscite* be issued, asking whether the members of the Association did or did not agree to the principle of compulsory notification." On the motion of Dr. Littlejohn, an amendment, to the effect that "This meeting declines to withdraw from the position which the Association has repeatedly taken in urging Parliament to make the notification of infectious diseases generally compulsory, under such conditions as may appear to be, after due inquiry, best calculated to protect the public health," was formally proposed. A very animated and somewhat confused discussion followed, but it was finally declared that the amendment was carried; whereupon another amendment was moved, viz.:—"That this meeting earnestly desires the compulsory notification of infectious diseases, but wishes to express the opinion that compulsion to notify should be placed upon the householder, in his duty as a citizen, and not upon the doctor." This was carried as an amendment and as a substantive motion by large majorities. The question has largely occupied the attention of the profession in England during the year. Dr. Carter has founded an "Association for Opposing the Compulsory Notification of Infectious Diseases by Medical Men," which has rapidly become a

numerous and powerful society, with branches in many of the large towns; and the matter is now being widely and earnestly discussed in Scotland in connexion with the proposed General Police Bill for Scotland. The Bill will affect all the large towns and the police burghs; and it seems most probable that a clause requiring compulsory notification will form part of it. Further, the subject of notification and isolation of disease was taken into consideration by the Infections Hospitals Commission; and the Commissioners are strongly of opinion that compulsory notification, isolation, and removal if necessary to hospital, are absolutely necessary to prevent the spread of infectious fevers. They do not give any positive opinion as to the person upon whom the compulsory duty of notification should be imposed; they say: "Notification should in all cases whatever be obligatory on one or more of the following persons:—The patient—those in charge of him—the occupier of the house in which he lodges—his medical attendant, or any relieving officer to whom, if a pauper, he may apply for assistance." But they add: "In effect it is only by the medical attendant, if any, that the disease can be intelligently notified, since it is only he who can be presumed to know what it is, and who has no interest in concealing it." They recognise, however, the objections made against imposing the duty upon him, but give no opinion as to their validity. It is indisputable that "compulsory notification of infectious disease," with all it may involve, has become a burning question, and that it must be legislated for by Parliament as an Imperial question, and not any longer be dealt with by cities and boroughs in local Acts.

The various medical societies of the metropolis held active and fruitful sessions, and at not a few of the meetings of some of them the subjects discussed were of more than common interest and importance. Some of these have been noticed elsewhere in this summary of the medical year, but a few matters remain to be briefly alluded to. The debate at the Medical Society of London on the Treatment of Acute Rheumatism by Salicin and the Salicylates, which was commenced in December, 1881, was continued in the present year. A large number of hospital statistics in reference to the subject were brought forward, some of them very valuable and instructive, and many hospital physicians took part in the debate; but very little was contributed to it from the large and most important field of private practice. The debate was undoubtedly a valuable one, but it cannot be said to have settled any one of the questions in dispute with regard to the use and value of the salicyl compounds as antirheumatics. It is still disputable whether they shorten the whole duration of the disease; whether they diminish or increase the chance of relapse; or whether they do not tend to foster—certainly they do not prevent—the recurrence of the disease; and it is still a question whether the treatment has any marked influence over heart complications. But we have learnt that if salicyl or the salicylates are to do good, they will do so in a short time, within a day or two. After full use of them for a short time, whether the pain has gone and the temperature has fallen, or not, the salicylates should be replaced by older remedies—such as quinine and alkali. At the Ophthalmological Society a special and very instructive debate was held, in June, upon Sclerotomy. The debate was a very useful one, and the large experience recorded during it showed that the operation has given good results in some cases of nearly every form of glaucoma; but there was a general consensus of opinion in favour of employing it chiefly for cases in which experience has proved that iridectomy often fails, as in simple chronic glaucoma, in glaucoma with intra-ocular hæmorrhage, and in glaucoma in young subjects; and in some other circumstances. The committee appointed by the Clinical Society in October, 1879, "to investigate the causes, consequences, and treatment of hyperpyrexia in rheumatic fever and other acute diseases," presented, this year, a report upon "Hyperpyrexia in Acute Rheumatism." The committee limited their report to a minute and careful analysis of sixty-seven cases of acute rheumatism which had occurred mainly in the ten years ending 1879, but they also made use of the returns of 1300 cases of acute and subacute rheumatism included in the Registrars' Reports of the Middlesex Hospital for the decade above mentioned; so that the whole experience utilised was large. The document presents an exhaustive summary of our knowledge of hyperpyrexia in acute rheumatism, and the part of it that deals with treatment gives indications, guides, and results that must be of much value to practitioners. It is highly creditable to the Committee, and especially to their able and indefatigable secretary, Dr. Sidney Coupland. An abstract of the document is contained in our first volume for the present year (pages 590-92). A new metropolitan medical society, with the title of the "West London Medico-Chirurgical Society," was established during the year, and has held some numerously-attended and successful meetings. At the end of March a very influential and important Association was formed for the Advancement of Medicine by Research, as an outcome of all that was said and shown, during the International Medical Congress, of the absolute necessity of the experimental method for the advancement of medical science; and stimulated, it may be, by the prosecution of Dr. Ferrier. The Association has no political or directly educational purposes; it does not for a moment propose to incite or encourage any opposition to or evasion of the law regulating or preventing experimental research; or, at present at any rate, to seek for a modification of it. It is founded "with the view of bringing the legitimate influence of the medical profession more effectively to bear on the promotion of those exact researches in physiology, pathology, and therapeutics which are essential to sound progress in the healing art." It is formed on a very wide basis, and fully represents the profession. Reports of the formation and proceedings of the Association will be found in our volumes. At a meeting, held in July, it was determined to publish selected addresses and papers on the importance of, and the results to medical science and practice gained by, experimental research; and since then some such papers, and a very able "memorandum" setting forth the necessity and utility of experiments in physiology, pathology, and therapeutics, prepared for distribution among members of Parliament, have been published.

The Medical Services of the Army and Navy and the Indian Medical Service have continued to be very popular. For the Army Medical Department, sixty-four candidates presented themselves at the entrance examination in February; only one failed to reach the prescribed standard, and the educational qualifications of the candidates generally were so high that, though not more than ten appointments were needed for the Service, fifteen were made; and again fifteen candidates were successful at the competitive entrance examination held in August. For the Indian Medical Service thirty-one candidates competed for eight vacancies at the February examination; twenty-seven were reported qualified, and four retired from the contest. In August there were again only eight vacancies, for which thirty-nine candidates presented themselves, all of whom were reported qualified. For the Naval Medical Service twenty-four candidates appeared for six vacancies at the February examination; while at the competition in August twelve candidates gained appointments, and eight others of the competitors were reported qualified.

All the circumstances of the campaign in Egypt are so fresh in the memory of the profession that it would be superfluous to refer to them at any length here. The medical officers of all the Services (Naval and Military, Home and Indian) acquitted themselves right well, rendering most excellent service. It is true that many complaints were made, and some particularised and outrageous accusations, every one of which has been proved to be absolutely false, were brought against the Army Medical Department; but there is every reason to feel confident that whatever shortcomings may have been noted were due to the high pressure caused by the rapidity of the movements of the troops after aggressive operations had been begun in earnest, to the impossibility of obtaining transport *in* Egypt, and to imperfections in the organisation of the transport services generally; and these matters have been under investigation by a War Office committee, whose report may be awaited by the Medical Department without any fear. Meanwhile, the zeal, energy, and efficiency shown by the medical officers have been acknowledged in the military despatches; and it is gratifying to be able to add that promotions and distinctions have been bestowed upon the medical officers promptly, and with a liberal hand. We must not leave this subject, however, without mentioning that on November 23 the profession gave a "banquet of welcome" to the medical officers of the Egyptian expedition, "in recognition of their gallant services." This compliment to our brethren of the Naval and Military Services was a very happy thought, and was admirably carried out. A full and detailed report of the banquet was given in our columns (see vol. ii., pages 640-46): it will long remain a cherished memory in the minds of naval and military medical officers, and an additional bond of good-fellowship between them and their professional brethren in civil life.

The roll of those of our brethren who have joined the majority since our last annual record is a very long one, and, as usual, includes not a few who had only lived amongst us just long enough to show what able and efficient workers they were; many who had justified the promise of their early years in the profession; and also many who, happily for Medicine and for the public, had enjoyed length of days as well as success. We cannot here speak again by name of more than a few of these of our brethren. Dr. Reuben Harvey, of Dublin, died at the age of 36; Mr. James Oldham, of Brighton, at 65; John Flint South died at 84; Mr. Roger S. Nunn, of Colchester, at 68; Sir Robert Christison, Bart., at 84; Surgeon-General S. Hunter-Fasson, M.D., at 58; Dr. George Budd, at 74; Dr. Butler, of Winchester, at 61; Sir E. Burrowes Sinclair, M.D., of Dublin, at 57; Dr. John Brown, of Edinburgh, at 71; Sir John Rose Cormack, at 67; Dr. Thomas Bevill Peacock, at 69; Professor James Spence, of Edinburgh, at 69; Dr. Alexander Silver, at 41; Dr. Richard Giles, of Oxford, at 67; Dr. Charles Morehead, late of the Indian Medical Service, at 75; Dr. William Robertson, of Edinburgh, at 64; Sir James Alderson, M.D., at 87; Mr. J. T. Clover, at 57; Dr. Francis Robert Hogg, of the Indian Medical Service, at 46; Dr. Robert Wishart Lyell died at the age of only 33; Mr. Critchett, at 65; Dr. Richard Cross, of Scarborough, at 64; Dr. John Francis De Grave, at 94; Dr. Peter Nugent, of Kingston, at 77; Dr. Edwards-Crisp, at 76; Dr. George Gulliver, at 78; Dr. W. Pirrie, of Aberdeen, at 75; and, most lately, the Nestor of the profession, Sir Thomas Watson, at the age of 90. And it will not be amiss to note from our columns a few other proofs of the happy fact that, notwithstanding the great and constant wear and tear of our professional work, medical men do not seldom attain to full old age. Dr. H. J. Gore, formerly of the Army Medical Service, died at 84; Mr. P. Blackwood Hallowes, of Canterbury, at 80; Dr. Roger Turner, of Petworth, at 75; Mr. John Thorp, of Malden, at 79; Mr. George Macilwain, at 85; Mr. George Boddington, of Sutton Coldfield, at 82; Mr. Edward Doubleday, at 84; Mr. Richard S. Harvey, of Lincoln, at 79; Mr. C. Etkins, of Weston-super-Mare, and Dr. Andrew Paul, at 78; Mr. P. Bowen, at 86; Mr. Richard White, at 88.

Among eminent practitioners and teachers in the Old and New Continents who have passed away, must be mentioned Professor Nicholas Pirogoff, the great Russian surgeon; Theodore Schwann, the founder of the cell-theory; Professor Oscar Simon, of Breslau, who died at the early age of 37; Hofrath Professor Adalbert Duchek, of Vienna, who succeeded Skoda as Professor of Clinical Medicine; Professor Joseph Pancoast, of Philadelphia; Professor Carl Hunter, of Griefswald, at the early age of 44; Dr. Amédée Latour; Dr. Hillairet, of Paris, author of an important memoir "On Hæmorrhages of the Cerebellum," and other writings; and Camille Joseph Davaine, most widely known through his great work on the Entozoaires, who died lately at the age of 71.

Turning for a few minutes to speak of the contents of our volumes for the year: in the department of Lectures, we have placed before our readers a series of lectures on "The Diagnosis of Diseases of the Skin," by Dr. McCall Anderson, the Professor of Clinical Medicine in the University of Glasgow, and known as an accomplished dermatologist; in the lectures published this year, the subjects treated have been—the "Classification of Skin Diseases," "Functional Affections of the Hair—of the Sebaceous Glands—and of the Sudoriparous Glands," "Organic Affections defined by Uniform Causes," "Parasitic Affections," and "Syphilitic Affections." We have continued Dr. Frederick T. Roberts's clinical lectures on "Diseases of the Abdomen," having been enabled to publish this year eight lectures, treating of "The Symptomatology" of abdominal diseases, of "The Physical Examination of the Abdomen," and of "Abnormal Physical Conditions"; and we have had the pleasure of placing before the profession half a dozen more "Clinical Lectures on Diseases of Women" from Dr. Matthews Duncan, the special subjects spoken on being—"Abdominal Signs," "Pelvic Signs," "Symptoms," "Remote or Indirect Symptoms," "Minor Displacements," and on the use of "Pessaries in Minor Displacements." We have also published Mr. Jonathan Hutchinson's clinical lectures on "The Nature of what is called Sciatica," and on "A Remarkable Case of Lupus Erythematosus"; a clinical lecture on "Croupous Pneumonia in Children," by Dr. Henry Ashby, of Manchester; one from Dr. Sidney Coupland, on "Renal Calculus"; one by Mr. Knowsley Thornton, on "Nephrotomy and Nephrectomy"; Dr. Douglas Powell's clinical lectures on cases of "Pleuritic Effusion," treating of "The Physical Signs," and the "Treatment" of Effusion; a clinical lecture by Mr. Timothy Holmes, on "A Case of Stricture of the Œsophagus, in which Œsophagotomy was performed"; Dr. Bryan Waller's lectures on "Hypertrophy" and on "Dilatation" of the Heart; and Dr. A. Wiltshire's lecture on "Offensive Catamenia, or Bromomenorrhœa." We have given our readers Sir Joseph Fayrer's Croonian Lectures on "The Climate and Fevers of India"; abstracts of Dr. W. Ewart's Gulstonian Lectures on "Pulmonary Cavities, their Origin, Growth, and Repair"; the Bradshawe Lecture on "The Influence of the Sympathetic on Disease," delivered before the Royal College of Physicians by Dr. Long Fox, of Clifton; the Bradshawe Lecture delivered before the Royal College of Surgeons by Sir James Paget, on "Some New and Rare Diseases"; and a full abstract of Dr. E. Seaton's instructive paper "On

the Influence of Small-pox Hospitals." Our pages contain Dr. Matthews Duncan's Presidential Address to the Obstetrical Society; that of Dr. Tripe, on "Some of the Relations of Meteorological Phenomena to Man," to the Society of Medical Officers of Health; and other able and important or interesting papers and addresses.

In the department of "Original Communications," we have again been able to give to the profession some of the valuable papers which they have learnt to look for from Dr. James Russell, of Birmingham; as his communication on "Cases of Suspended Cerebral Function occurring among the Phenomena following Epileptic Fits"; one on a case of "Hysterical Retention of Urine in a Man"; and one on "Unusual Phenomena in Locomotor Ataxy." We published a very interesting article from Dr. Robert Charnley Smith, of Ardwick, on "Poisoning by Lead Dichromate," giving the peculiar symptoms and signs of the affection, and recording the successfulness of the measures taken to protect weavers and others handling yarn coloured by orange chrome, from the poisonous effects of the dye; the remarkable paper by Dr. W. Alexander, of Liverpool, upon "The Cure of Epilepsy by Ligature of the Vertebral Arteries," and on "A New Method of Treating Inveterate and Troublesome Displacements of the Uterus"; Dr. Joseph Ewart's instructive paper on "The Climate of Indian Hill-Sanitaria, in regard of its Value in Scrofula, Tuberculosis, and Phthisis"; an article on "The Value and Use of Opium," and some instructive "Clinical Memoranda of Practice in India," from Surgeon-General C. R. Francis, M.B.; and some further "Practical Notes on the Ordinary Diseases of India," from Dr. Norman Chevers, treating of "Pestilentia—Pali Plague—Mahamurree," and "Intermittent Fever"; and we have published his learned and interesting "Glance at the Sanitary Defects of the Site of London and its Environs." Our pages have contained also communications from Dr. R. Saundby, of Birmingham, on "Two Cases of Paroxysmal Hæmoglobinuria," and on "The General History" of that disease, on "The Presence of Indican in the Urine," and on the "Albuminuria of Epilepsy"; Dr. James Irving's "Note on the Cultivation of Cinchona in India, and on the Use of the Mixed Cinchona Alkaloids"; papers by Dr. William Julius Mickle on a case illustrative of the "Localisation of the Visual Centres of the Cerebral Cortex," and on "Meningeal Tuberculosis of the Cerebral Convexity"; a paper on "Types of Imbecility," by Dr. Fletcher Beach; one on "The Early Treatment of Prostatic Obstruction," by Mr. Reginald Harrison; Dr. Handfield Jones's "Case of Herpes Zoster affecting the Left Arm in an Elderly Person, benefited by Galvanism," and his paper on "Two Cases of Arthritis of the Knee"; an interesting article from Dr. Prospero Sonsino, of Cairo, on "Filaria Sanguinis Hominis, Lymphocele, and other Associated Morbid Disorders"; Dr. James Whitson's (of Birmingham) paper on "Five Cases of Hare-Lip"; a paper by Dr. Charles West on "The Establishment of a Hospital at Nice" for Infectious Fevers occurring among the Visitors; Dr. John H. Morgan's "Contribution to the Etiology of Syphilis"; Mr. Winslow Hall's "Case of Sponge-Grafting"; a paper by Dr. Patrick Manson on "Distoma Ringeri and Parasitical Hæmoptysis"; Dr. John Cockle's "Case of Punctured Fracture of the Skull"; and one on a "Case of Tinnitus Aurium," by Dr. P. McBride, of Edinburgh; Dr. Francis Warner's paper on "Indications of the Nutrition of the Brain"; Dr. W. H. Pearse's "Observations on Consumption"; Dr. Gavin Milroy's article, "Parangi Disease of Ceylon, as allied to Yaws"; Dr. McCraith's "Practice of Physic in Smyrna"; "Memoranda on some of the more Common Maladies met with in Egypt," by Dr. Edward D. Dickson, of Constantinople; an article on a "Rare Form of Aortic Aneurism," from Dr. T. F. Chavasse, of Birmingham; and Dr. William A. Guy's valuable paper (read before the Statistical Society) entitled "Two Hundred and Fifty Years of Small-pox"; and we have published a note by Dr. T. Oliver, of Newcastle-on-Tyne, on "Spasms of the Facial Nerve, or Tic Convulsif"; "Some Queries in Medical Ethics," from Mr. William Fraser, of Aberdeen; and papers from Mr. R. T. Jenkins, of Oxford; Mr. A. W. Mayo Robson, of Leeds; Dr. A. Harris-Bickford; Dr. Arthur Blomfield; Dr. James C. De Castro; Mr. H. A. Lediard; Dr. John Lucas, of the Bombay Medical Service; and other contributors.

Among the valuable articles published "From Abroad," we may mention some observations by Professor Thiry, of Brussels, on "Clinical Teaching"; Dr. Austin Flint's lecture on "The Antipyretic Treatment of Typhoid Fever"; Professor Potain's note on "Anasarca of Nervous Origin"; a paper by Dr. Eskridge, of Philadelphia, on the "Pre-Physical-Sign Stage of Phthisis"; Dr. Stephen Smith's clinical lecture on "Abuse of the Drainage-Tube"; note on the "Treatment of Syphilis," by Dr. G. H. Fox, of New York; Professor Archambault's lectures on "The Feeding of Young Children," on "Treatment of Infantile Hereditary Syphilis," on "The Employment of Blisters in Children," and on the "Indications and Contra-indications of Tracheotomy in Croup"; Dr. Jules Simon's clinical lectures on the "Administration of Belladonna to Children," on "The Convulsions of Children," and on the "Diagnosis of Pneumonia and Pleurisy in Children"; notes of a lecture by M. Péan, of St. Louis, on "The Drainage of Large Wounds." And in another part of the journal, under the heading "Week," we have published very many important observations and papers by eminent French, German, Swedish, and other foreign workers in medicine and surgery. In the department of "Hospital Practice" we have given practical illustrations of our art and science; and we will mention a few among the instructive cases that we have in this way published: Dr. Sidney Coupland's careful and valuable records of "Cases of Malignant Endocarditis," and his case of "Double Hydronephrosis, following Renal Calculus"; Dr. Wolfe's case of "Complete Detachment of the Retina, treated by Puncture of the Sclerotic"; Mr. Rushton Parker's "Series of Hernia Cases"; cases from Dr. Ross, of Manchester, of "Hemiplegia and Hemianæsthesia," and similar affections; a case of "Diphtheria in a Child, with Unusual Complications and Sequelæ," under the care of Dr. Gee, and reported by Dr. John Abercrombie; and Mr. Arthur Barker's "Three Cases of Vesical Calculus."

In our editorial articles we have, as usual, dealt with scientific and practical subjects especially affecting the profession, and with matters interesting to them as a part of the public, and therefore of interest to the public at large. At the commencement of the year we noticed in detail the interesting researches on "Filaria Sanguinis Hominis," by Dr. W. Myers, Surgeon to the "David Manson" Hospital at Takow—researches amply bearing out Dr. Patrick Manson's observations as to the periods of appearance and disappearance of the embryos from the blood of affected persons; and a paper by Dr. Spencer Cobbold on "Filariæ and other Parasites in relation to Epidemics and Epizootics," which was read before the Epidemiological Society, will be found at page 49 of our first volume for this year. We have treated of "Poisoning by Aconite and Aconitia," and of "Poisoning by Aconite in India," of the "Changing Aspects of Medical Science," of the "Use and Abuse of Iodoform," of "Salicin and the Salicylates in Acute Rheumatism," of the value of "Permanganate of Potash in Snake-Poisoning," of Dr. Wolffler's statistics of the "Extirpation of Goitres," of Senator's latest contribution on "Albuminuria in Health

and Disease," and on "German Views of Bright's Disease"; of "Renal Surgery," of "Spinal Disease and Sayre's Treatment," of Dr. Leopold Landau's essay on "Floating Kidney," of "Partial Resection of the Lungs," of "Albuminuria and Eclampsia during Pregnancy," of "The Measurement of the Intra-abdominal Pressure," of "Emmet's Operation," of "Lying-in *versus* Gynæcological Wards," of "Porro's Operation," of "Multiple Fibromata of the Skin," and, in several articles, of Koch's announcement of a "Tubercle Bacillus," and of all that has followed on that discovery; and of "Indications of Treatment from Parasitic Pathology." We have given articles on "The Clinical Society's Report upon Hyperpyrexia in Acute Rheumatism," on "Cystotomy," on "The Waynflete Professorship of Physiology, Oxford," on Professor E. Ponfick's essay on "Actinomycosis Hominis," on the "New Examination Regulations of the Royal College of Surgeons," and especially on "The Proposed Examination in Elementary Anatomy and Physiology," on "Displacements of the Uterus," on "Medical Science and Medical Art," on "Primary Cancer of the Body of the Uterus," on "The Abuse of Alcohol," on "Egyptian Ophthalmia," on the Accusation against, and the Services of, the Army Medical Department in Egypt; on the "Report of the Royal Commission on Infectious Hospitals"; and on the "Classification of Diseases of Wounds."

Among other subjects of interest to the general public, we have spoken on "Provident Dispensaries"; on the importance of "A First Aid and Ambulance Service for the London Hospitals"; on "The Sheffield Poisoning Case" and the Lamson Case; on "Æstheticism"; on the Remedial Value of the "Employment of the Insane"; on "Mechanical Restraint in the Treatment of the Insane," "The Lunacy Laws," "The Safeguards of the Insane," and the Management of "The Willard Asylum for the Insane," at New York; on "Darwin and his Works," the "Hampstead Small-pox Hospital Case," "The Metropolitan Water-Supply," the "Working of the Adulteration Acts"; and on the Legal Interpretation of "The Metropolitan Improvement Act, 1877, Section 33"; on the "Health Risks of the Expedition to Egypt," "The Use and Influence of Hospitals for Infectious Diseases," the Proceedings of the "International Congress of Hygiene," and the "Health of Brighton"; on "Thought-reading," and upon other general and public subjects.

Finally, we thank most heartily all our contributors for the aid so kindly and ably given; and we wish our friends and brethren, at home and abroad, a Happy and Prosperous New Year.

THE WEEK.

TOPICS OF THE DAY.

THE Public Analyst (Professor Corfield) for the parish of St. George's, Hanover-square, in issuing a special report on the fines that have recently been inflicted by magistrates in cases of adulteration of food, in which convictions have been obtained through his certificates, concludes with the following remarks:—"I have on several occasions pointed out that the fines have appeared quite inadequate to the offences, and the tendency of the magistrates to inflict merely nominal fines seems to be increasing. Now, however, that a man has been fined only 1s. and 12s. 6d. costs for adulterating milk with 20 per cent. of water, having previously been convicted of adulterating two samples, and fined 2s. 6d. and £1 5s. costs in each case, not only has proof been obtained that the fines imposed are not sufficient, but the question is raised whether it is really worth while to put the machinery in work to get a conviction, when the only result is to bring the Act of Parliament into ridicule." The report then proceeds to recapitulate in detail the steps which have to be taken before the case can be brought into a police-court, and concludes by observing that it seems little better than a farce to obtain a fine of one shilling after so much trouble has been taken and so much expense incurred by vestry authorities; while it is abundantly clear that such fines will not have the slightest effect in preventing adulteration. It is difficult to understand why the Adulteration Acts should not command the effective sympathy of our magistrates; but, looking at the general character of their decisions and sentences, we fear it must be held that they do not. It is not easy to recognise any valid plea for leniency when the offender is not only cheating everyone who deals with him, but also, in many cases, tampering with their health; yet magistrates decline to make examples, and, by want of a little judicious severity, actually encourage the wrong-doers to continue their noxious practices.

The Local Government Board have recently addressed a letter to the City of London Union, Bartholomew-close, in which they state that their attention has been drawn to the fact that at some of the metropolitan pauper infirmaries and asylums for the sick it is the practice at certain seasons of the year to permit entertainments to which the friends of the officers are invited, and at which dancing and music are allowed. Those establishments being expressly provided for the treatment of the sick poor, and being occupied by patients suffering from every variety of disease (on many of whom festivities carried on in the same or in an adjoining building would have a very prejudicial effect), it appears to the Board that they are especially inappropriate as places for entertainments of the kind referred to; and they do not doubt that the guardians and managers, on their attention being drawn to the subject, will concur in the view that music and dancing should not be permitted in infirmaries and asylums for the sick, and it is hoped that if the same has occurred at any time, orders will be given to prevent any repetition.

A meeting of workmen and employers of labour was recently held at West Ham, under the presidency of Mr. Hamilton Hoare, the treasurer of the Hospital Saturday Fund, to endeavour to secure for the workmen of Stratford, West Ham, and the surrounding districts a share in the advantages of the seaside convalescent home for working-men which the promoters of the Hospital Saturday Fund are trying to establish at St. Margaret's Bay, near Dover. The chairman explained that the Council of the Fund had already purchased for £2500 a house at St. Margaret's Bay, which stood upon a site of seven acres, and which was in every way most suitably adapted for the purpose intended; that it was proposed to start the home by collecting for it both from workmen and from their employers, and that when once started on a safe basis the promoters would withdraw from it altogether, leaving the management in the hands of the Committee who would be appointed for that purpose, and that it was then hoped the institution would be self-supporting. Resolutions were eventually adopted approving of the scheme, and a committee was appointed to assist in its development.

At the last meeting of the City Commission of Sewers, Dr. Sedgwick Saunders, the medical officer of health, reported that during the preceding fortnight 584 houses had been inspected, of which number nine required sanitary improvement; seven tons and two hundredweight of meat had been seized and destroyed; and forty-three deaths and thirty births had been registered. The mortality for the week ending the 16th inst. was, he pointed out, exceptionally high, being at the rate of 31·42 per 1000 per annum, and

included twelve deaths from diseases of the respiratory organs consequent upon the weather. In connexion with this high death-rate in the heart of London, it is satisfactory to be able to record that just previous to Dr. Saunders presenting his report, the Commission had been engaged in considering whether the recent extensive fire in Wood-street might not be turned to account as a means for widening some of the cramped thoroughfares in that neighbourhood.

Recently, at the Liverpool City Sessions, Lewis George Wynne was charged with having, on October 6, 1882, unlawfully signed, in the name of D. M. Kennedy, M.D. Ed., etc., a false certificate of the successful vaccination of Mark James. He was also charged with committing a similar offence on September 26. The prosecution was at the instance of the Liverpool Medical Defence Association. The accused was assistant to Dr. D. M. Kennedy, practising as a surgeon in Liverpool, and having also a dispensary where he vaccinated children. Dr. Kennedy stated in evidence that the accused had never any authority to use his name. The man pleaded guilty and was fined £5 and costs.

At a recent meeting of the Lambeth Vestry, Mr. Symons moved—"That a memorial be at once sent by the Vestry of Lambeth to the Queen and the Government, praying the latter to introduce an Act of Parliament enacting that the grounds at Lambeth Palace, now used for pasture and recreation grounds, may be severed from the Archbishop of Canterbury's town residence, and handed over to the Board of Works for recreation grounds for the people at large." Mr. White, in seconding the motion, took the opportunity of reading a letter on the subject he had received from the Prime Minister, which explained that Mr. Gladstone was unable to receive any deputation in connexion with the matter, and pointing out that, if it is deemed desirable that the Lambeth Palace grounds should be acquired, and that Parliament should be invited to legislate for such a purpose, any plan proposed would have his careful consideration. The Prime Minister appears to invite agitation to take for a "public" recreation ground land which belongs to Lambeth Palace. People who really think about the matter will probably be of opinion that the field or fields in question had better remain in the hands of the Archbishop. Under his care, and with his permission, they have been freely used as a quiet, safe recreation ground for invalids and children—a much better thing than being turned into open public grounds, with rigid borders and gravel walks—formal, dusty, and noisy.

The Society of Apothecaries, it is announced, have decided to found two scholarships—one in clinical medicine, therapeutics, and hygiene, and the other in surgery. The amount, tenure, and other particulars of the scholarships will be published early in the ensuing year. It is also stated that Mr. J. F. de Grave, a former Master of the Society, has bequeathed to it a legacy of £3000, free of duty, in augmentation of the fund for the relief of distressed members.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

Some unfortunate disturbances and disorders having occurred in this school a short while ago, the Council have had under very careful consideration the whole of the arrangements at the College, with the view of making any changes that might seem necessary or advisable in order to improve the tone and discipline of the school. They have determined to enlarge the powers and strengthen the hands of the Head Master in some directions, so as to assimilate his position more closely to that of the Head Master of the older public schools; and they have decided on the adoption, with some necessitated adaptation, of the system of house-masters, which prevails in some form in nearly all the best public schools. These changes require some alterations in the bye-laws of the College, and the necessary alterations were to have been submitted to the Governors of the College at a general meeting summoned for the 20th inst. No quorum was obtained, however, on that occasion, and the meeting is now called on Wednesday, January 10, at four o'clock, at 37, Soho-square. We trust the Governors of the College will attend numerously. The matter is one of very great importance to the prosperity of the school; and it is urgent.

THE PARIS WEEKLY RETURN.

The number of deaths for the fiftieth week of 1882, terminating December 14, was 1094 (614 males and 480 females), and among these there were from typhoid fever 49, smallpox 7, measles 16, scarlatina 3, pertussis none, diphtheria and croup 43, erysipelas 3, and puerperal infections 4. There were also 42 from acute and tubercular meningitis, 212 from phthisis, 45 from acute bronchitis, 75 from pneumonia, 63 from infantile athrepsia (25 of the infants having been wholly or partially suckled), and 37 violent deaths (29 males and 8 females). The number of deaths registered is larger than the mean of the last four weeks. Those from typhoid fever have diminished from 62 to 49, while those from diphtheria have increased from 34 to 43. But although the number of deaths from typhoid fever has diminished, that of the admissions to the hospitals, while somewhat less (171 in place of 185), still continues above the ordinary mean. With respect to typhoid fever, it is to be observed that the Paris garrison has enjoyed a comparative immunity during 1882 as compared with 1880 and 1881. The births for the week amounted to 1231, viz., 654 males (492 legitimate and 162 illegitimate) and 577 females (405 legitimate and 172 illegitimate): 109 infants were either born dead or died within twenty-four hours, viz., 59 males (38 legitimate and 21 illegitimate) and 50 females (40 legitimate and 10 illegitimate).

CHRISTMAS AT CHARING-CROSS HOSPITAL.

A Christmas entertainment to the patients is now an established institution at Charing-cross Hospital. This year more than ever was done to make the season full of enjoyment. On the evening of the 18th inst. the children had a great treat, in the way of an hour with "Punch and Judy," being carried down to the board-room and comfortably deposited in *quasi* stalls—really on mattresses—on the floor. The great event, however, consisted of two dramatic and musical entertainments given to the adult patients on the evenings of the 21st and 22nd inst., by the Students' Club, who invited several of the leading governors, the medical staff, and other of their friends to witness the acting. *Our Wife* and *The Spitalfields Weaver* were most artistically played by Messrs. Bloxam, Cantlie, Molyneux, Dalby, Leech, Beckley, Davey, Farr, Ackland, and Sheppard, assisted by three lady friends. The musical part of the entertainment was under the direction of Mr. Treasure, Junior House-Physician, and Mr. J. C. Smith. We congratulate the Students' Club on the complete success of their efforts at once to amuse the patients and to promote a healthy feeling of cordiality and friendship in the Hospital.

ACADÉMIE DE MÉDECINE.

In the Section of Medical Pathology, Dr. Potain has just been elected by the suffrages of forty of the seventy-six academicians who were present.

THE CHOLERA.

According to the *Veröffentlichungen des Deutsches Gesundheitsamtes* for December 18, the number of deaths from cholera at Mecca, from October 24 to November 6, amounted to 290. The disease has now ceased. In Japan, between April 26 and October 5, there occurred 47,089 cases, with 27,757 (58·2 per cent.) deaths. In the capital, Tokio, there were 6499 cases, with 5031 deaths. In French Cochin-China the disease has nearly ceased since the middle of October.

THE HEALTH OF THE TROOPS IN EGYPT.

The latest report of the health of the troops in Egypt states that great exertions have been made to get the whole of the infantry into barracks, and though some of the troops of the First Brigade are still not completely housed, the matter may be considered to have been practically carried out. The sick-list still remains high among the troops at Abasieh, Cairo, and Helman, while at Alexandria the regiments are in very good health The experiment of sending sick officers and men up the Nile answers remarkably well. The arrangements made for this purpose by Mr. T. Cook, of Messrs. Cook's well-known firm, have given great satisfaction, and are worthy of all praise. Lady Strangford's hospital at Cairo has been of great and valuable service; many officers have been sent home from it convalescent. One death had occurred, on the 10th inst.—that of Captain Lopes, of the Highland Light Infantry, from typhoid fever. The expense of converting what was Arabi's private residence into this successful hospital was very large.

THE RECENT ROYAL VISIT TO HASLAR HOSPITAL.

Her Majesty the Queen paid her promised visit to Haslar Hospital on the 23rd inst. The naval patients have not been left so long unvisited through any forgetfulness on the part of Her Majesty, but an outbreak of scarlet fever in the establishment rendered a postponement imperative. On her arrival, the Queen was received by Admiral Hornby, K.C.B., and staff, and Dr. Morgan, C.B., Inspector-General of Hospitals, and the staff of the Hospital, and was conducted along the spacious corridor and up the broad oak staircase into No. 2 Ward on the surgical side. Into this the only two wounded officers remaining were wheeled in chairs, and received their medals from Her Majesty. A slight deviation from the programme laid down was due to the Queen's consideration for the patients. In the centre of No. 2 Ward an arm-chair had been placed for Her Majesty, past which the wounded from No. 4 Ward were to file to receive their decorations. The Queen, however, thought that the exertion of coming from another ward might be too much for the invalids, and accordingly the Royal party proceeded to No. 4 Ward, where the patients were drawn up in line, all being in hospital clothing, and Her Majesty pinned the medals on the breast of each. The Queen finally visited No. 7 Ward on the medical side of the Hospital, where the patients were confined to their cots. Her Majesty went to each man, and, after expressing her approbation of his conduct in appropriate terms, affixed the medal to the front of his shirt. Before leaving, the Queen expressed herself highly pleased with the arrangements made for the patients, and with the condition of the Hospital.

Disinfecting Iodoform.—Dr. Yvon effects the abolition of the smell of iodoform by the very simple procedure of incorporating with it a little essence of roses. Half a drop of the essence removes the odour of sixty grammes of iodoform, the compound retaining that of the essence.—*Journal de Thérapeutique*, November 25.

FROM ABROAD.

Dr. Formad on Bacteria.

The *Philadelphia Medical Reporter* (November 25) has the following article on the office of bacteria:—

"Dr. Formad, of Philadelphia, has made some experiments from which he is led to believe that, contrary to the generally accepted view, bacteria are not the cause *per se* of disease, but are merely the vehicle of contagion—the means by which the poison of certain diseases is carried from one organism to another. He has found the tubercle-bacilli of Koch, or at least bodies identical with them, in the sputa of non-phthisical patients. He has taken matter infested with the diphtheritic micrococci (first discovered by Prof. Wood and himself), and has succeeded in producing the disease in animals, while micrococci from the very same specimen, *after a thorough washing in plain water*, were perfectly harmless. He believes that bacteria exist in all nature, and that, even when charged with the elements of disease, they cannot produce the disease unless they find a resting-place in some body that is, on account of some unexplained conditions, a suitable pasture for the growth and development of the particular disease.

"This view, which seems to be a very rational one, has two important practical bearings. In the first place, it teaches us very forcibly the value of water as a disinfectant; and in the second place it lends much additional force to the idea that infectious diseases are due to chemical influences, which theory, if demonstrated, will do much towards increasing the potency of our therapeutical resources. If these bacteria carry certain elements that are capable of producing disease, it is not unreasonable to hope that chemistry will step in and tell us the chemical nature of these poisons. From this standpoint it will be but a step to name the chemical that will prove the antidote; and by this process can we arrive at the most rational treatment of infectious diseases. Dr. Formad promises to have more to say on this subject, and we look forward to his researches with interest, for it would seem that he is on the right track."

Mr. Herbert Spencer on America.

A speech delivered by Mr. Herbert Spencer in New York when leaving America on his return home has excited much attention both in America and in this country. In it he forcibly cautioned his auditors that they were living too fast, exhausting their energies, and shortening their lives by overwork and the neglect of necessary relaxation, the high pressure under which they were living undermining their physique. These views, coming from so high an authority, have generally been received as a matter of course, but a writer in the *Philadelphia Medical Reporter* (November 25) shows clearly enough that even a distinguished philosopher can be guilty of hasty generalisation. While admitting that there is a certain amount of truth in the statement, he goes on to show how partial is its bearing when speaking of America at large.

"There is a great deal of high pressure in certain centres of American life; there is fast living in every sense in certain strata of society. But are we, as a nation, much given that way? In spite of all those respected neurologists who have so much to say on this subject, and whose reiterated statements Mr. Spencer did but echo, we do not believe it. It is highly characteristic of a New York doctor to be ignorant that any part of the American nation lives outside of New York City. It is a venerable trait of travellers to judge all of a country by the few specimens or classes they see in a few weeks' or months' trip. If Mr. Spencer wished to see American life as it is carried on by the great mass of our fifty millions of people, he should have had us pilot him to an interior town of Pennsylvania, or some country seat in Virginia, or to some cross-road general store in any of the thirty States, and have there passed a few weeks. If he had not found a life as dull, as monotonous, as free from nervous strain or high pressure, as any he had ever seen, then we are out in our reckoning. Yet it is just this life that forty-eight out of our fifty millions lead. Of course, take the two or three greatest cities of any prosperous nation, and the two or three busiest streets, and the

hardest brain-working classes in those cities, and they are under an unhealthy degree of pressure. But how absurd for a man, and especially a philosopher, to be led astray by such a narrow and faulty generalisation as to suppose that what is true of these few is true of the mass! Yet that is just what Mr. Spencer has done.

"As to his supposed facts, that men grow grey sooner in the United States, that they suffer more from nervous collapse, that more kill themselves from overwork, there has never been, and is not now, any evidence that any of these are so. There is plenty of testimony to the opposite statement, that our people are better fed, better clothed, have healthier lives, bodies as strong, and a surer prospect of a green old age, than the English, German, or French in their own homes. Are we asked where is this testimony? We reply, where it has been to the interest of powerful and wealthy corporations to get it accurately for business purposes, not for the sensation of an after-dinner speech. We mean the life insurance companies. Their tables show that the expectation of life is, in this country, on the grand average, rather better than in any of the three countries named, and in special fields very decidedly better. So much for the value of all this talk about physical deterioration' in the United States, and so much for the 'broad and deep generalisations' which some philosophers indulge in about a vast nation and its constitution after they have dined in a very select circle in one or two of its great cities and have stayed overnight at several of its finest hotels!"

REVIEWS.

Speech and its Defects, considered Physiologically, Pathologically, Historically, and Remedially. By SAMUEL O. L. POTTER, M.A., M.D. Philadelphia: P. Blakiston, Son, and Co. 1882.

DEFECTS of speech are divided into three classes by our author. 1. Alalia, *i.e.*, absence of speech, which may be psychical, *i.e.*, due to cerebral lesions, or paralytic, *i.e.*, due to disease of the centres in the medulla oblongata. 2. Paralalia the author makes some apology for the word, *i.e.*, defective speech, vicious pronunciation—and of this there are many varieties, the first being "lalling," and the next "blæsitas." We shall perhaps be pardoned if we refrain from quoting any more of them. 3. Dyslalia, or stuttering, *i.e.*, difficult, interrupted speech. Of this there are three varieties, viz., spasmodic hesitation, characterised by a slight choking, and impeded action of the respiratory apparatus; clonic spasm of articulation, characterised by the repeated utterance of one sound before the next can be emitted; and "tonoid" spasm of articulation, a temporary inability to articulate, the organs being held tightly together.

The author dismisses alalia and paralalia in a very few pages, and devotes his whole attention to the subject of stuttering. He must have spent no little time in investigating the history of the theories and practice of the various writers from the time of Hippocrates downwards, and he certainly has given us an interesting if not a very instructive chapter. Amongst the many causes assigned we may quote the following:—"Hahn (1736) blamed the hyoid bone." "Haen (1760) perceived pulmonary vomicæ at the bottom of the trouble." "Santorini (1705) placed the cause in the abnormal size of two holes in the middle region of the palate (the palatine canals)."

The treatment of stuttering has consisted mainly in the acquirement of some trick to distract the attention or maintain the tongue in a particular position; or else in some operation upon the tongue itself. Amongst those operations which have been recommended we may mention cutting the frænum, removing a wedge-shaped piece from the base of the tongue, or division of the hyoglossi, styloglossi, and genio-hyoglossi muscles, or of some of them. We have already quoted the author's definition of the varieties of stuttering, the essential feature, in his view, being spasm, *i.e.*, deranged nerve function. The spasm may occur at the lips, at the tip of the tongue, at the base of the tongue, or rarely at the larynx. Amongst the proximate causes, those on which the author lays the greatest stress are imitation and mental expectancy; as he says, "The very anticipation by a sensitive mind of a difficulty in executing a certain combination will almost invariably induce a spasm thereat,"—and, unless we are very much mistaken, this will be found to hold good when applied to many other cases than stuttering. There is nothing new in the kind of treatment recommended by Dr. Potter; he says, "The only rational and efficacious method is disciplinary exercise of the respiratory, vocal, and articulating organs, conducted unremittingly and patiently, until a correct habit of speech is established, and aided by the use of the utmost degree of will-power of which the patient is capable." For the exact method of carrying out this disciplinary exercise, and for a good deal of useful and interesting information upon this subject, we must refer the reader to the book itself. The author himself has been the subject of this affection, and has studied it in a very careful manner. The chief fault we have to find with him is, that he does not say whether he has cured himself or not.

Diseases of the Skin. By Dr. DUHRING. Third Edition. Philadelphia: Lippincott and Co.

THIS will be found to be a critical revision of the previous edition of Dr. Duhring's well-known work on Diseases of the Skin. The new book also contains much valuable additional matter. The following more important changes may be mentioned:—The entire chapter on the anatomy and physiology of the skin has been rewritten. Unna's views upon the structure of the different epidermic layers are added: also Klein's observations on the lymphatic system of the skin. The article on the hair and its associated structures has been amplified, and the formation of the root-sheaths more fully explained. In the chapter on the disorders of secretion the chief additions are Unna's researches on the pigmentation of the comedo, and Thin's treatment for bromidrosis of the feet. The disease molluscum contagiosum has been removed from this group, and transferred to the hypertrophies, in accordance with the more modern doctrines concerning the pathology of this affection. Dr. Duhring gives it the name "molluscum epitheliale." To the chapter on eczema is added important detail as to the diagnosis between eczema and chronic ringworm of the scalp. The affection of the nipple preceding cancer (Paget's disease) is also discussed. "Dermatitis circumscripta herpetiformis," a disease described by Neumann, is omitted. Crocker's investigations on the pathology of lichen ruber are given in the chapter on that disease. Under the name "Pityriasis rosea" is described an affection which in the previous edition received the name "Pityriasis maculata et circinata."

Throughout the work many recently reported cases illustrating the rarer affections of the skin are introduced (references to the original papers being given), also full details concerning the newest remedies and methods of using them. There are about forty additional pages in the new book, the type and general get-up of which leave no room for improvement.

Reseña del Segundo Ejercicio del Instituto de Terapeutico Operatoria del Hospital de la Princesa.

Second Year's Reports of the Institution of Operative Therapeutics, Princess's Hospital. Madrid. 8vo, pp. 416.

THE work before us comprises a detailed summary of all the most interesting surgical cases treated during the session 1881-82 in the Institution of Operative Therapeutics, which (as some of our readers may perhaps recollect) was founded a few years since for the express purpose of affording sound practical instruction to duly qualified medical men desirous of attaining perfection in operative procedures.

These *Reports* are in reality deserving of their appellation, for, unlike some of the so-called reports of our own hospitals, they refer exclusively to cases treated within the hospital itself. The work is divided into three parts: one by Dr. Rubio on general surgical cases, another by Dr. Ariza on aural and laryngeal surgery, the other by Dr. Buissen on electro-therapeutics,—all three impressing us favourably, and leading to the conviction that the cultivation of those departments of therapeutics in Spain is not below the level of that of other countries. That portion of the book devoted to general surgery, the perusal of which we would specially commend to surgical teachers who are acquainted with the language, is a model of honest, original, and searching clinical exposition.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 19.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

MR. BOWLBY showed some casts, made of a new material, of a hand, two ears, and part of a forearm. The material was compounded of gelatine, chalk, honey, and glycerine, a little carmine being added to give the flesh-colour. So far as his experience went at present, they kept very well.

INTESTINAL POLYPI.

Mr. BOWLBY brought forward three cases illustrating the varieties of intestinal polypi:—1. In a man, aged sixty-four, who had had no intestinal symptoms, there were found diffuse polypoid growths throughout the colon, commencing just above the ileo-cæcal valve, and extending down to the sigmoid flexure. They were found in the mucous and sub-mucous tissues, and some were pedunculated. It was noteworthy that there was no stricture of the intestine. 2. A polypus removed from the rectum of a girl aged twenty-four, who had had no intestinal symptoms beyond slight constipation. The polypus was attached to the anterior wall of the rectum, about four inches from the anus; it was soft and succulent, and covered everywhere by mucous membrane. It was accidentally ruptured during removal, and some turbid fluid escaped. After removal it weighed two pounds all but an ounce. Its chief interest lay in its size. 3. A polypus of the small intestine occurring in a female child, aged five. He gave the following history of the case:—She was seized with pain in the abdomen suddenly one day; next day she passed some blood by the bowels, and during the next few days slime. She was admitted into St. Bartholomew's Hospital, ten days after the commencement of her illness, with a mass protruding from the anus, which eventually came away, and a portion of which was recognised to be the vermiform appendix. After this the child went on well, and left the hospital apparently recovered. Some months later she was brought back with symptoms of congenital syphilis, was readmitted, and died not long afterwards. At the autopsy the cause of death was recognised to be recent peritonitis. On opening the intestine, a polypus of fibrous tissue was found about eight inches from the anus, but evidently in the small intestine, and three inches and a half below this there was a transverse scar completely encircling the gut, where the small intestine, at what might have been the ileo-cæcal valve, had become adherent to the rectum or sigmoid flexure, so that the whole of the colon and cæcum had disappeared by sloughing. There was very slight constriction at the site of the scar. Mr. Bowlby remarked that when a polypus set up intussusception it was usually the part to first present at the anus and be expelled. In this case it must be assumed that the polypus had set up increased peristaltic action of the intestines below it, and had never been actually involved in the invagination itself.

Dr. COUPLAND observed that polypi were not an infrequent cause of intussusception, and referred to the case of a young woman under his care in the Middlesex Hospital some two years ago, which had been published in the *Clinical Society's Transactions*, where an intussusception had been set up by a polypus in precisely the same way as in Mr. Bowlby's case. He also alluded to a specimen of multiple polypi of the colon in the Middlesex Hospital museum.

Mr. CRIPPS remarked on the enormous size of the polypus in Mr. Bowlby's second case; referring to the first case, he said that disseminated polypi in the colon were very rare; he referred to the specimen in the Middlesex Hospital museum, and also to one in the museum of Guy's Hospital; he said he had shown a specimen here last year, taken from a girl whose brother was also the subject of multiple polypi. He thought they began in a small collection of cells in the submucous tissue, which afterwards became a pedunculated tumour owing to straining. He considered the disease somewhat analogous to molluscum fibrosum, the tumours of which might easily be made to become pedunculated if pulled upon. In reference to the third case, he could not understand how the polypus could have been only three inches from the ileo-cæcal valve; the length of small intestine invaginated must have been equal to half of that of the colon, and the polypus must therefore have been more than a foot above the valve.

The PRESIDENT said that in his experience polypi in the rectum were commoner in small boys.

Mr. HENRY MORRIS did not think polypi of the rectum so very rare. Quite recently he had seen a man with six or eight polypi in the rectum; he suffered a good deal from tenesmus. He wished to ask Mr. Bowlby whether his patient had had any symptoms.

Dr. GOODHART observed that there were three kinds of polypi—one fibro-cellular, covered over by mucous membrane, as in Mr. Bowlby's second specimen, of which he remembered to have seen one instance, though smaller than the one brought that evening; next, the firm mucous-membrane polypus, well known in young boys; and thirdly, disseminated pedunculated villous polypi. He could not agree with Mr. Cripps about the site of the polypus in the case of intussusception, and saw no difficulty in believing that it was quite close to the ileo-cæcal valve.

Mr. BOWLBY, in reply, thought the chief interest in his cases lay in the fact that the polypi were mucous, and not fibrous. He was of the same opinion as Mr. Cripps, viz., that a considerable portion of the small intestine—probably a foot—must have been lost.

PYÆMIA IN THE KANGAROO AND PYTHON.

Mr. SUTTON exhibited the liver of a kangaroo showing 200 abscesses on the surface or in its substance. Their walls were surrounded by hard palish material, and they contained pus; one had burst on the surface, causing a fatal peritonitis. He remarked that abscesses of the liver were common in birds. His next case was that of a large python, seven feet long, which died four days after its admission into the Zoological Gardens, so that unfortunately nothing was known of its clinical history. He found, on autopsy, a large abscess in the neighbourhood of the gall-bladder, containing a pint of pus. The pericardium was distended with five ounces of bloody serum, containing some shreddy lymph; the liver contained multitudes of minute abscesses. He then demonstrated the circulation in the python, showing how septic matter might travel to the pericardium from an abscess so situated.

Sir JOSEPH FAYRER being called upon by the President, said he had no experience of abscess of the liver in animals. He had always regarded these minute so-called abscesses as local deaths around which the tissues gave way and an abscess was formed.

NEURITIS IN INFANTILE PARALYSIS.

Dr. WALTER EDMUNDS exhibited microscopical sections of the internal popliteal nerve in three cases where the limb had been amputated some twelve years after the onset of the disease. In each case some healthy and some degenerated nerve-fibres could be seen, and there was in addition a considerable hypertrophy of the endoneurium in places, which, however, he regarded as probably secondary to the atrophy of nerve-fibres.

Dr. BUZZARD did not quite agree with the last remark, and thought that if the central disease were inflammatory, the bloodvessels of the connective tissue would be most affected.

Mr. BOWLBY, judging from what occurred after injury to a nerve, thought that the sclerotic change was probably secondary. He thought that the spot of connective tissue marked the site of what once had been motor nerve-fibres.

SECTIONS OF NEUROMATA.

Dr. HALE WHITE showed some microscopical sections from different cases. 1. A neuroma at the end of the median nerve after two years' duration. This showed the nerve-fibres coiled up, and a large amount of multiplication of the connective tissue nuclei followed by sclerosis. 2. From a neuroma of six years' duration. This showed complete molecular, granular, and fatty degeneration. He considered that the sequence of events was that the nerves grew, then became coiled up, and finally underwent degeneration because they had nothing to do. He had examined sections above the nerve tumour, and found a few healthy nerve-fibres, but an enormous increase in the amount of connective tissue. As regarded the spinal cord, the wasting of the tractus inter-

medio-lateralis was found to be marked in the lumbar region, but did not extend into the dorsal region. 3. In a case where the median nerve had been cut, the lower end had degenerated completely. Lastly, he referred to a case where amputation of a finger had been performed for a tumour, and the growth had returned, implicating one of the digital nerves.

Dr. Hoggan did not think that the specimens brought forward that evening tended to increase our knowledge at all. He thought the day was long gone by when we could learn anything from transverse sections, and that in future, if we were to find out anything at all, it must be by tracing the nerve-fibre in its whole length; the axis-cylinder, myelin, and interannular nucleus must be separately studied, and by the aid of such remedies as osmic acid and gold.

Periosteal Enlargement of the Bones in an Infant.

Dr. Goodhart showed the calvaria, vertebral column, base of the skull, and sections of some of the long bones of a child aged one year and three months. The mother had contracted gonorrhœa shortly before the birth of this child, but there was no evidence that she had had syphilis. She had two other children, one of whom was rickety; and she had not miscarried. This child had had ophthalmia since two days after birth. It was weaned at the age of three weeks, and had since then been fed upon beef-tea, milk, and cod-liver oil. It had sweated very profusely in early life. At twelve months old its spine became curved, and it had pain when it was moved. Later on its arms and legs swelled; and when brought to the hospital its ribs were beaded, the ends of the long bones were enlarged, the spleen was enlarged, there were spots on the buttocks, and some craniotabes. At the autopsy there was found enormous thickening of the skull, of the shafts of the long bones, and of the spine. All the hypertrophied bones were very soft, and the bones of the skull could everywhere easily be cut with the knife, except the petrous bone. The hypertrophy was mostly, so to speak, periosteal, but the deeper parts had also suffered, and in some of the long bones the medullary canal was completely obliterated. There was marked rachitis. He thought that this corresponded more with M. Parrot's spongioid form of osteophyte than with anything else. He did not think it could be considered purely rachitic. He asked how far it might be related to osteitis deformans. This latter had, as was well known, close relations with tumour, and it was possible to take a similar view as to the nature of this case, viz., that of generalised bone tumour, which might possibly have commenced in a syphilitic process. A somewhat insufficient microscopical examination had been made, but nothing but ordinary bone was found.

Dr. Norman Moore thought that the bodies of the vertebræ had not the form at all that they had in rickets, nor was there any increase in thickening along the sutures of the skull as in rickets. He thought Dr. Goodhart's last suggestion as to some form of generalised bone-tumour a good one.

At the suggestion of the President the specimen was referred to the Committee on Rickets.

Addison's Disease.

Dr. Goodhart exhibited a dissection of the changes in the abdominal sympathetic and supra-renal capsules in a case of Addison's disease. The patient had died from sickness, which had been supposed to be merely sea-sickness, as he was not known to have been ill previously. There was no bronzing, and the capsules were very large, and therefore, probably, the disease was quite recent.

Pyæmia from Syphilitic Bone-Disease.

Mr. Victor Horsley related the case of a man who came under his care with eleven large abscesses in the cellular tissue, secondary, he believed, to necrosis of his frontal bones. At the post-mortem examination there was found to be acute necrosis of the malar, frontal, nasal, and inferior turbinated bones; the frontal bone was also excessively sclerosed. The mucous membrane of the nose and pharynx showed acute hyperæmia and recent ulceration. The lungs were somewhat cirrhosed at the apices. The brain contained an excess of cerebro-spinal fluid; the arachnoid and pia mater at the base were opaque and milky; the left lobe of the cerebellum was congenitally deficient, the flocculus being absent. The ventricular surfaces of each cusp of the aortic valves were ulcerated and covered with a layer of fibrin, which he regarded as pyæmic. The interesting point was that there was no visceral lesion of pyæmia, except the heart affection. He also showed some micro-organisms found in an abscess in another case of pyæmia, except the heart affection. He also showed some micro-organisms found in an abscess in another case of pyæmia. In regard to the presence of these organisms, he recollected a case of pyæmia in which they were found, and as the patient improved they diminished in number in the newly formed abscesses, until before his recovery they had quite disappeared.

Calculi of Carbonate of Lime.

Mr. Shattock showed three calculi, composed almost entirely of carbonate of lime, taken from an ass, a horse, and a dog.

Dr. Bedford Fenwick showed, by card, a recent specimen of Cancer of the Omentum.

MEDICAL NEWS.

University of Dublin.—Michaelmas Term, 1882.—At the examination for the degree of Bachelor of Medicine (M.B.), held on Monday and Tuesday, December 4 and 5, the successful candidates passed in the following order of merit, viz.:—

Cassidi, Francis R.	Hanley, Richard G.
Cormack, Eugene.	Finnegan, Joseph P.
Fenton, Arthur W.	Fitzgerald, John.
Haughton, Thomas W.	Fagan, Charles W.

Freeman, Denis W.

At the examination for the degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, December 11 and 12, the following was the order of merit assigned to the candidates:—

Fenton, Arthur W.	Bulfin, Joseph.
Mouillot, Francois A.	Carte, William A.
Cassidi, Francis F.	Gowland, John W.
Bennett, William H.	Finnegan, Joseph P.
Peard, Henry W.	Lloyd-Apjohn, George.

Whitestone, Augustus M.

At the examination for the diploma in State Medicine, held on Thursday, December 14, and following days, the diploma was granted to—

Hall, Edward Gordon.

Apothecaries' Hall, London.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 21:—

Cuffe, Robert Ernest Gilhurst, Woodhall Spa, Lincolnshire.
Davidson, Hugh Morgan, Aldeburgh, Suffolk.
Dent, Harry Lord Richard, Wood-street, Woolwich.
Griffin, Richard Falk, Padstow, Cornwall.
Lyons, Thomas, 364, Brompton-road, W.
Wingrave, Vitrurius Harold W., 55, Torrington-square, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Clarke, James F. Howard, Charing cross Hospital.
Holloway, Robert, St. Thomas's Hospital.
Rees, William Thomas, London Hospital.
Shorthouse, William Stanley N., Guy's Hospital.
Wetwan, William A., London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to all new Appointments that take place.

Robert Maguire, M.D. Lond.—Pathological Registrar to the Manchester Royal Infirmary, *vice* A. H. Young, M.B. Edin., F.R.C.S., resigned.

BIRTHS.

Arnott.—On December 20, at 140, Camberwell New-road, the wife of Sandford Arnott, L.R.C.P., of a daughter.

Carne-Ross.—On December 21, at Shian Lodge, Penzance, the wife of Joseph Carne-Ross, M.D., F.R.C.P., of a son.

Cripps.—On December 22, at 2, Stratford-place, W., the wife of William Harrison Cripps, F.R.C.S., of a son.

Frolliott.—On December 22, at Sandgate, Shorncliffe Camp, the wife of Surgeon-Major W. Frolliott, A.M.D., of a daughter.

McDonald.—On December 21, at The Green, Southall, Middlesex, the wife of George Bruce McDonald, M.D., of a son.

Mead.—On December 21, at Knighton, Anglesey, near Gosport, the wife of W. Meade, L.K.& Q.C.P., of a son.

PARISH.—On December 20, at 14, Steyne, Worthing, the wife of Frank Parish, M.R.C.S., L.R.C.P., of a daughter.

TOWNE.—On December 24, at 364, The Crescent, Kingsland, the wife of Alexander Towne, M.R.C.S., L.S.A., of a daughter.

TURTLE.—On December 26, at Kirkmead, Woodford, Essex, the wife of Frederick Turtle, M.D., of a son.

MARRIAGES.

CHANNER—DE RENZY.—On November 28, at Kirkee, India, Osborne Henry, fifth son of Colonel G. G. Channer (late Bengal Artillery), to Isabella Emily St. George, third daughter of Deputy Surgeon-General A. C. C. De Renzy, C.B.

DEATHS.

FAWSSETT, FREDERICK, F.R.C.S., at Wisbeach, on December 18, in his 76th year.

MACLEAN, J. M. K., Surgeon Major A.M.D., at the Royal Victoria Hospital, Netley, on December 19.

ROBINSON, STEPHEN, of 4, Furnival's-inn, second son of J. W. Robinson, M.D., at 160, Kennington road, on December 18, aged 34.

RUGG, RICHARD, F.R.C.S., formerly of Brighton, at Chichester, on December 23, in his 76th year.

STEVENS, N. HENRY, M.R.C.S., of 1, Norfolk-crescent, Hyde-park, W., and 14, Finsbury-circus, on December 20.

TANNER, WILLIAM KEARNS, M.D., F.R.C.S., at Lapps Island, Cork, on December 21, aged 71.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

COUNTY AND COUNTY OF THE BOROUGH OF CARMARTHEN INFIRMARY.—House-Surgeon. Salary £100 per annum, with board, lodging, fire, and light. Candidates must be registered to practise both in medicine and surgery, unmarried, and free from the care of a family, and it is desirable that they should have a knowledge of the Welsh language. The successful candidate will be required to enter into an agreement not to practise in the county of the borough of Carmarthen for a period of five years. Applications, with testimonials as to ability and character, to be sent to the Secretary, Mr. H. Howells, 11, Morley-street, Carmarthen, on or before January 1, 1883.

GENERAL INFIRMARY, NORTHAMPTON.—House-Surgeon. (*For particulars see Advertisement.*)

OWENS COLLEGE, MANCHESTER.—Demonstrator and Assistant Lecturer in Zoology. Salary £150 per annum. Full particulars of the office may be obtained from the Registrar. Applications, accompanied by testimonials, will be received up to January 6, 1883.

ST. GEORGE'S UNION, MIDDLESEX.—Medical Officer. (*For particulars see Advertisement.*)

ST. MARY'S HOSPITAL, PADDINGTON, W.—Out-patient Department.—Physician. Candidates must be members or fellows of one of the Colleges of Physicians in the United Kingdom, or graduates in medicine of one of the recognised universities. The appointment will be for one year; at the expiration of that time the holder will be eligible for re-election. Further particulars may be obtained of Mr. Pietro Mitchell, Secretary.

SURREY COUNTY LUNATIC ASYLUM, BROOKWOOD, NEAR WOKING STATION.—Senior Assistant Medical Officer. Salary £200, board, lodging, and washing. Applications and testimonials to be sent to the Committee of Visitors, Brookwood Asylum, near Woking Station, on or before January 3, 1883.

UNION AND PAROCHIAL MEDICAL SERVICE.

** The area of each district is stated in acres. The population is computed according to the census of 1881.

RESIGNATIONS.

Brentford Union.—Mr. Thomas Francis has resigned the First District: area 2267; population 17,103; salary £85 per annum.

Poole Union.—Mr. William Hoskins has resigned the Second District: area 12,393; population 3022; salary £80 per annum.

APPOINTMENTS.

Cheltenham Union.—Robert Kirkland, B.M., M.C. Glasg., to the Third District.

Luton Union.—Alfred E. Muncaster, L.R.C.P. Edin., L.R.C.S. Edin., to the Barton le Clay District.

Upton-upon-Severn Union.—John S. Cowley, M.R.C.S. Eng., L.S.A., to the First District and the Workhouse.

Upton-upon-Severn Union.—James Montford, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

TRANSFUSION AND ETHER INJECTIONS.—In a paper read at the Académie de Médecine (*Gaz. des Hop.*, December 21), Prof. Hayem related the results of his experiments in controversion of the accuracy of Prof. Verneuil's statement that transfusion is a useless operation, which may be superseded by hypodermic injections of ether. Having bled a dog almost to the point of death, he found that the injection of ether was attended with no durable effect, while transfusion produced a "true resurrection." When a large quantity of blood was withdrawn, the dilution of what remained by the transfer of the serum derived from another dog was also attended with the same success. The stimulation by ether only produces an increase in the energy of the cardiac contractions and a notable increase in the number of the pulsations, but does not give rise to any increase of the pressure of the blood nor of the rectal temperature.

SCURVY IN INDIA.—Deputy Surgeon-General W. J. Moore, C.I.E., points out, in a paper read before the Medical and Physical Society of Bombay, and published in the *Transactions*, the great prevalence of scurvy in Western India. It is not always manifested by the usual and familiar signs in an aggravated form, but may be latent, ready to break out when an exciting cause, such as sickness, fatigue, exposure, scarcity, is superadded to the already existing diathesis. Several influences, he considers, conspire to develope the scorbutic diathesis—improper and insufficient diet apart from the want of fresh vegetables, alternations of temperature, damp, malaria, fatigue, and bad water. He holds that there is no Indian indigenous anti-scorbutic vegetable, states that lime-juice is very apt to deteriorate in a hot climate, and recommends dried unripe mango. The blue line often observed on the gums of natives does not give evidence of either a scorbutic diathesis or scurvy.—*Indian Med. Gaz.*, November 1.

APPOINTMENTS FOR THE WEEK.

December 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 1½ p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; London, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Light and the Eye."

January 1, 1883. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Women, 2 p.m.

2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Light and the Eye."

PATHOLOGICAL SOCIETY, 8½ p.m. Annual General Meeting for Election of Officers. Specimens: Dr. Sharkey—Arteritis at an Early Stage of Syphilis. Dr. Angel Money—Hepatic Cirrhosis in a Child. Dr. Norman Moore—1. New Growths from Alimentary Canal; 2. Chronic Inflammation of Glottis; 3. Endocarditis with Disseminated Tubercle. Mr. W. H. Kesteven—Spina Bifida in a Child. Mr. R. J. Lunn—Renal Abscess with Calculus (card specimen). Dr. F. C. Turner—1. Fibrinous Coagulum loose in Left Auricle of the Heart; 2. Fibrinous Coagulum attached to Pleura; 3. Lardaceous Disease of Liver. Mr. Shattock—Polypi of Bladder in a Child. Mr. J. B. Sutton—Animal Rickets. Dr. B. G. Morison—Crystalline Deposit in Hepatic Duets of an Ox (card specimen).

3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; Samaritan, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 1½ p.m.; St. Peter's Hospital for Stone, 2 p.m.; National Orthopædic, Great Portland-street, 10 a.m.

EPIDEMIOLOGICAL SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Mr. Percival Gordon Smith, "On the Planning and Arrangement of Hospitals for Infectious Disease."

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.; Charing-cross, 2 p.m.; London, 2 p.m.; North-West London, 2½ p.m.

ROYAL INSTITUTION, 3 p.m. Professor Tyndall, "On Light and the Eye."

HARVEIAN SOCIETY, 8½ p.m. Dr. Morton, "On a Successful Case of Ruptured Perineum." Mr. Noble Smith, "On Lateral Curvature of the Spine" (with specimens).

5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.; Guy's, 1½ p.m.; St. Thomas's (ophthalmic operations), 2 p.m.; King's College (by Mr. Lister), 2 p.m.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Grey Thompson, Surgeon Superintendent Launceston Hospital, Tasmania.—Letter and remittance received.

Sympathiser.—There are thirty-one cabmen's shelters now open in London. The erection and furnishing of each shelter costs about £150, and from the time of its being opened it becomes self-supporting.

Old Mortality.—The Portugal-street burial-ground, known as the "*Green Ground*," was closed under an Act of Parliament in 1851 for enlarging King's College Hospital. It was crowded to excess with dead bodies. It is to a member of our profession, Mr. George Alfred Walker, M.R.C.S., that the public is indebted for abolishing the interment of the dead in the midst of the living. This gentleman, who retired some years ago, is still living in Wales.

Dr. Williams.—The terms are generally regarded as synonymous, notwithstanding the old distich:

> "Si fluit ad pectus, dicatur rheuma *catarrhus*,
> Ad faucis *bronchus*; ad nares, esto *coryza*."

Thomas Guy.—You will always find the information in our advertisement columns. We believe the time has expired for sending in the certificates. Mr. Cooper Forster is Vice-President of the College and a member of the Court of Examiners.

Jersey.—There has been some excitement lately on the question of publicans' licences, the Licensing Board having, some time ago, given notice that they would not renew licences to persons keeping grocery stores, milk-shops, or livery stables. A large number of persons will be affected by this decision, and publicans are petitioning the Licensing Board to withdraw their resolution. There is also a strong feeling in the other direction, and the Board is solicited to maintain the resolution. Our sympathies are with the supporters of the determination of the Licensing Board.

Mr. Morris, Hampstead.—The celebrated Dr. Sydenham died in Pall-mall in 1689, where he practised next door to "The Golden Pestle and Mortar," which sign remained until a few years ago, when the houses were pulled down to be replaced by one of the Government offices.

Died in his One Hundred and Fifth Year.—The death is announced of Thomas Bramley, a resident and native of Ilkeston, in his one hundred and fifth year, he having been born on Christmas-eve, 1777. Until very recently, Bramley, though afflicted with lameness and deafness, was in full possession of his mental faculties. He used to describe to his neighbours the appearance of Ilkeston Common before its enclosure, which took place in the year 1794. He leaves a large number of descendants, and a son seventy years old.

Notification of Infectious Disease, Glasgow.—On the Town Council resuming last week, the consideration of the draft Police Bill, the Lord Provost, before any discussion on the question was entered upon, made a lengthened statement with reference to the minute of the Revising Committee recommending that the proposal to make compulsory the notification of infectious disease by medical men should be substantially adhered to. His Lordship replied to the statements made on this subject by members of the Glasgow Faculty, by quoting from a number of reports given by mayors and officers of health with regard to the operation of compulsory notification in English cities, the testimony universally given being that its effect had been to reduce and not to increase disease or its concealment. At a later stage of the proceedings the portions of the Bill in question were practically adopted.

Tunstall: High Mortality.—The Medical Officer of Health reports that the measles epidemic was still prevalent in certain parts of the district, and the fatal cases had not been confined to the locality. The number of deaths was fifty-three, thirty seven of which were of children under five years of age. The death-rate was forty-five per thousand of the population.

The Darwen "Off" Licences.—The decision of Justices Field and Stephens was to the effect that all licences for the sale of intoxicating drinks, whether for consumption on or off the premises, are held from year to year at the discretion of the licensing magistrates, whose right and duty it is to review every year the wants and requirements of their district, with a view to seeing whether the renewal of existing licences is required in the interests of the public. It is stated that thirty-four "off" licensed beer-houses in Darwen will have to be closed by January 4 next. The power thus shown to be held by the licensing magistrates will, it is expected, be in the future largely used.

Hospital Sunday Fund, Birmingham.—The collections this year were for the amalgamated charities, and the total amount raised was £5152, which made up a total sum of £10,870 contributed to the local hospitals and medical institutions through this fund in Birmingham. Next year's collection, which will be the twenty-fifth year of the periodical collections for local charities, will be in aid of the General Hospital.

Medical Missionary Society, Glasgow.—From the recent annual report it appears that the directors have been enabled to carry out to some extent the suggestion made last year as to the employment of medical missionary students. During the year they had received in legacies £770, which had been added to the building account. This now amounted to £1855 5s., and it is intended with it to erect permanent premises on the South Side. The extent of the medical work of last year was considerably in excess of that of the previous twelve months, as neither of the two dispensaries needed to be closed as in former years.

Foreign Doctors Abroad.—The French doctors in Nice are, it appears, up in arms against their English and foreign brethren established in that city. The former have held a general meeting, and protests were entered against the manner in which alien practitioners monopolise the most lucrative practice; and, *inter alia*, it was urged that many of the intruders are not qualified French physicians, and consequently have no right to practise anywhere in France.

Body-snatching: Philadelphia.—Touching this affair, to which we lately referred, when the superintendent of the cemetery (the Lebanon Cemetery) whence the bodies were stolen was taken into custody, he admitted that he was paid three dollars for every body taken from the cemetery. He was quite unable to say how many graves had been robbed. He had been in office at the cemetery eleven years, and the body-snatching had been going on for nine years. Sometimes if the waggon came and the driver said they were "short," the deficiency was made up by opening coffins in the receiving vault and "snatching" the corpses. The farce of burying the empty coffins was gone through the next day. The prisoners were subsequently brought before the Court, and committed, in default of payment of 5000 dollars. The waggon employed for body-snatching purposes at night was used by day as a mail cart.

Central Italy.—A correspondent writes—"The autumn and winter in Central Italy thus far have been rainy and sunless to an unprecedented degree. Since October there have been no two days of consecutive sunshine, and few days without more or less rain, while several heavy snowfalls have occurred. The season has been as cheerless a one to people looking for sunshine and a mild winter as they would have found anywhere on the Atlantic coasts. Florence is very full of strangers, who are experiencing discomforts that are not to be found in the visions of sunny Italy in which people at home indulge."

COMMUNICATIONS have been received from—

Dr. J. W. Moore, Dublin; Surgeon-Major W. C. Coles, M.D., Bourton-on-the-Water; Dr. Irwin, Liverpool; The Honorary Secretary of the Obstetrical Society, London; The Registrar of the Apothecaries' Hall, London; Dr. Richard T. Smith, London; The Honorary Secretary of the Harveian Society, London; The Secretary of the Epidemiological Society, London; The Secretary of the Royal Institution, London; Messrs. Thomas Dickson and Gray, London; The Registrar-General, Brisbane; Colonel Frank Bolton, London; Dr. R. Lawson, Edinburgh; Mr. T. M. Stone, London; Dr. W. A. McKeown, Belfast; Dr. J. Mitchell Bruce, London; Mr. R. W. Parker, London; The Secretary of the South London School of Pharmacy, London; The Honorary Secretary of the Pathological Society of London; Mr. J. Chatto, London.

BOOKS, ETC., RECEIVED—

Illustrations of Clinical Surgery, by Jonathan Hutchinson, F.R.S., fasc. xv.—Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for 1882—Medical Education, Character, and Conduct, by W. T. Gairdner, M.D.—What are the Advantages of a System of Notification of Infectious Diseases, etc., by H. D. Littlejohn, M.D.—Annual Report of the National Board of Health for the Year 1882.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hopitaux—Gazette Médicale—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Wiener Medicinische Wochenschrift—Revue Médicale—Gazette Hebdomadaire—Nature—Boston Medical and Surgical Journal—Louisville Medical News—Deutsche Medicinal Zeitung—Centralblatt für Gynakologie—Gazzetta degli Ospitali—Le Concours Médical—Centralblatt für die Medicinischen Wissenschaften—Welcome—Canadian Journal of Medical Science—Archives of Medicine—Night and Day—Revue d'Hygiène—Revue des Sciences Médicales—Revista de Medicina—Centralblatt für die Gesammte Therapie—Halifax Guardian, December 23—Sunday at Home—Friendly Greetings—Leisure Hour—Girl's Own Paper—Boy's Own Paper—Students' Journal and Hospital Gazette—Quarterly Therapeutic Review.

South London School of Pharmacy.—The following are the successful candidates in the competition held last week at this School:—Senior Chemistry—no prize awarded; Junior Chemistry—Mr. Parker (medal) and Mr. Oldershaw (certificate); Botany—Messrs. Pridmore (medal) and Harvey (certificate); Materia Medica—Messrs. Armstrong (medal) and Oldershaw (certificate); Pharmacy—Messrs. Oldershaw (medal) and Johnson (certificate). Extra certificates were gained by Messrs. Burton, Horsfield, Hurcombe, Austin, Arnott, and Hopkinson.

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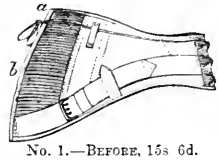

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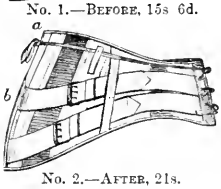

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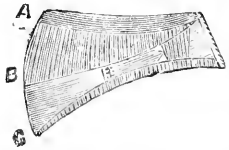

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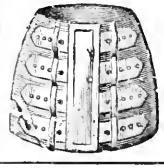

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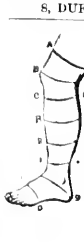

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